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Mathematics

TEACHERS' Manual

(Class 1 to 5)

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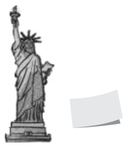
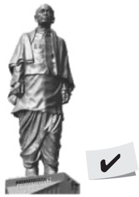
ANSWER KEY

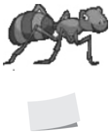
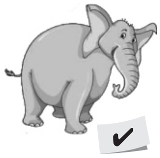
Class 1

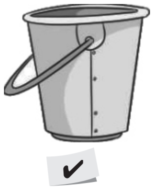
Chapter 1 : Look and Identify

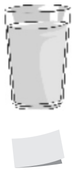
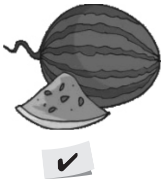
Exercise 1.1

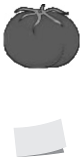
A. Tick (✔) which is bigger.

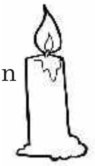



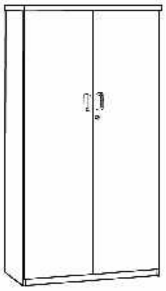


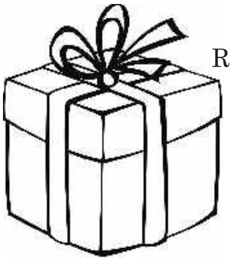





B. Colour the bigger objects red and the smaller green.


Green


Red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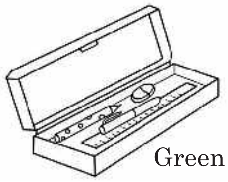
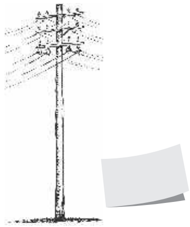
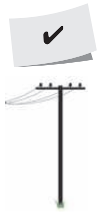
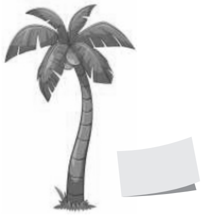
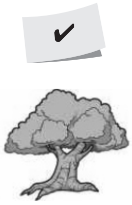
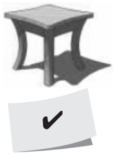

Green

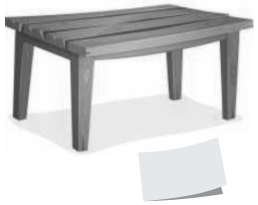
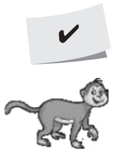
Exercise 1.2

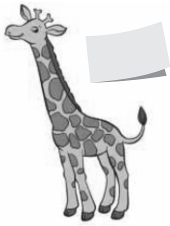
A. Tick (✔) the shorter.

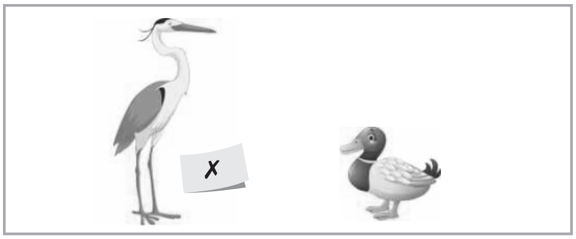



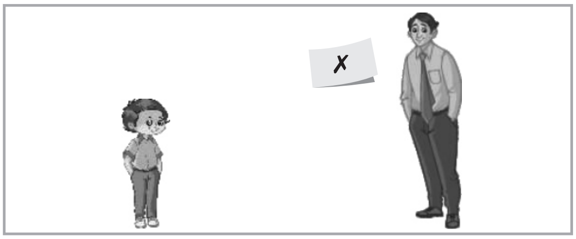


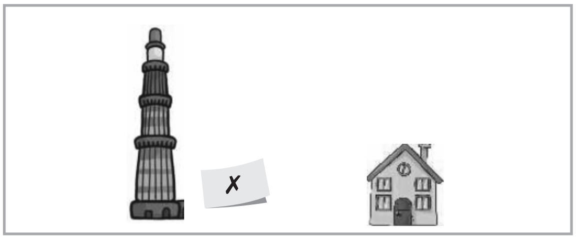



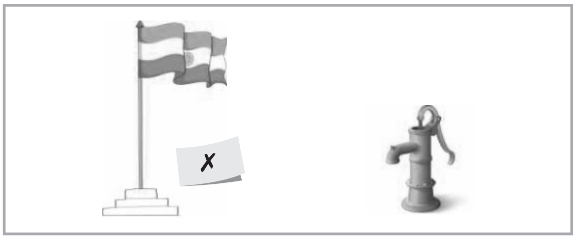


B. Cross (✗) the taller.

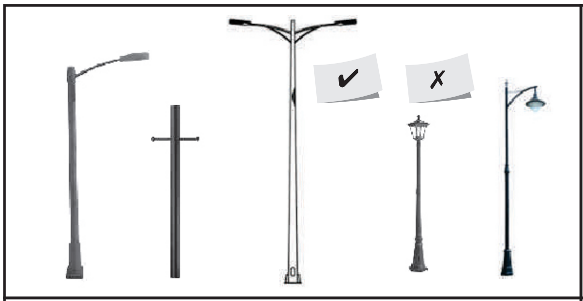


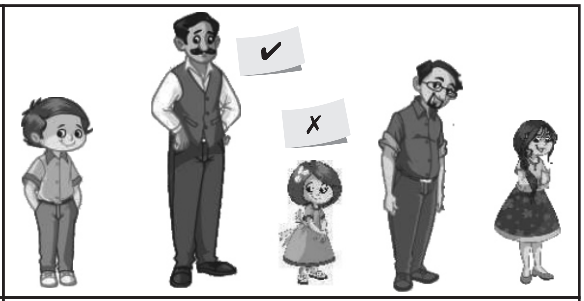


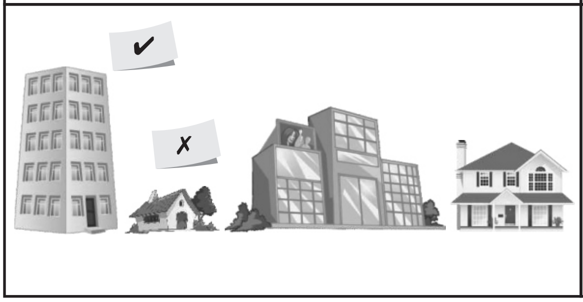


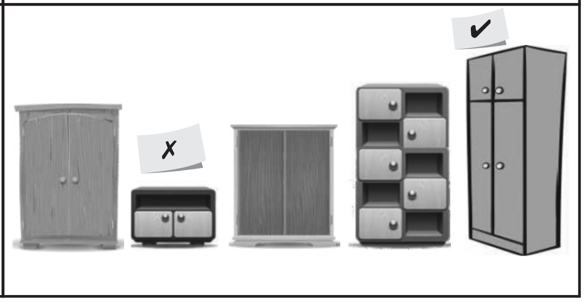


C. Tick (✔) the tallest and cross (✗) the shortest.

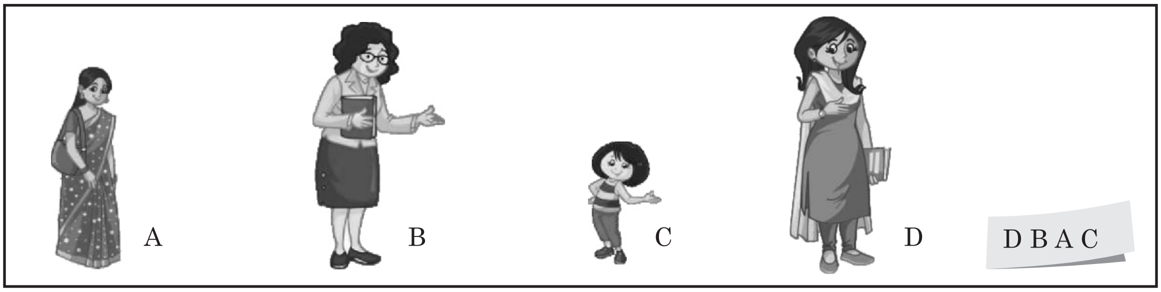




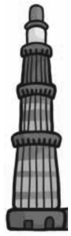




D. Arrange from the tallest to the shortest :



E. Arrange from the tallest to the shortest :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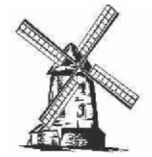
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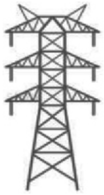
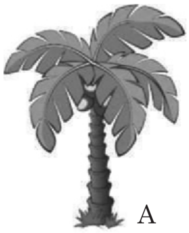
C


D

C A D B

F. The correct order of increasing heights is :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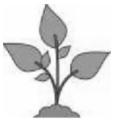
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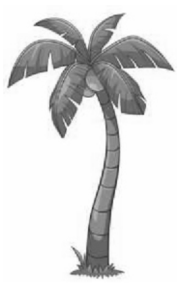
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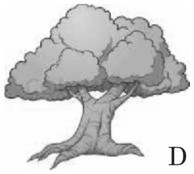
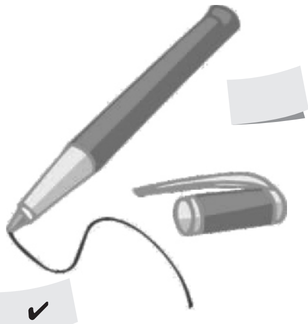
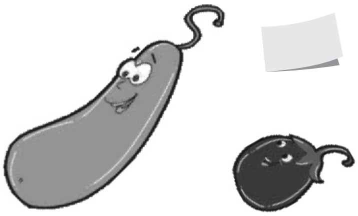
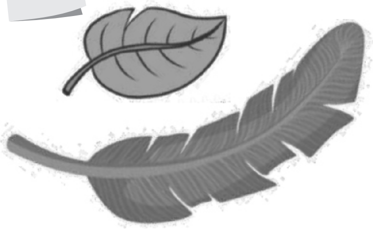
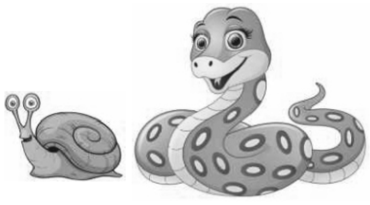
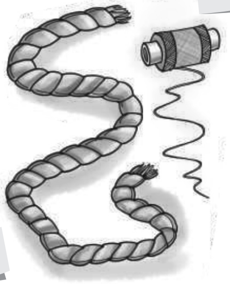
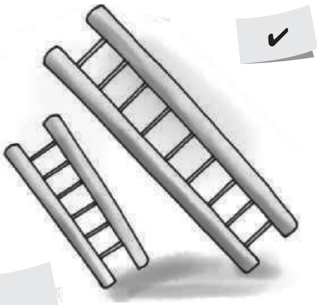

D

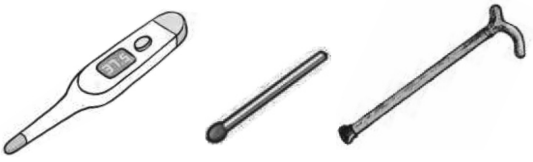
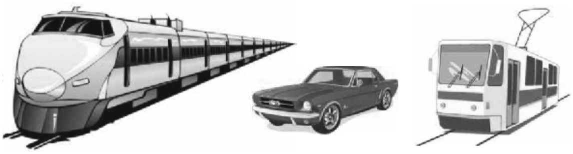
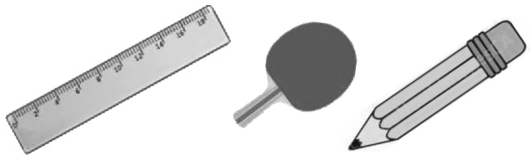
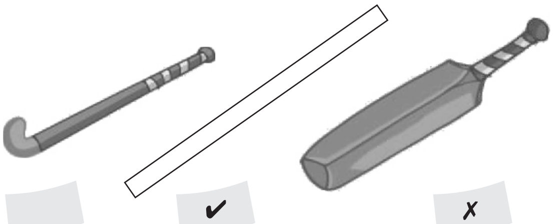
B D A C

Exercise 1.3

A. Put a tick (✔) on the longer objects.

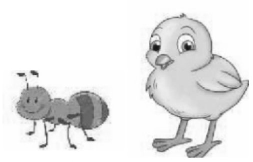
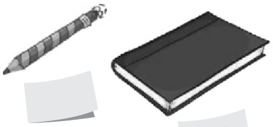
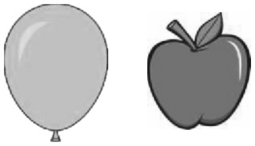
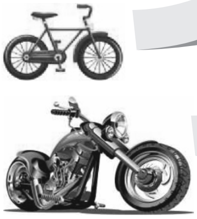
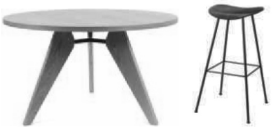
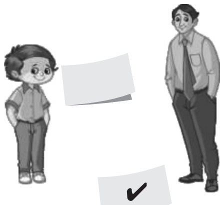
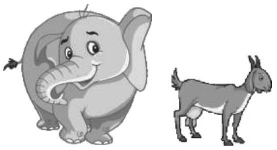
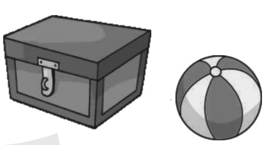
 ☐ ✔	 ☐ ✔	☐  ✔
 ☐ ✔	☐  ✔	✔  ☐

B. Tick (✔) the longest and cross (✗) the shortest.

 ☐ ✗ ✔	 ✔ ✗ ☐
 ✔ ✗ ☐	 ☐ ✔ ✗

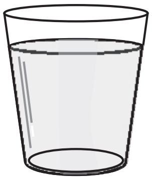
Exercise 1.4

A. Tick (✔) the heavier object.

 ☐ ✔	 ☐ ✔	 ☐ ✔	 ☐ ✔
 ✔ ☐	 ☐ ✔	 ✔ ☐	 ✔ ☐

Exercise 1.5

A. Tick (✔) the container which has more liquid.



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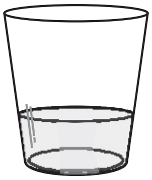

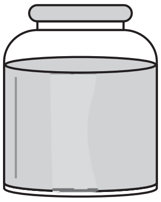

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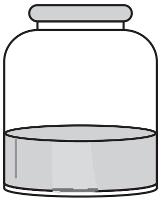

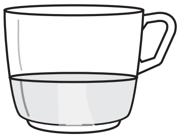

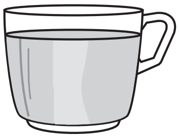

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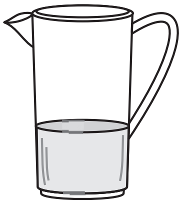

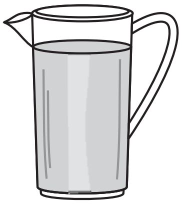

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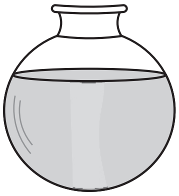

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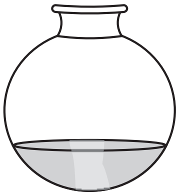

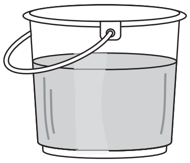

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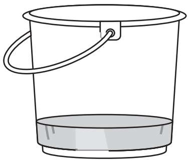

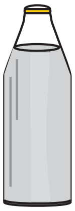

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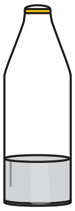
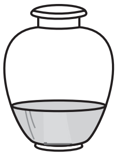
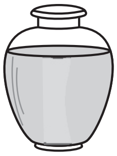
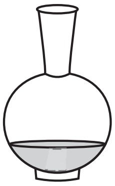
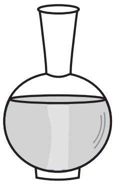






✔





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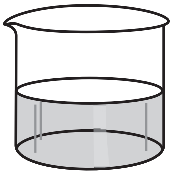
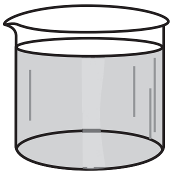
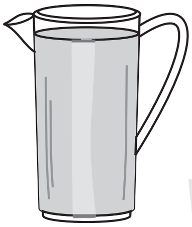




✔

B. Tick (✔) the container which has the largest quantity and cross (✗) which has the smallest quantity of liquid in it.



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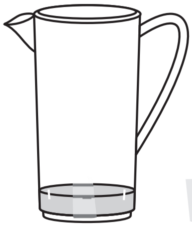
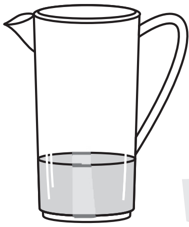
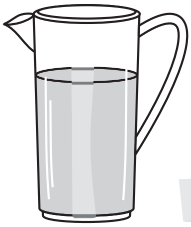
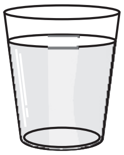
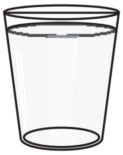


✗









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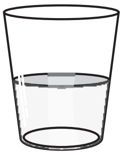
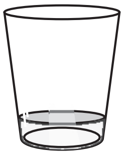
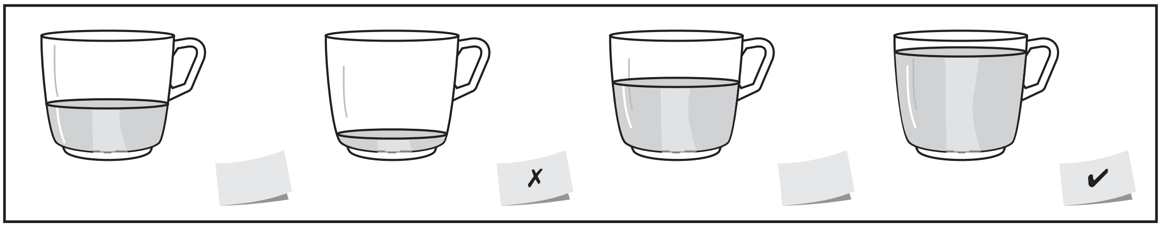
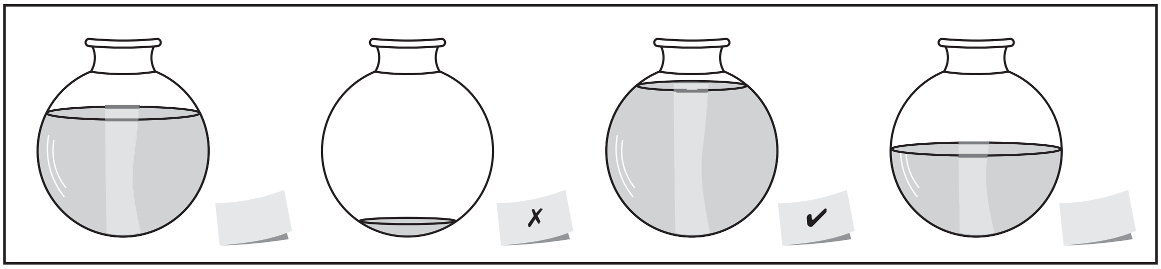
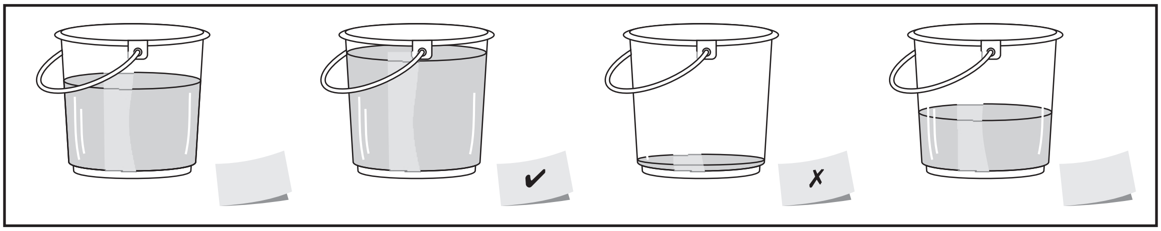




✗

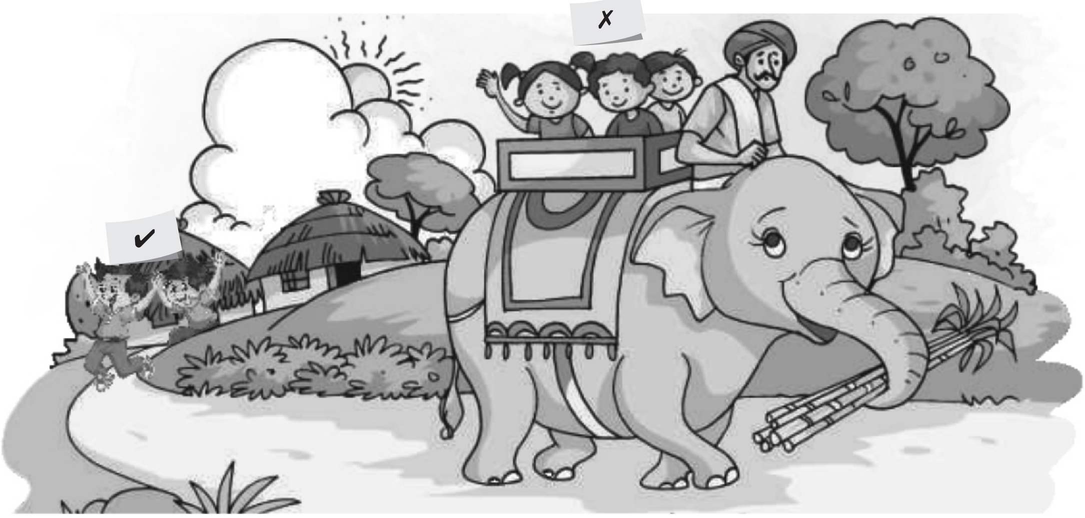




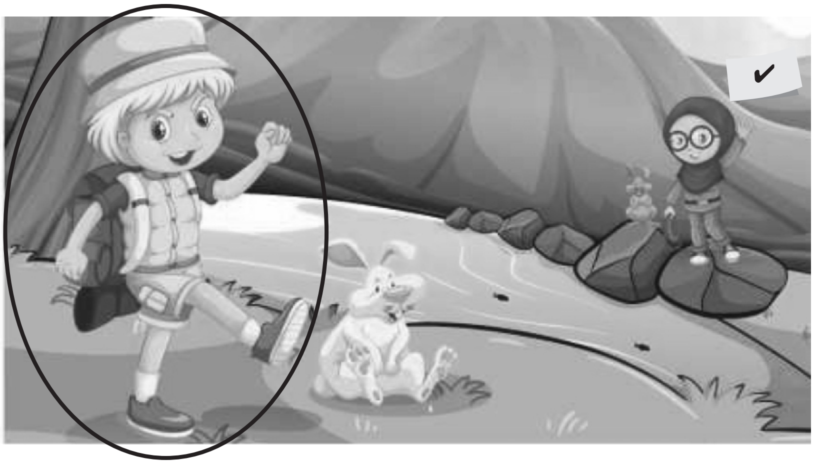


Exercise 1.6

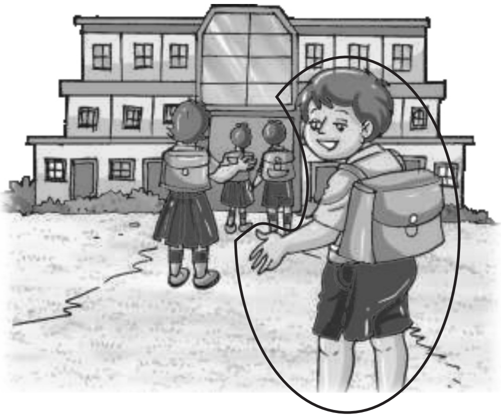
A. Tick (✔) the children near the hut and cross (✗) the one far from it.



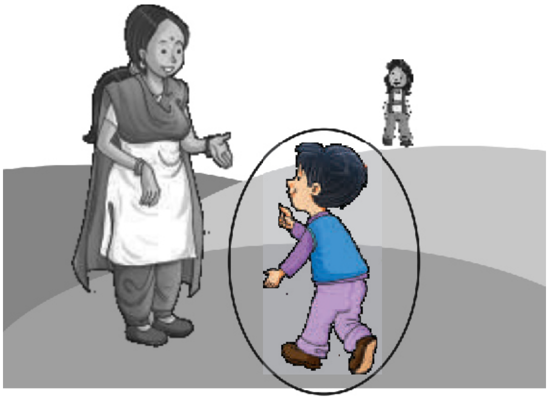
B. Circle the child near the rabbit and tick (✔) the one far from it.



C. Circle the boy farthest from the school.



D. Circle the child nearest to the woman.

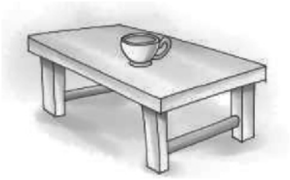


Exercise 1.7

A. Tick (✔) the correct word to fill in the blanks.

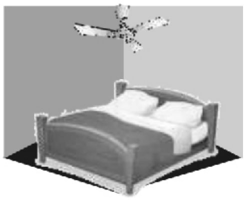
1. A cup is lying on the table.

over ☐ on ☑



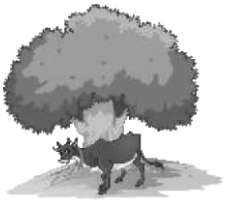
2. A fan is above the bed.

on ☐ above ☑



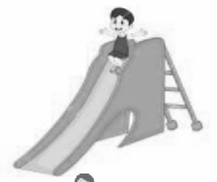
3. A cow is standing under the tree.

under ☑ down ☐



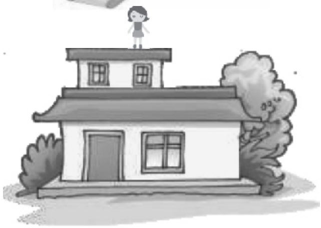
4. A child is sliding down.

up ☐ down ☑



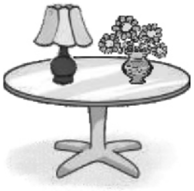
5. A girl is standing on the top of the building.

top ☑ bottom ☐



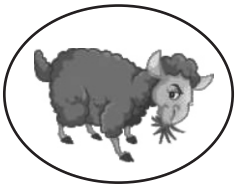
6. There is a lamp to the left of the flower vase.

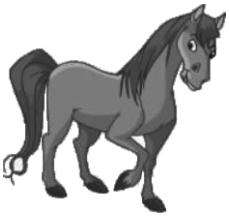
right ☐ left ☑

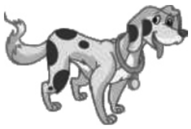


Exercise 1.8

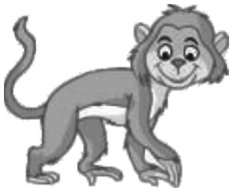
A. Circle the animal that is before the horse.

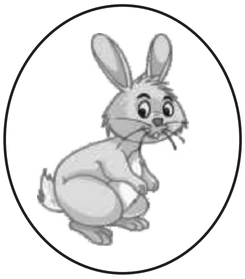


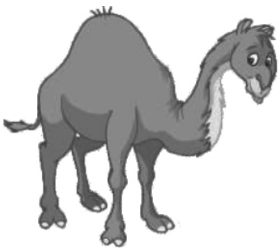




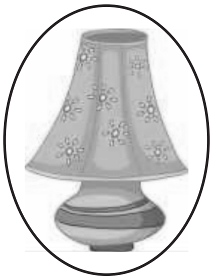
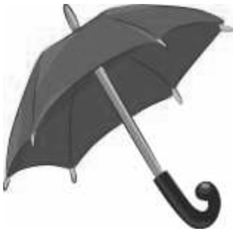
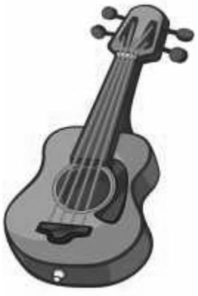
B. Circle the animal that is after the monkey.



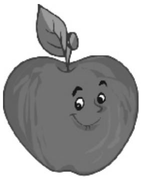
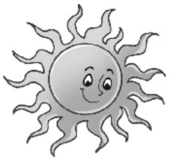
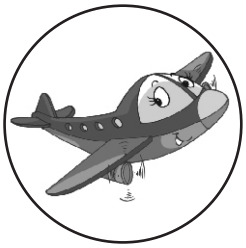




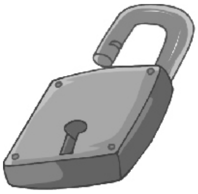
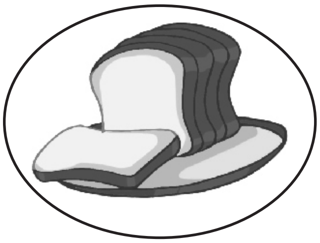
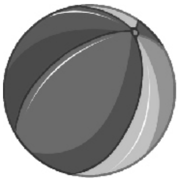
C. Circle the thing that is before the umbrella.

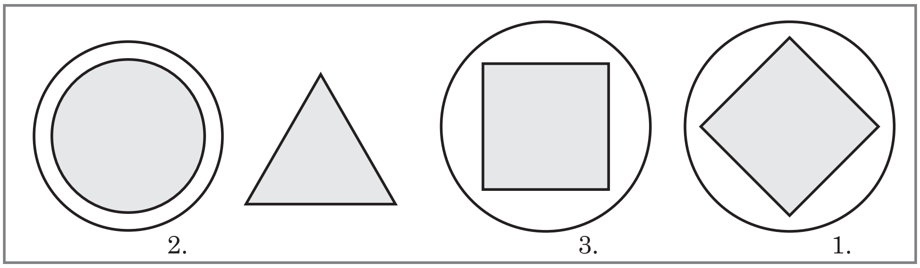
D. Circle the thing that is after the sun.

E. Circle the thing that is before the ball.

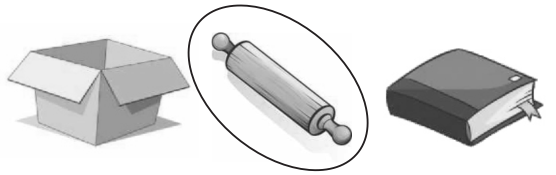
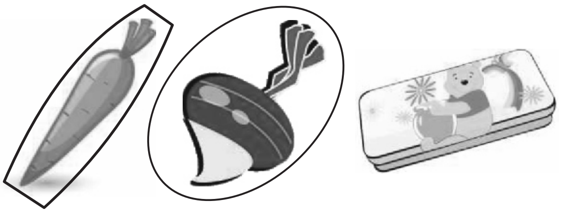
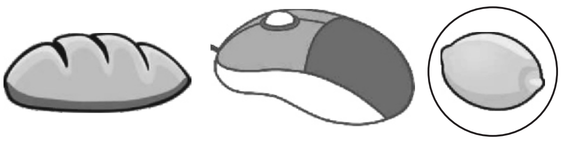
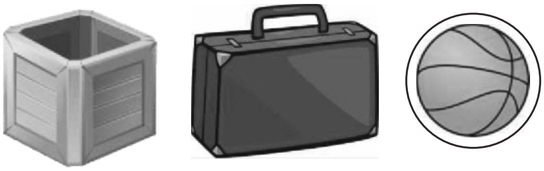
F. Look at the shapes in the box below. Then follow the directions to circle the correct shapes in each of the boxes.



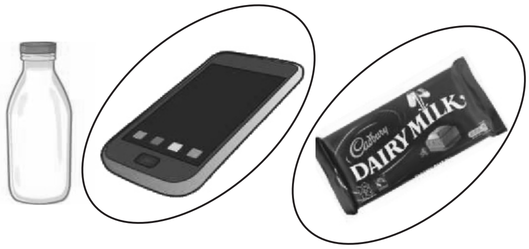
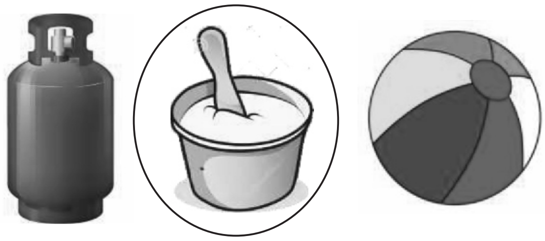
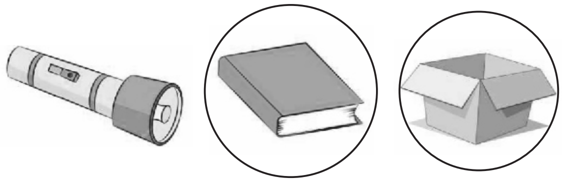
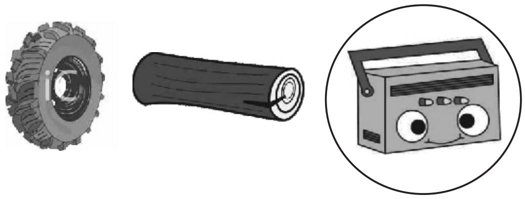
1. Circle the shape that is after the square □.
2. Circle the shape that is before the triangle △ .
3. Circle the shape that is before the diamond ◇.

Exercise 1.9

A. Draw a circle around the objects that rolls.

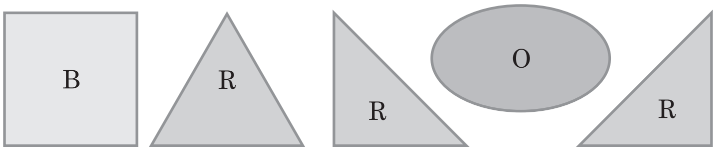
B. Draw a circle around the objects that slides.

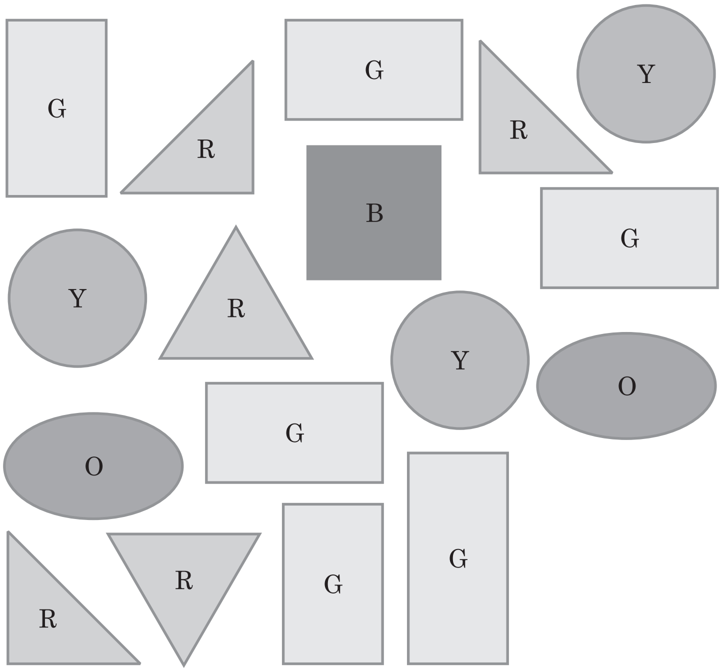
	
	

Chapter 2 : Shapes around Us

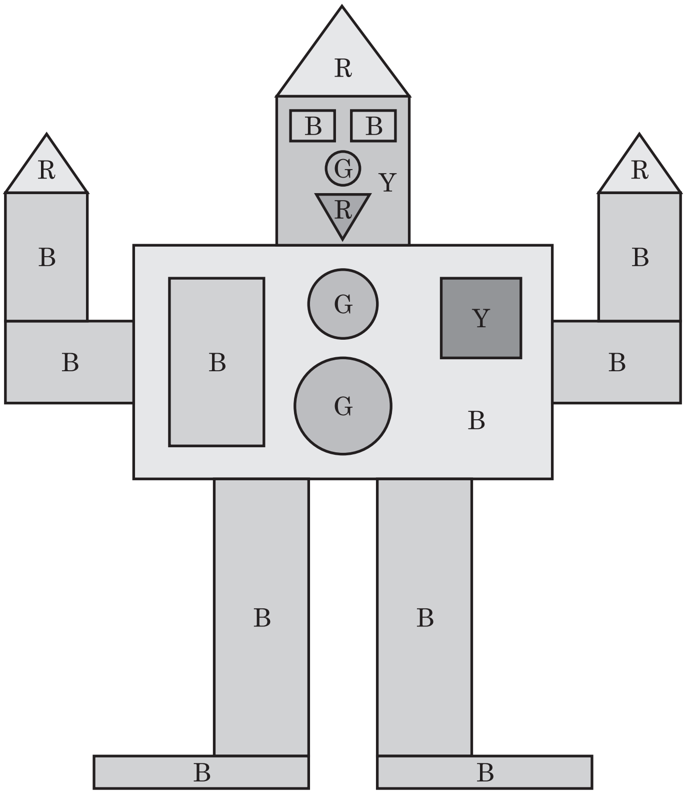
Exercise 2.1

A. Colour the triangles red, the squares blue, the rectangles green, the circles yellow and the ovals orange.



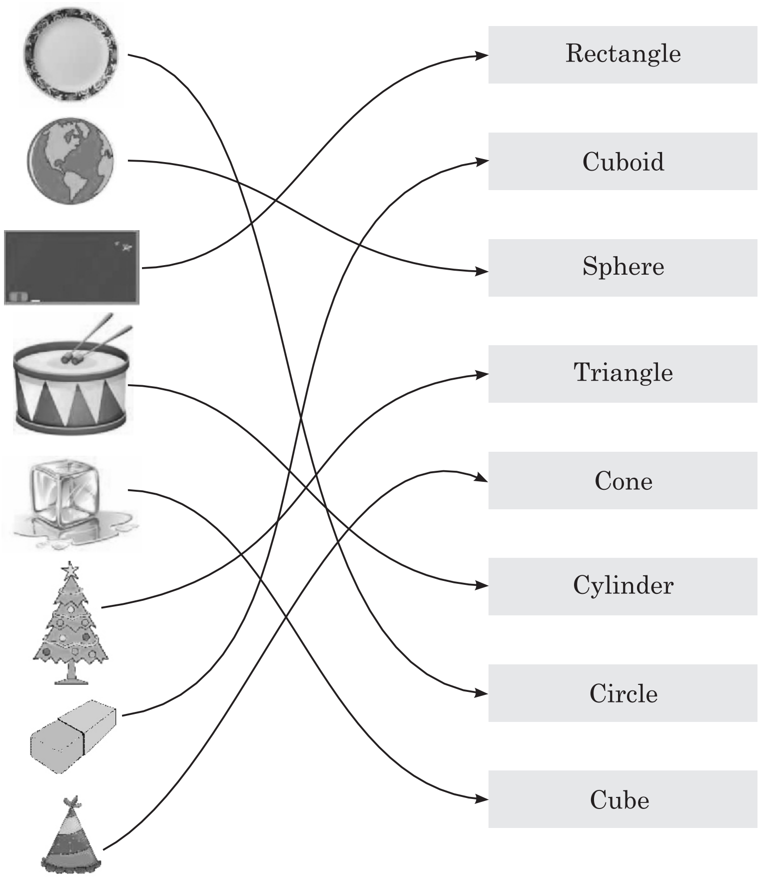

G
R
G
R
Y
B
G
Y
R
Y
O
G
O
R
R
G
G

B. Colour the squares yellow, the triangles red, the rectangles blue and the circles green in the given figure.

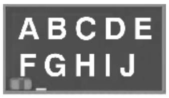
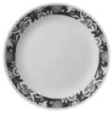
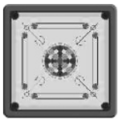
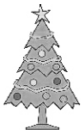
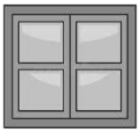
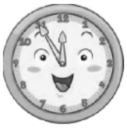
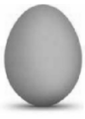
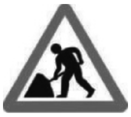

R
B
B
G
Y
R
R
R
B
B
G
Y
B
B
B
G
B
B
B
B
B

Exercise 2.2

A. Match the objects with their shapes.


Rectangle
Cuboid
Sphere
Triangle
Cone
Cylinder
Circle
Cube

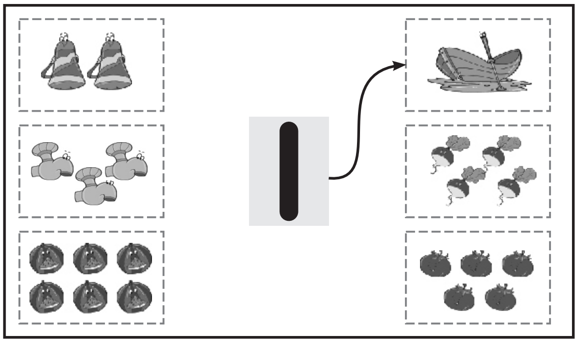
B. Write the name of shapes of these objects.

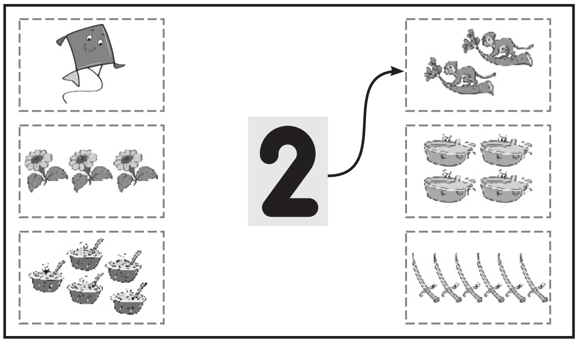
 ABCDE FGHIJ Rectangle	 Circle	 Square	 Sphere	 Triangle	 Square
 Circle	 Rectangle	 Oval	 Triangle	 Circle	 Square

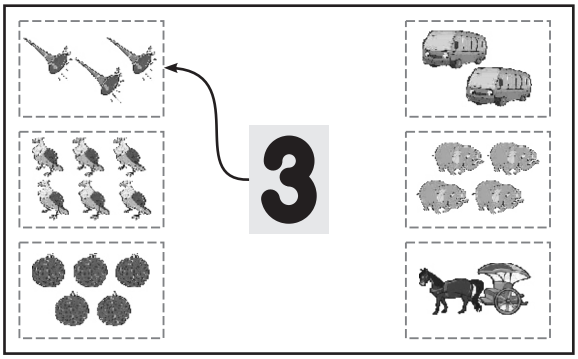
Chapter 3 : Numbers from 1 to 10

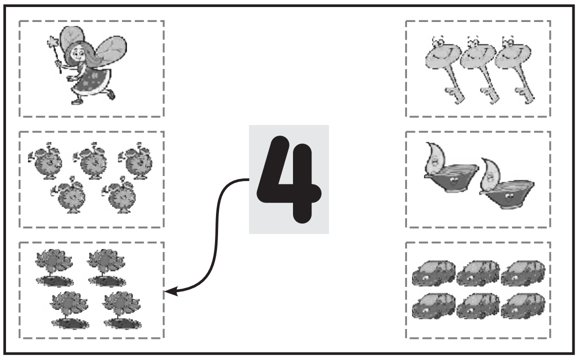
Exercise 3.1

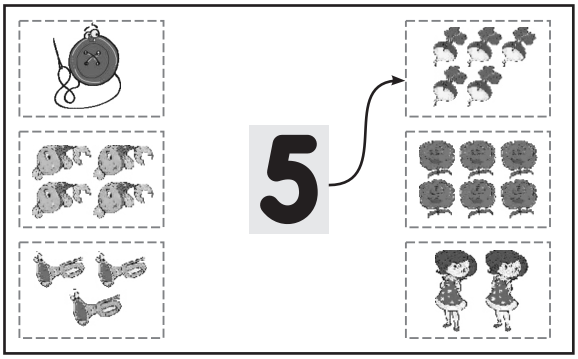
A. Count and match :

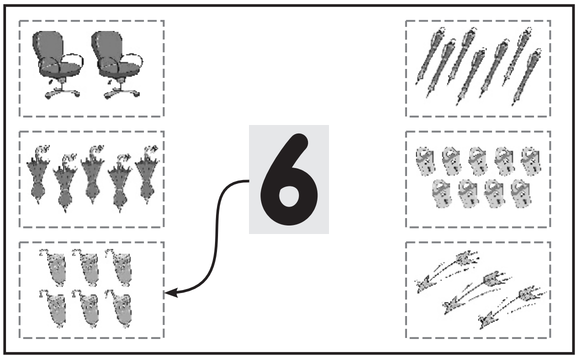


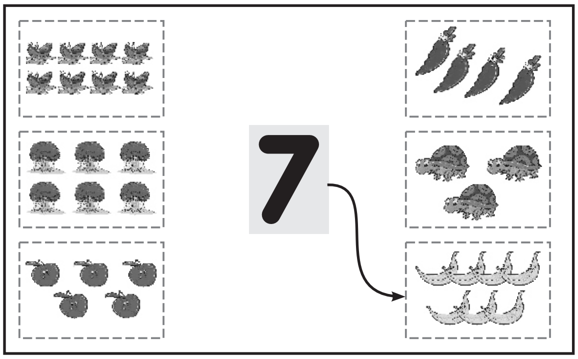


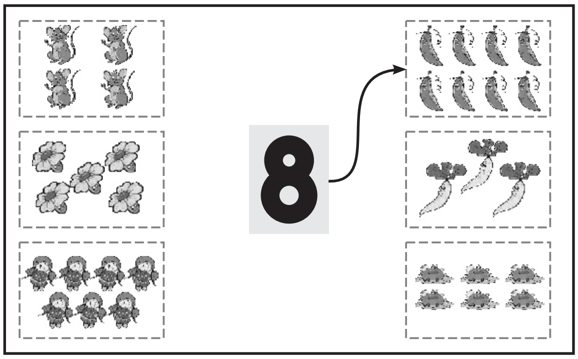


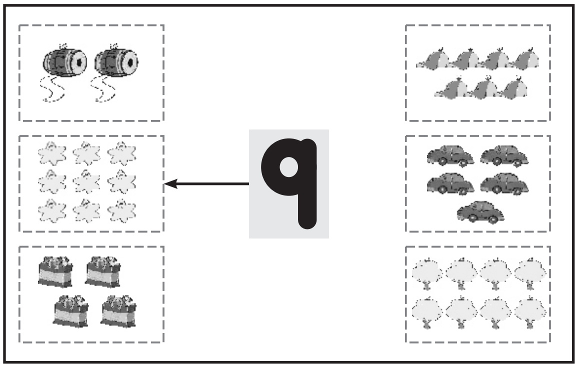


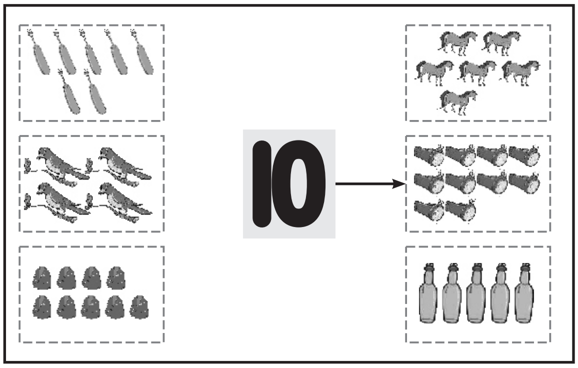




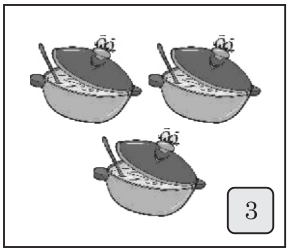


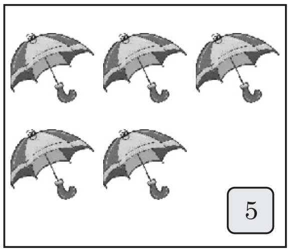


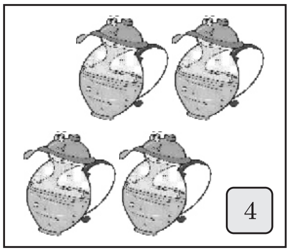


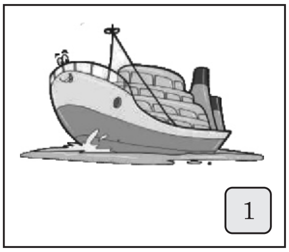


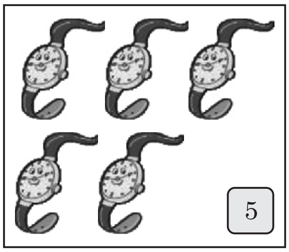
B. Count the number of objects in the collection and write it in the placeholder.

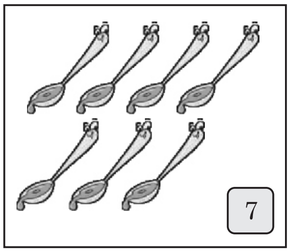


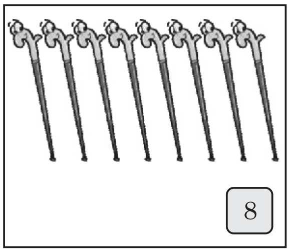


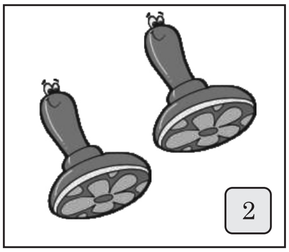






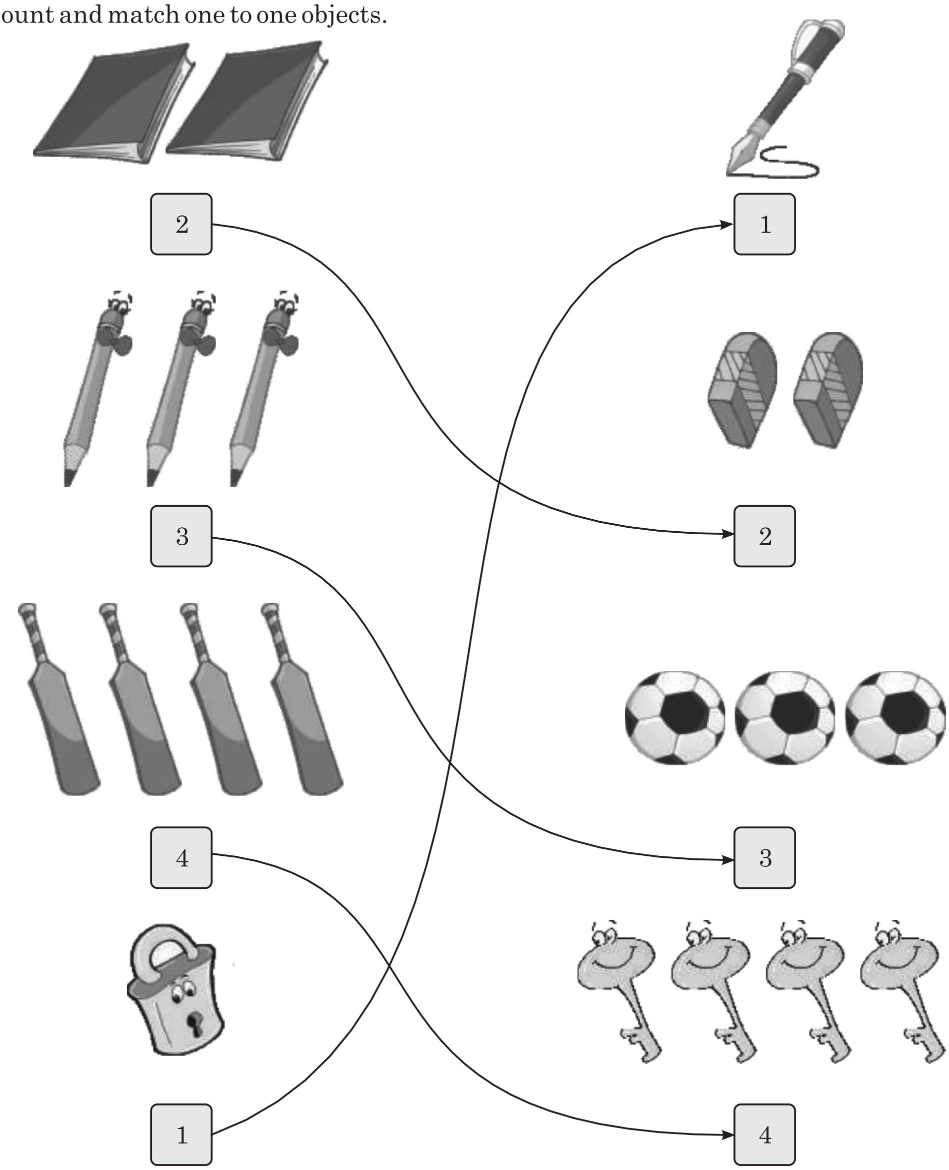




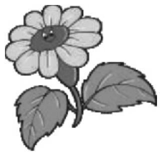


Exercise 3.2

A. Count and match one to one objects.



B. In each row, tick (✔) the one which is different.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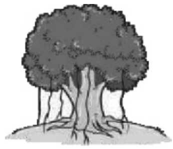
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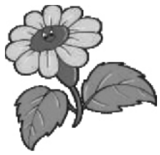
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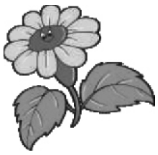
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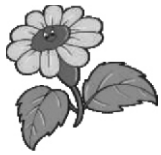
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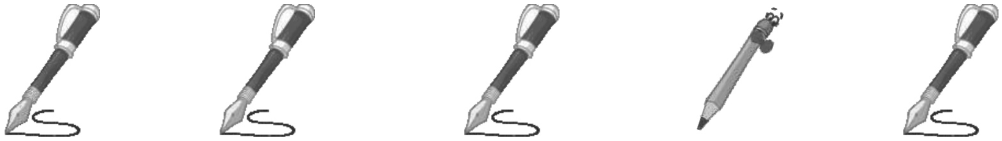
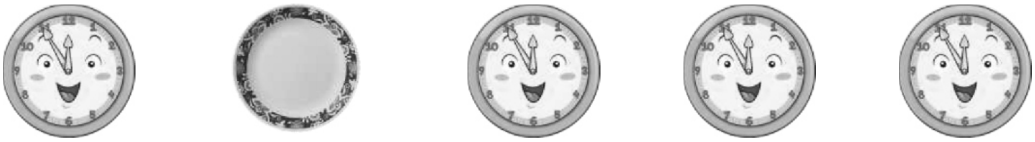
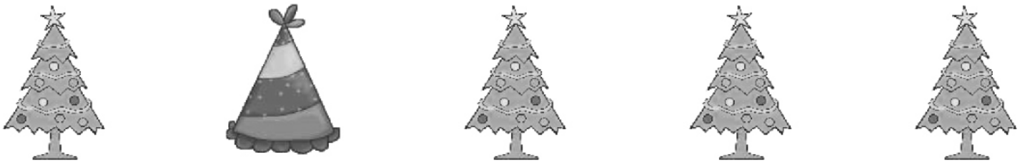


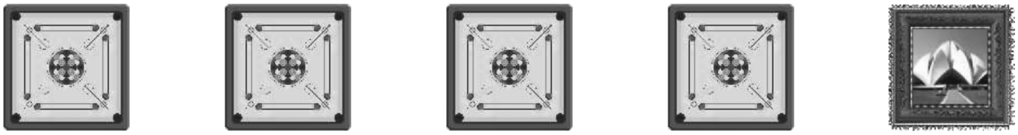
☐ ☐ ☐ ✓ ☐



☐ ✓ ☐ ☐ ☐



☐ ✓ ☐ ☐ ☐



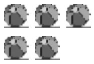
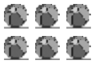
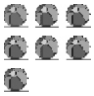
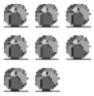
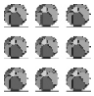
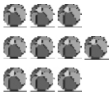
☐ ☐ ☐ ☐ ✓

Chapter 4 : Sequence of Numbers

Exercise 4.1

A. Write the numerals.

●	1	1	1	1	1	1	1	1
● ●	2	2	2	2	2	2	2	2
● ● ●	3	3	3	3	3	3	3	3
● ● ● ●	4	4	4	4	4	4	4	4

	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9
	10	10	10	10	10	10	10	10

Exercise 4.2

Fill in the place holders :

Just After

5 is just after 4

3 is just after 2

7 is just after 6

9 is just after 8

8 is just after 7

2 is just after 1

Just Before

8 is just before 9

2 is just before 3

4 is just before 5

4 is just before 5

9 is just before 10

6 is just before 7

In Between

3 is in between 2 and 4

2 is in between 1 and 3

8 is in between 7 and 9

9 is in between 8 and 10

7 is in between 6 and 8

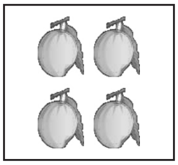
4 is in between 3 and 5

9 is in between 8 and 10

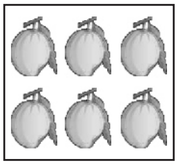
5 is in between 4 and 6

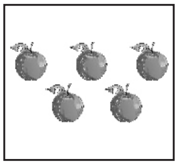
Exercise 4.3

A. Count, write and put the correct symbol >, < or = in the boxes.

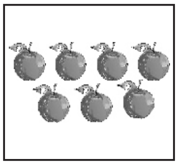


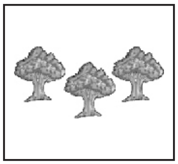
4 < 6



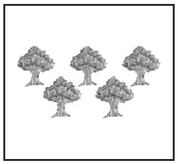


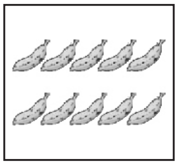
5 < 7



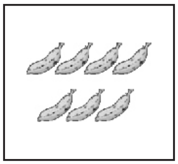


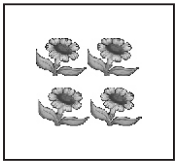
3 < 5



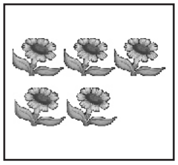


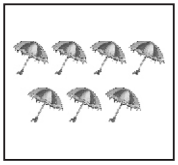
10 > 7



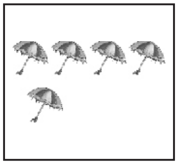


4 < 5



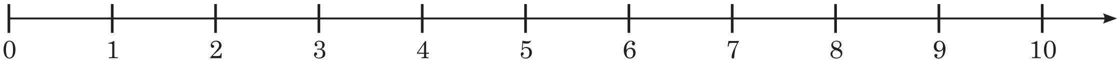


7 > 5



Exercise 4.4

Look at the number line given below.



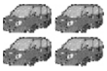
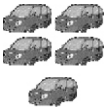
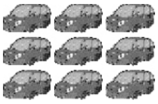
Put the correct symbol > or < in the placeholder.

6 > 5	7 < 10	2 < 6
7 > 6	8 > 4	5 < 7
9 > 5	4 > 2	6 > 4
4 < 7	3 < 8	8 < 9
8 < 10	9 < 10	10 > 6
8 > 4	5 < 6	8 > 3
9 > 6	7 > 3	5 > 2
3 < 5	4 < 9	5 < 8

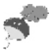
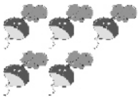
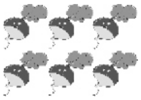
Chapter 5 : Addition

Exercise 5.1

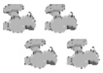
Count the number of objects in each collection and fill in the placeholder.


and

make


4 + 5 = 9


and

ake


1 + 5 = 6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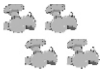
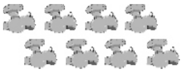
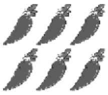

make


4 + 4 = 8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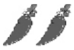
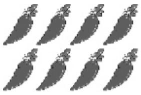
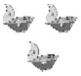

make


6 + 2 = 8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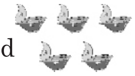
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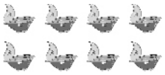
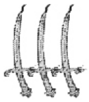


3 + 5 = 8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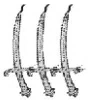
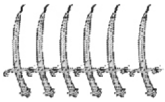
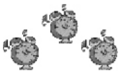
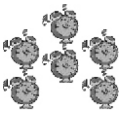
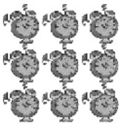
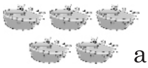

make


3 + 3 = 6


and

make


3 + 6 = 9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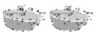
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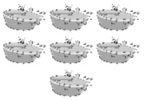
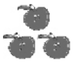


5 + 2 = 7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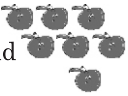
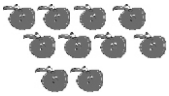

make


3 + 7 = 10

Exercise 5.2

A. Add by drawing lines.

3 |||
+ 2 ||
5

2 ||
+ 3 |||
5

3 |||
+ 4 ||||
7

2 ||
+ 5 |||||
7

4 ||||
+ 3 |||
7

6 ||||||
+ 2 ||
8

5 |||||
+ 3 |||
8

7 |||||||
+ 2 ||
9

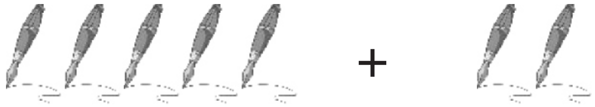
3 |||
+ 6 ||||||
9

B. Fill in the placeholders.

1 + 1 = 2
2 + 2 = 4
4 + 3 = 7
3 + 3 = 6
2 + 3 = 5
5 + 3 = 8
1 + 6 = 7
2 + 5 = 7
4 + 2 = 6
3 + 6 = 9
3 + 3 = 6
4 + 4 = 8
7 + 2 = 9
1 + 8 = 9
6 + 3 = 9
3 + 4 = 7
2 + 5 = 7
5 + 5 = 10

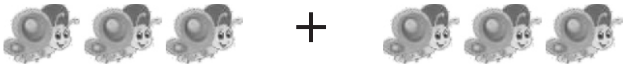
Exercise 5.3

1. Mona has 5 pens. Rakesh gave her 2 more pens.
How many pens does Mona have now?



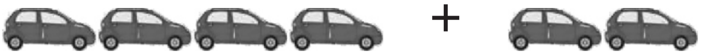
$$\begin{array}{r} 5 \\ +\ 2 \\ \hline 7 \end{array}$$

2. There are 3 butterflies on one leaf and 3 on the other. How many butterflies are there in all on the two leaves?



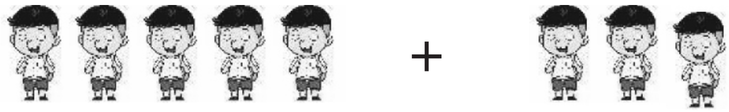
$$\begin{array}{r} 3 \\ +\ 3 \\ \hline 6 \end{array}$$

3. There were 4 cars parked near Ravi's house. 2 more cars came there and parked. How many cars are now there near Ravi's house?



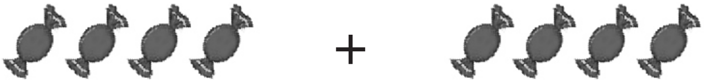
$$\begin{array}{r} 4 \\ +\ 2 \\ \hline 6 \end{array}$$

4. 5 boys were reading in the library. 3 more joined them. How many boys are there now?



$$\begin{array}{r} 5 \\ +\ 3 \\ \hline 8 \end{array}$$

5. Naresh bought 4 toffees for his son and 4 for his daughter. How many toffees did he buy in all?



$$\begin{array}{r} 4 \\ +\ 4 \\ \hline 8 \end{array}$$

Chapter 6 : Subtraction

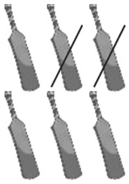
Exercise 6.1

1. How many bats are there in all? 6

How many of them are crossed? 2

How many are left? 4

6 – 2 = 4

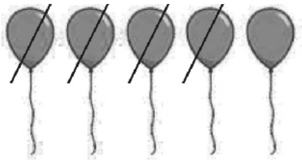


2. How many balloons are there in all? 5

How many of them are crossed? 4

How many are left? 1

5 – 4 = 1

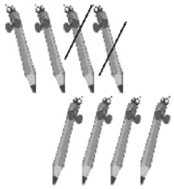


3. How many pencils are there in all? 8

How many of them are crossed? 2

How many are left? 6

8 – 2 = 6

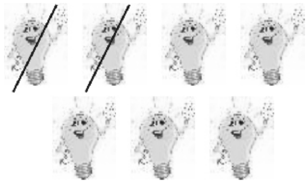


4. How many led are there in all? 7

How many of them are crossed? 2

How many are left? 5

7 – 2 = 5

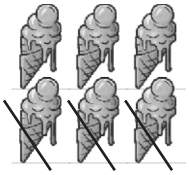


5. How many ice creams are there in all? 6

How many of them are crossed? 3

How many are left? 3

6 – 3 = 3

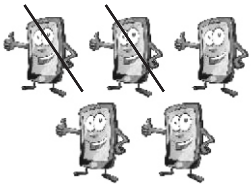


6. How many mobiles are there in all? 5

How many of them are crossed? 2

How many are left? 3

5 – 2 = 3

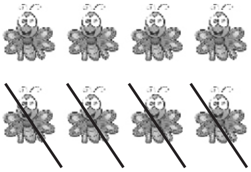


7. How many butterflies are there in all? 8

How many of them are crossed? 4

How many are left? 4

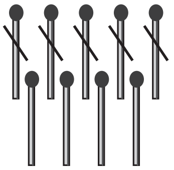
8 – 4 = 4



8. How many matchsticks are there in all? $\boxed{9}$

How many of them are crossed? $\boxed{5}$

How many are left? $\boxed{4}$



$\boxed{9}$ $\boxed{-}$ $\boxed{5}$ $\boxed{=}$ $\boxed{4}$

Exercise 6.2

A. Subtract.

$\begin{array}{r} 8 \\ -\ 6 \\ \hline 2 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}||$

$\begin{array}{r} 6 \\ -\ 4 \\ \hline 2 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}||$

$\begin{array}{r} 8 \\ -\ 5 \\ \hline 3 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}|||$

$\begin{array}{r} 9 \\ -\ 7 \\ \hline 2 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}||$

$\begin{array}{r} 7 \\ -\ 7 \\ \hline 0 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}$

$\begin{array}{r} 5 \\ -\ 3 \\ \hline 2 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}||$

$\begin{array}{r} 8 \\ -\ 4 \\ \hline 4 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}||||$

$\begin{array}{r} 9 \\ -\ 6 \\ \hline 3 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}|||$

$\begin{array}{r} 7 \\ -\ 5 \\ \hline 2 \end{array}$ $\cancel{|}\cancel{|}\cancel{|}\cancel{|}\cancel{|}||$

$\begin{array}{r} 6 \\ -\ 2 \\ \hline 4 \end{array}$ $\cancel{|}\cancel{|}||||$

B. Subtract.

5 – 3 = $\boxed{2}$ 3 – 1 = $\boxed{2}$ 7 – 5 = $\boxed{2}$ 5 – 4 = $\boxed{1}$ 8 – 3 = $\boxed{5}$

6 – 5 = $\boxed{1}$ 9 – 4 = $\boxed{5}$ 8 – 2 = $\boxed{6}$ 8 – 5 = $\boxed{3}$ 4 – 2 = $\boxed{2}$

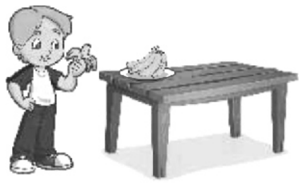
5 – 2 = $\boxed{3}$ 9 – 5 = $\boxed{4}$ 9 – 2 = $\boxed{7}$ 6 – 2 = $\boxed{4}$ 7 – 7 = $\boxed{0}$

6 – 1 = $\boxed{5}$ 9 – 3 = $\boxed{6}$ 5 – 1 = $\boxed{4}$ 7 – 3 = $\boxed{4}$ 8 – 6 = $\boxed{2}$

5 – 5 = $\boxed{0}$ 9 – 8 = $\boxed{1}$ 4 – 4 = $\boxed{0}$

Exercise 6.3

1. Gayatri bought 8 bananas. Her brother eats 3 of them. How many bananas are left with Gayatri?

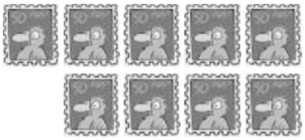


$\begin{array}{r} 8 \\ -\ 3 \\ \hline 5 \end{array}$

2. 9 students went on a picnic. 6 of them were girls. How many boys went on the picnic?

$$\begin{array}{r} 9 \\ -\ 6 \\ \hline 3 \\ \hline \end{array}$$

3. Sonam had 9 stamps. She lost 3 of them. How many stamps are left with her?



$$\begin{array}{r} 9 \\ -\ 3 \\ \hline 6 \\ \hline \end{array}$$

4. Kamla bought 7 eggs. One of them was broken. How many eggs are left?

$$\begin{array}{r} 7 \\ -\ 1 \\ \hline 6 \\ \hline \end{array}$$

5. There were 7 birds on the branch of a tree, 3 of them flew away.
How many birds are left on the branch?

$$\begin{array}{r} 7 \\ -\ 3 \\ \hline 4 \\ \hline \end{array}$$

6. There are 8 inland letters. 6 of these have stamps. How many inland letters are without stamps?

$$\begin{array}{r} 8 \\ -\ 6 \\ \hline 2 \\ \hline \end{array}$$

7. There were 8 flowers on a plant. 5 of them plucked by Rohan.
How many flowers are still there on the plant?

$$\begin{array}{r} 8 \\ -\ 5 \\ \hline 3 \\ \hline \end{array}$$

Chapter 7 : Numbers from 11 to 20

Exercise 7.1

Write the numbers.

Eleven	11	11	11	11	11
Twelve	12	12	12	12	12
Thirteen	13	13	13	13	13
Fourteen	14	14	14	14	14

Fifteen	15	15	15	15	15
Sixteen	16	16	16	16	16
Seventeen	17	17	17	17	17
Eighteen	18	18	18	18	18
Nineteen	19	19	19	19	19
Twenty	20	20	20	20	20

Exercise 7.2

Write the numbers.

Thirteen	13
Fourteen	14
Sixteen	16
Eleven	11
Eighteen	18
Twenty	20
Seventeen	17
Fifteen	15
Nineteen	19
Twelve	12

Write the number names.

16	Sixteen
12	Twelve
14	Fourteen
17	Seventeen
15	Fifteen
19	Nineteen
20	Twenty
11	Eleven
18	Eighteen
13	Thirteen

Exercise 7.3

Add the following.

7 + 7 = 14
5 + 9 = 14
8 + 5 = 13
5 + 2 = 7
7 + 3 = 10
4 + 8 = 12
7 + 8 = 15
8 + 8 = 16
4 + 5 = 9
8 + 9 = 17
9 + 1 = 10
9 + 9 = 18

Exercise 7.4

Add the following.

4 + 7 = 11
7 + 6 = 13
8 + 7 = 15
9 + 6 = 15
4 + 9 = 13
5 + 6 = 11
9 + 7 = 16
5 + 9 = 14

Exercise 7.5

Subtract the following.

18 – 9 = 9
14 – 6 = 8
15 – 8 = 7
16 – 9 = 7
13 – 6 = 7
15 – 7 = 8
12 – 8 = 4
13 – 5 = 8

Exercise 7.6

Subtract by backward counting.

11 – 8 = 3
12 – 5 = 7
13 – 6 = 7
16 – 8 = 8
15 – 7 = 8
17 – 9 = 8
14 – 6 = 8
13 – 9 = 4
14 – 9 = 5
11 – 5 = 6

Chapter 8 : Calendar

Exercise 8.1

A. Answer the following questions.

1. Which is the sixth day of the week?	Saturday
2. Which is the second day of the week?	Tuesday
3. Which day comes before Thursday?	Wednesday
4. Which day comes after Tuesday?	Wednesday
5. Which day lies between Friday and Sunday?	Saturday
6. Which day lies between Tuesday and Thursday?	Wednesday
7. Which day comes after Sunday?	Monday

B. Fill in the blanks.

1. There are **seven** day in a week.
2. **Monday** is the first day of the week.
3. Wednesday is the **third** day of the week.
4. Fifth day of the week is **Friday**.

5. Sunday is the **last** day of the week.
6. Saturday comes before **Sunday**.
7. Friday comes before **Saturday**.
8. Monday lies between **Sunday** and **Tuesday**.
9. Thursday lies between **Wednesday** and **Friday**.
10. Saturday is the **sixth** day of the week.

Exercise 8.2

Answer the following questions.

1. How many months are there in a year?	12
2. Which is the first month of the year?	January
3. Which month comes before February?	January
4. Which month comes before March?	February
5. Which month comes after May?	June
6. Which month comes before June?	May
7. Which month comes after October?	November
8. Which month comes after August?	September
9. Which month lies between August and October?	September
10. Which month comes between July and September?	August
11. Which is the sixth month of the year?	June
12. Which is the eleventh month of the year?	November
13. Which is the last month of the year?	December
14. How many days are there in a year?	365

Chapter 9 : Numbers from 21 to 50

Exercise 9.1

A. Write the missing numbers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

B. Counting numbers are written in reverse order. Write the missing numbers.

50	49	48	47	46	45	44	43	42	41
40	39	38	37	36	35	34	33	32	31
30	29	28	27	26	25	24	23	22	21
20	19	18	17	16	15	14	13	12	11
10	9	8	7	6	5	4	3	2	1

Exercise 9.2

Write the numbers.

Eighteen	18	40	Forty
Forty-seven	47	28	Twenty-eight
Thirty-five	35	36	Thirty-six
Thirty-four	34	14	Fourteen
Thirty	30	50	Fifty
Thirty-three	33	22	Twenty-two
Nineteen	19	49	Forty-nine
Twenty-nine	29	17	Seventeen
Forty-one	41	37	Thirty-seven
Twelve	12	21	Twenty-one

Exercise 9.3

Write the numbers names.

Forty-seven	47	28	Twenty-eight
Forty-nine	49	14	Fourteen
Thirty-five	35	30	Thirty
Twenty-six	26	31	Thirty-one
Forty	40	19	Nineteen
Seventeen	17	36	Thirty-six

Twenty-nine	29	48	Forty-eight
Twenty-three	23	45	Forty-five
Thirty-six	36	39	Thirty-nine
Eighteen	18	50	Fifty
Twenty-four	24	41	Forty-one

Exercise 9.4

Write the correct numbers in the placeholder.

66 is just after 65

48 is just before 49

44 is just after 43

97 is just before 98

99 is just before 100

95 is just before 96

66 is in between 65 and 67

83 is in between 82 and 84

72 is in between 71 and 73

58 is in between 57 and 59

29 is just after 28

95 is just after 94

37 is just after 36

59 is just before 60

94 is just after 93

19 is in between 18 and 20

11 is just after 10

66 is in between 65 and 67

97 is just after 96

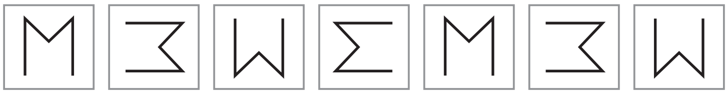
29 is just after 28

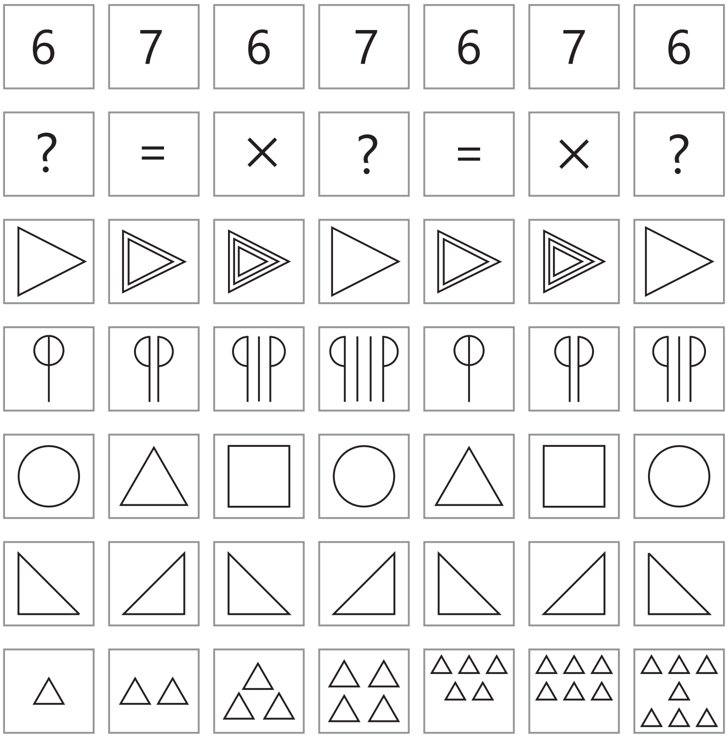
Chapter 10 : Patterns

Exercise 10.1

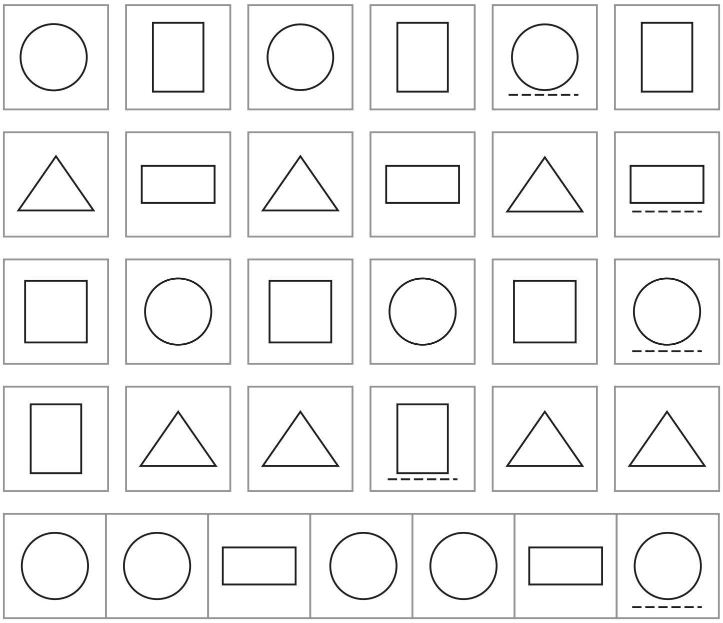
A. Complete each of the following patterns.

A	B	A	B	A	B	A

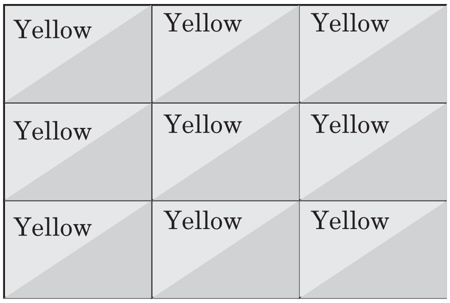




B. Complete the following pattern.

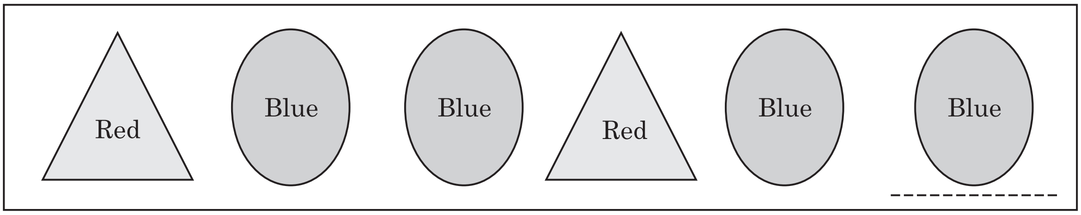


C. Fill in the yellow colour in the blanks and observe the pattern.



Yellow	Yellow	Yellow
Yellow	Yellow	Yellow
Yellow	Yellow	Yellow

D. Complete the pattern and colour it.



Chapter 11 : Numbers from 51 to 100

Exercise 11.1

Fill in the blanks.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Exercise 11.2

Fill in the missing numbers in the placeholders.

14	15	16	17	18	19	20	21	22	23
25	26	27	28	29	30	31	32	33	34
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
50	51	52	53	54	55	56	57	58	59
63	64	65	66	67	68	69	70	71	72
76	77	78	79	80	81	82	83	84	85
91	92	93	94	95	96	97	98	99	100

Exercise 11.3

A. Write the numbers.

Fifty-three	53	Sixty-seven	67	Seventy	70	Seventy-eight	78
Seventy-five	75	Ninety-two	92	Sixty-one	61	Seventy-three	73
Sixty-five	65	Ninety-seven	97	Ninety-nine	99	Ninety-four	94
Hundred	100	Fifty-five	55	Eighty-two	82	Ninety	90
Fifty-eight	58	Eighty-five	85	Forty-eight	48	Eighty-nine	89

B. Write the number names for the following numbers.

74	Seventy-four	93	Ninety-three	82	Eighty-two	57	Fifty-seven
47	Forty-seven	49	Forty-nine	67	Sixty-seven	31	Thirty-one
54	Fifty-four	68	Sixty-eight	86	Eighty-six	96	Ninety-six
73	Seventy-three	80	Eighty	98	Ninety-eight	14	Fourteen
39	Thirty-nine	31	Thirty-one	71	Seventy-one	100	One hundred

Exercise 11.4

A. Write the number which comes :

Just Before					
57	58	74	75	58	59
80	81	97	98	23	24
44	45	65	66	92	93
19	20				

Just After					
12	13	47	48	48	49
62	63	84	85	97	98
70	71	26	27	29	30
99	100				

B. Write the number which comes in between the given numbers :

19	20	21
23	24	25
29	30	31
84	85	86
92	93	94

7	8	9
68	69	70
17	18	19
45	46	47
37	38	39

30	31	32
95	96	97
11	12	13
62	63	64
54	55	56

57	58	59
73	74	75
28	29	30
86	87	88
98	99	100

Chapter 12 : Skip Counting

Exercise 12.1

A. Continue the pattern by counting in 2s.

1	3	5	7	9	11	13	15
15	17	19	21	23	25	27	29
12	14	16	18	20	22	24	26
44	46	48	50	52	54	56	58
63	65	67	69	71	73	75	77

B. Continue the pattern by counting in 3s.

3	6	9	12	15	18	21	24
5	8	11	14	17	20	23	26
17	20	23	26	29	32	35	38
21	24	27	30	33	36	39	42

C. Continue the pattern by counting in 5s.

10	15	20	25	30	35	40	45
12	17	22	27	32	37	42	47
23	28	33	38	43	48	53	58

D. Continue the pattern by counting in 10s.

10	20	30	40	50	60	70	80
15	25	35	45	55	65	75	85

Chapter 13 : Comparison of Numbers

Exercise 13.1

Look at the number-grid and put the correct symbol > or < in the placeholder.

9 < 29
69 > 60
42 < 50
26 < 46
47 > 13
31 < 98

32 < 36
11 < 18
94 > 75
15 < 55
31 < 98
24 < 73

77 > 73
86 > 33
19 > 11
58 < 90
70 > 29

36 < 57
54 > 14
67 > 57
85 > 81
67 < 77

Exercise 13.2

Put the correct symbol >, < or = in the placeholder.

5 < 12
17 < 20
13 > 10
15 < 17
12 = 12
28 > 23
18 < 32
51 > 28
45 < 59
78 > 72
37 < 73

9 < 17
16 > 14
10 < 20
16 = 16
12 < 17
15 < 18
29 < 41
42 > 31
67 = 67
91 > 79
54 > 45

13 = 13
28 > 7
39 > 18
48 > 15
54 > 41
26 = 26
92 > 29
55 = 55
36 < 46
79 < 97
89 < 96

Chapter 14 : Order of Numbers

Exercise 14.1

Arrange the given numbers in ascending order.

27 21 23 26 → 21 23 26 27

35 29 86 53 → 29 35 53 86

54 63 45 36 → 36 45 54 63

66 62 60 68 → 60 62 66 68

67 39 91 73 → 39 67 73 91

76 56 67 65 → 56 65 67 76

77 17 7 70 → 7 17 70 77

81 80 18 88 → 18 80 81 88

83 63 33 13 → 13 33 63 83

90 9 99 19 → 9 19 90 99

Exercise 14.2

Arrange the given numbers in descending order.

31 33 13 30 → 33 31 30 13

36 54 63 45 → 63 54 45 36

47 68 73 65 → 73 68 65 47

55 15 50 51 → 55 51 50 15

58 34 19 75 → 75 58 34 19

59 80 95 88 → 95 88 80 59

61 15 26 72 → 72 61 26 15

66 46 77 67 → 77 67 66 46

65 96 99 69 → 99 96 69 65

73 77 79 70 → 79 77 73 70

Chapter 15 : Addition of 2-Digit Numbers

Exercise 15.1

Add the following numbers.

4 5 = 4 ten and 5 ones
+ 2 3 = 2 tens and 3 ones
6 8 6 tens and 8 ones = 68

2 6 = 2 ten and 6 ones
+ 5 3 = 5 tens and 3 ones
7 9 7 tens and 9 ones = 79

3 2 = 3 ten and 2 ones
+ 5 7 = 5 tens and 7 ones
8 9 8 tens and 9 ones = 89

9 1 = 9 ten and 1 ones
+ 7 = 0 tens and 7 ones
9 8 9 tens and 8 ones = 98

4 2 = 4 ten and 2 ones
+ 5 4 = 5 tens and 4 ones
9 6 9 tens and 6 ones = 96

4 5 = 4 ten and 5 ones
+ 5 3 = 5 tens and 3 ones
9 8 9 tens and 8 ones = 98

5 6 = 5 ten and 6 ones
+ 4 2 = 4 tens and 2 ones
9 8 9 tens and 8 ones = 98

6 1 = 6 ten and 1 ones
+ 3 7 = 3 tens and 7 ones
9 8 9 tens and 8 ones = 98

Exercise 15.2

Find the sums.

$$\begin{array}{cc} T & O \\ 2 & 4 \\ +3 & 5 \\ \hline 5 & 9 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 2 & 6 \\ +7 & 3 \\ \hline 9 & 9 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 3 & 3 \\ +4 & 5 \\ \hline 7 & 8 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 3 & 2 \\ +6 & 5 \\ \hline 9 & 7 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 4 & 3 \\ +3 & 4 \\ \hline 7 & 7 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 4 & 2 \\ +2 & 5 \\ \hline 6 & 7 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 4 & 8 \\ +5 & 0 \\ \hline 9 & 8 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 4 & 0 \\ +3 & 6 \\ \hline 7 & 6 \\ \hline \end{array}$$

$$\begin{array}{cc} T & O \\ 4 & 5 \\ +3 & 3 \\ \hline 7 & 8 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 5 & 8 \\ +2 & 1 \\ \hline 7 & 9 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 6 & 8 \\ +2 & 0 \\ \hline 8 & 8 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 7 & 0 \\ +2 & 5 \\ \hline 9 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 7 & 3 \\ +1 & 4 \\ \hline 8 & 7 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 2 & 7 \\ +5 & 1 \\ \hline 7 & 8 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ 5 & 6 \\ +2 & 2 \\ \hline 7 & 8 \\ \hline \end{array}$$

Exercise 15.3

Add.

$$\begin{array}{cc} T & O \\ \boxed{1} & \\ 2 & 8 \\ +3 & 9 \\ \hline 6 & 7 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 1 & 9 \\ +3 & 6 \\ \hline 5 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 2 & 6 \\ +2 & 9 \\ \hline 5 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 1 & 8 \\ +1 & 7 \\ \hline 3 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 2 & 5 \\ +2 & 7 \\ \hline 5 & 2 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 4 & 9 \\ + & 8 \\ \hline 5 & 7 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 5 & 8 \\ +3 & 6 \\ \hline 9 & 4 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 3 & 5 \\ +4 & 7 \\ \hline 8 & 2 \\ \hline \end{array}$$

$$\begin{array}{cc} T & O \\ \boxed{1} & \\ 3 & 4 \\ +5 & 9 \\ \hline 9 & 3 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 4 & 5 \\ +3 & 8 \\ \hline 8 & 3 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 2 & 8 \\ +5 & 6 \\ \hline 8 & 4 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 4 & 7 \\ +3 & 8 \\ \hline 8 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 2 & 8 \\ +4 & 7 \\ \hline 7 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 4 & 6 \\ +3 & 9 \\ \hline 8 & 5 \\ \hline \end{array} \quad \begin{array}{cc} T & O \\ \boxed{1} & \\ 5 & 2 \\ +1 & 8 \\ \hline 7 & 0 \\ \hline \end{array}$$

Exercise 15.4

1. Ravi had 42 chocolates. His father gave him 24 more chocolates. How many chocolates does Ravi have now.

$$\boxed{\begin{array}{r} 4\,2 \\ +\;2\,4 \\ \hline 6\,6 \\ \hline \end{array}}$$

2. There are 40 crows and 6 sparrows on a tree. How many birds are there on the tree?

$$\boxed{\begin{array}{r} 4\,0 \\ +\quad 6 \\ \hline 4\,6 \\ \hline \end{array}}$$

3. In a class, there are 43 boys and 24 girls. How many students are there in the class?

$$\boxed{\begin{array}{r} 4\,3 \\ +\;2\,4 \\ \hline 6\,7 \\ \hline \end{array}}$$

4. Father bought 26 shirts for Monu and 18 frocks for Teena. How many clothes did father buy altogether?

$$\boxed{\begin{array}{r} ① \;\; \\ 2\,6 \\ +\;1\,8 \\ \hline 4\,4 \\ \hline \end{array}}$$

5. Monica collected 82 flowers and Radha collected 48 flowers from a garden. How many flowers did they collect all together?

$$\boxed{\begin{array}{r} \textcircled{1} \\ 8\ 2 \\ +\ 4\ 8 \\ \hline 1\ 3\ 0 \\ \hline \end{array}}$$

6. There are 49 buses and 58 cars moving on a road. How many vehicles are there on the road?

$$\boxed{\begin{array}{r} \textcircled{1} \\ 4\ 9 \\ +\ 5\ 8 \\ \hline 1\ 0\ 7 \\ \hline \end{array}}$$

Chapter 16 : Subtraction of 2-Digit Numbers

Exercise 16.1

Subtract.

$$\begin{array}{rcl} 6\ 4 &=& 6 \text{ tens and } 4 \text{ ones} \\ -\ 5\ 1 &=& 5 \text{ tens and } 1 \text{ ones} \\ \hline 1\ 3 && 1 \text{ tens and } 3 \text{ ones} = \boxed{13} \\ \hline \end{array} \qquad \begin{array}{rcl} 4\ 6 &=& 4 \text{ tens and } 6 \text{ ones} \\ -\ 2\ 2 &=& 2 \text{ tens and } 2 \text{ ones} \\ \hline 2\ 4 && 2 \text{ tens and } 4 \text{ ones} = \boxed{24} \\ \hline \end{array}$$

$$\begin{array}{rcl} 7\ 8 &=& 7 \text{ tens and } 8 \text{ ones} \\ -\ 3\ 4 &=& 3 \text{ tens and } 4 \text{ ones} \\ \hline 4\ 4 && 4 \text{ tens and } 4 \text{ ones} = \boxed{44} \\ \hline \end{array} \qquad \begin{array}{rcl} 9\ 3 &=& 9 \text{ tens and } 3 \text{ ones} \\ -\ 5\ 0 &=& 5 \text{ tens and } 0 \text{ ones} \\ \hline 4\ 3 && 4 \text{ tens and } 3 \text{ ones} = \boxed{43} \\ \hline \end{array}$$

$$\begin{array}{rcl} 8\ 7 &=& 8 \text{ tens and } 7 \text{ ones} \\ -\ 4\ 3 &=& 4 \text{ tens and } 3 \text{ ones} \\ \hline 4\ 4 && 4 \text{ tens and } 4 \text{ ones} = \boxed{44} \\ \hline \end{array} \qquad \begin{array}{rcl} 8\ 4 &=& 8 \text{ ten and } 4 \text{ ones} \\ -\ 5\ 4 &=& 5 \text{ tens and } 4 \text{ ones} \\ \hline 3\ 0 && 3 \text{ tens and } 0 \text{ ones} = \boxed{30} \\ \hline \end{array}$$

$$\begin{array}{rcl} 6\ 6 &=& 6 \text{ ten and } 6 \text{ ones} \\ -\ 2\ 3 &=& 2 \text{ tens and } 3 \text{ ones} \\ \hline 4\ 3 && 4 \text{ tens and } 3 \text{ ones} = \boxed{43} \\ \hline \end{array}$$

Exercise 16.2

Subtract :

$$\begin{array}{rr} \text{T} & \text{O} \\ 7 & 6 \\ -\ 5 & 3 \\ \hline 2 & 3 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 9 & 0 \\ -\ 4 & 0 \\ \hline 5 & 0 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 6 & 9 \\ -\ 3 & 5 \\ \hline 3 & 4 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 8 & 6 \\ -\ 5 & 3 \\ \hline 3 & 3 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 5 & 8 \\ -\ 3 & 2 \\ \hline 2 & 6 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 9 & 4 \\ -\ 7 & 4 \\ \hline 2 & 0 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 6 & 8 \\ -\ 2 & 3 \\ \hline 4 & 5 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 8 & 9 \\ -\ 5 & 4 \\ \hline 3 & 5 \\ \hline \end{array}$$

$$\begin{array}{rr} \text{T} & \text{O} \\ 7 & 5 \\ -\ 2 & 0 \\ \hline 5 & 5 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 6 & 5 \\ -\ 2 & 3 \\ \hline 4 & 2 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 6 & 7 \\ -\ 5 & 3 \\ \hline 1 & 4 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 9 & 7 \\ -\ 5 & 6 \\ \hline 4 & 1 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 4 & 5 \\ -\ 3 & 1 \\ \hline 1 & 4 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 6 & 4 \\ -\ 6 & 1 \\ \hline 0 & 3 \\ \hline \end{array} \quad \begin{array}{rr} \text{T} & \text{O} \\ 8 & 3 \\ -\ 6 & 0 \\ \hline 2 & 3 \\ \hline \end{array}$$

Exercise 16.3

Subtract :

$$\begin{array}{rcc} & T & O \\ & \bigcirc & \bigcirc \\ & 4 & 2 \\ - & 2 & 0 \\ \hline & 2 & 2 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{6} & \textcircled{14} \\ & 7 & 4 \\ - & 3 & 5 \\ \hline & 3 & 9 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{7} & \textcircled{11} \\ & 8 & 1 \\ - & 4 & 9 \\ \hline & 3 & 2 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \bigcirc & \bigcirc \\ & 6 & 3 \\ - & 2 & 0 \\ \hline & 4 & 3 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{4} & \textcircled{10} \\ & 5 & 0 \\ - & 4 & 8 \\ \hline & 0 & 2 \\ \hline \end{array}$$

$$\begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{10} \\ & 9 & 0 \\ - & 8 & 8 \\ \hline & 0 & 2 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{7} & \textcircled{14} \\ & 8 & 4 \\ - & 4 & 6 \\ \hline & 3 & 8 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{4} & \textcircled{10} \\ & 5 & 0 \\ - & 2 & 8 \\ \hline & 2 & 2 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{3} & \textcircled{10} \\ & 4 & 0 \\ - & 2 & 9 \\ \hline & 1 & 1 \\ \hline \end{array} \qquad \begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{13} \\ & 9 & 3 \\ - & 4 & 6 \\ \hline & 4 & 7 \\ \hline \end{array}$$

Exercise 16.4

Word Problems on Subtraction

1. There are 48 books in the shelf. Rajesh took out 23 books to read. How many books are left in the shelf?

$$\begin{array}{rcc} & 4 & 8 \\ - & 2 & 3 \\ \hline & 2 & 5 \\ \hline \end{array}$$

2. There are 67 children in our class. 16 children were absent on Saturday. How many children were present on Saturday?

$$\begin{array}{rcc} & 6 & 7 \\ - & 1 & 6 \\ \hline & 5 & 1 \\ \hline \end{array}$$

3. There are 38 apples in the basket. 12 apples are rotten. How many apples are left fresh in the basket?

$$\begin{array}{rcc} & 3 & 8 \\ - & 1 & 2 \\ \hline & 2 & 6 \\ \hline \end{array}$$

4. Puneet has 28 pens. Out of these only 22 pens are working. How many pens are not working?

$$\begin{array}{rcc} & 2 & 8 \\ - & 2 & 2 \\ \hline & 0 & 6 \\ \hline \end{array}$$

5. There are 98 children in camp. If 76 are boys, how many girls are there in the camp?

$$\begin{array}{rcc} & 9 & 8 \\ - & 7 & 6 \\ \hline & 2 & 2 \\ \hline \end{array}$$

Chapter 17 : Multiplication

Exercise 17.1

Write the multiplication fact for each of the following.

2 + 2 + 2 = 6	2 × 3 = 6
3 + 3 = 6	3 × 2 = 6
3 + 3 + 3 + 3 = 12	3 × 4 = 12
2 + 2 + 2 + 2 + 2 = 10	2 × 5 = 10
4 + 4 + 4 + 4 = 16	4 × 4 = 16
3 + 3 + 3 + 3 + 3 = 15	3 × 5 = 15
5 + 5 + 5 + 5 = 20	5 × 4 = 20
4 + 4 + 4 + 4 + 4 + 4 = 24	4 × 6 = 24
5 + 5 + 5 + 5 + 5 + 5 = 30	5 × 6 = 30
2 + 2 + 2 + 2 + 2 + 2 + 2 = 14	2 × 7 = 14
2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18	2 × 9 = 18
5 + 5 + 5 + 5 + 5 + 5 + 5 = 35	5 × 7 = 35

Exercise 17.2

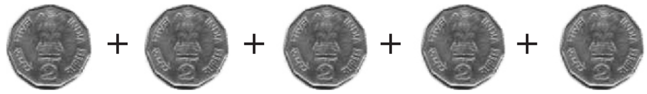
Fill in the circle with the correct number.

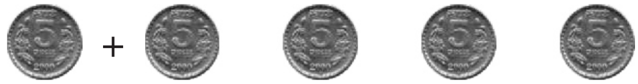
2 × 3 = 6
3 × 4 = 12
4 × 5 = 20
4 × 6 = 24
4 × 3 = 12
2 × 8 = 16
2 × 5 = 10
8 × 5 = 40
5 × 5 = 25
4 × 7 = 28
2 × 7 = 14
2 × 9 = 18
3 × 10 = 30
4 × 9 = 36
4 × 6 = 24
5 × 3 = 15
5 × 2 = 10
2 × 10 = 20
5 × 10 = 50
4 × 10 = 40
4 × 8 = 32
5 × 7 = 35

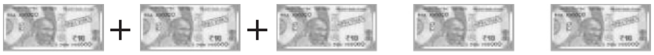
Chapter 18 : Money

Exercise 18.1

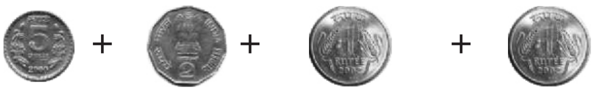
1. Write the value of the following combinations of coins. You can often use skip counting when you need to count money.

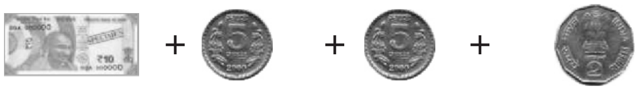
(a)

2 → 4 → 6 → 8 → 10 → ₹ 10

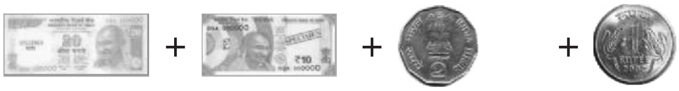
(b)

5 → 10 → 15 → 20 → 25 → ₹ 25

(c)

10 → 20 → 30 → 40 → 50 → ₹ 50

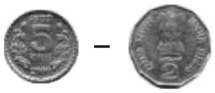
2. When you have different amounts, start with the biggest amount first.

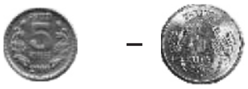
(a)

5 → 7 → 8 → 9 → ₹ 9

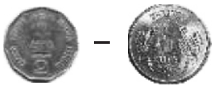
(b)

10 → 15 → 20 → 22 → ₹ 22

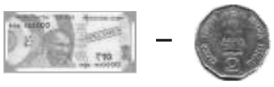
(c)

20 → 30 → 32 → 33 → ₹ 33

3. Fill in the blanks :

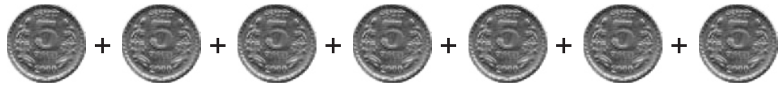
(a)

= ₹ 3

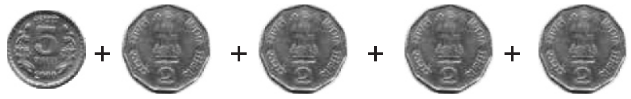
(b)

= ₹ 4

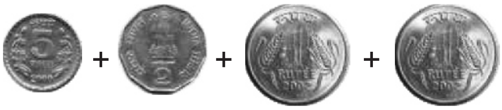
(c)

= ₹ 1

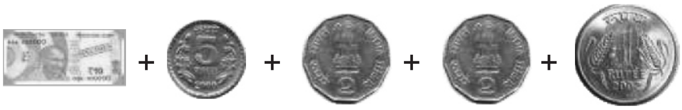
(d)

= ₹ 8

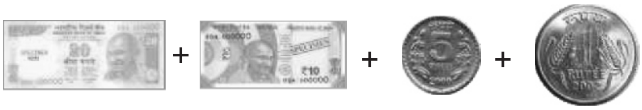
4. Count how much money :

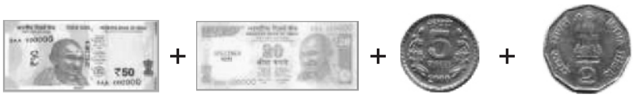
(a)

= ₹ 35

(b)

= ₹ 13

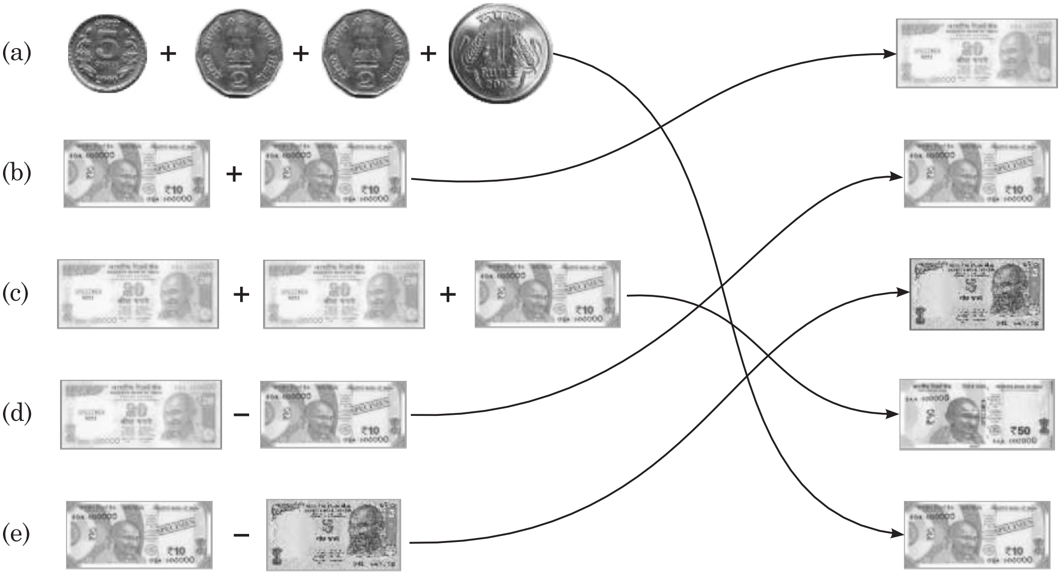
(c)  = ₹ 9

(d)  = ₹ 20

(e)  = ₹ 36

(f)  = ₹ 77

5. Match :



Exercise 18.2

1. Krishan bought a chocolate ₹ 15 and a cold drink for ₹ 10. How many rupees did Krishan spend?

$$\begin{array}{r} ₹\ 1\ 5 \\ +\ ₹\ 1\ 0 \\ \hline ₹\ 2\ 5 \\ \hline \end{array}$$

2. Anil's grandfather gave him ₹ 50. He bought sharpner for ₹ 5. How much money is left with him?

$$\begin{array}{r} ④⑩ \\ ₹\ 5\ 0 \\ -\ ₹\ \ \ 5 \\ \hline ₹\ 4\ 5 \\ \hline \end{array}$$

3. Kavita found a 50 rupees on the road. She gave 20 rupees to a beggar. How much money is left with Kavita?

$$\begin{array}{r} ₹\ 5\ 0 \\ -\ ₹\ 2\ 0 \\ \hline ₹\ 3\ 0 \\ \hline \end{array}$$

4. Rajeev got 10 rupees from his mother and 80 rupees from his sister. How much money does Rajeev have?

₹ 1 0
+ ₹ 8 0
₹ 9 0

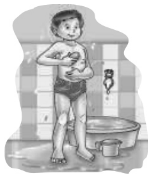
5. Charu had 65 rupees. She gave 30 rupees to her brother. How much money is left with Charu?

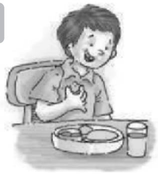
₹ 6 5
– ₹ 3 0
₹ 3 5

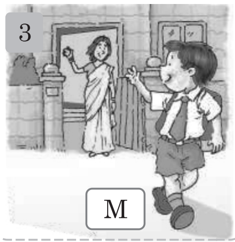
Chapter 19 : Time

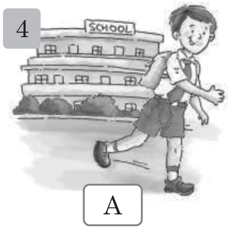
Exercise 19.1

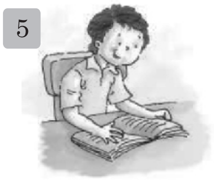
A. Look at the pictures and write the part of the day for the activity shown below. Write 'M' for 'morning', 'A' for 'afternoon', 'E' for 'evening' and 'N' for 'night'.

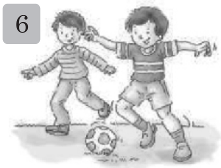
1

M

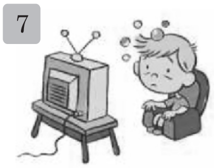
2

M

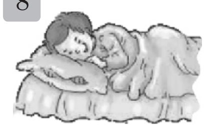
3

M

4

A

5

E

6

E

7

N

8

N

B. List some of your daily activities according to the parts of the day in the given chart.

Morning

Afternoon

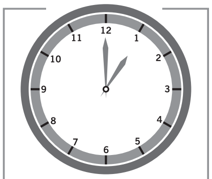
Evening

Night

(Do with the help of your teacher.)

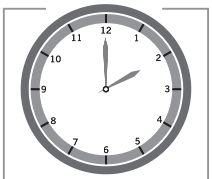
Exercise 19.2

Write the time shown by each of the following clocks.



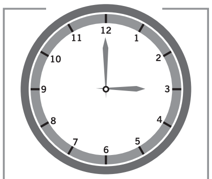
1 o' clock

1 : 00



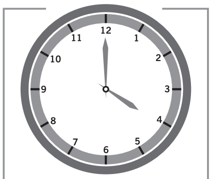
2 o' clock

2 : 00



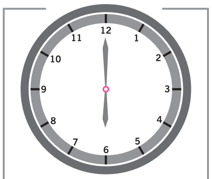
3 o' clock

3 : 00



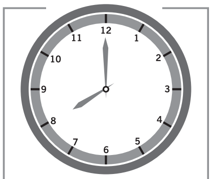
4 o' clock

4 : 00



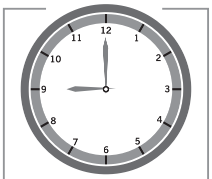
6 o' clock

6 : 00



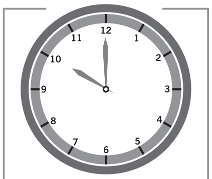
8 o' clock

8 : 00



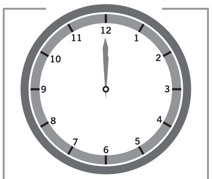
9 o' clock

9 : 00



10 o' clock

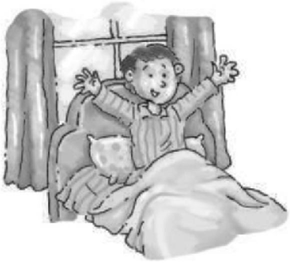
10 : 00

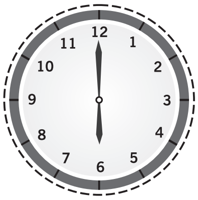


12 o' clock

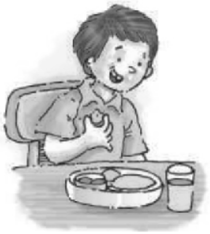
12 : 00

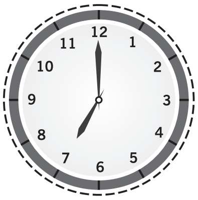
Exercise 19.3



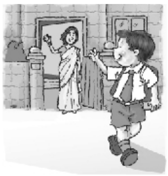


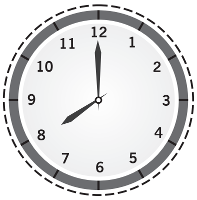
I get up at 6 o'clock in the morning.



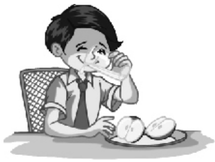


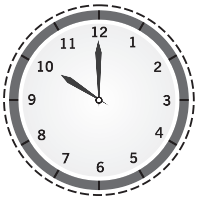
I take my breakfast at 7 o'clock in the morning.



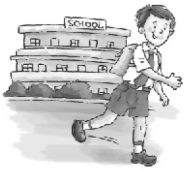


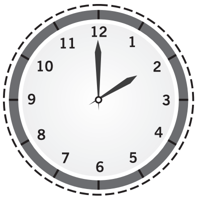
I go to school at 8 o'clock in the morning.





It's break time in school at 10 o'clock.

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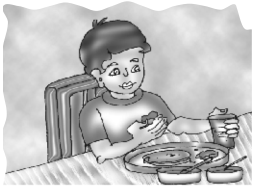
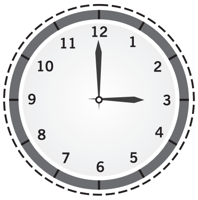
I come back home from school at 2 o'clock afternoon.

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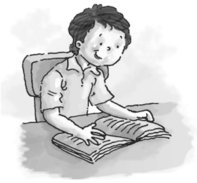
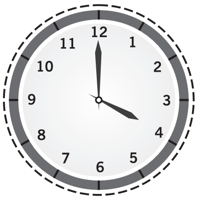
I take lunch at 3 o'clock afternoon.

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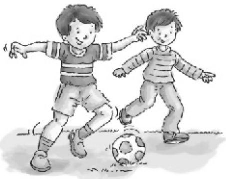
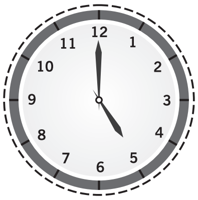
I do my home work up to 4 o'clock.

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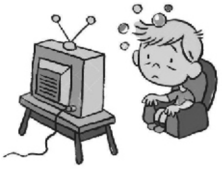
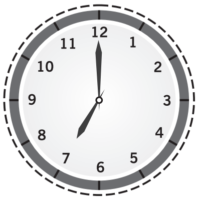
I go to play at 5 o'clock.

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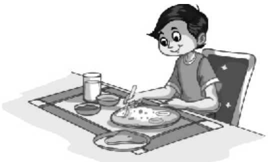
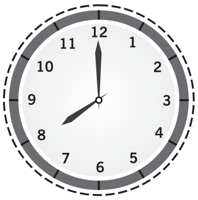
I watch T.V. at 7 o'clock in the evening.

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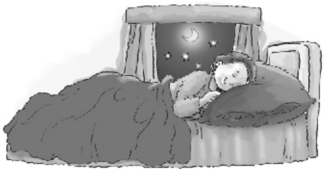
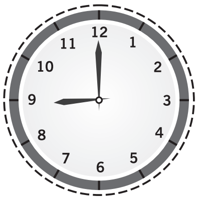
I take my dinner at 8 o'clock.



I go to bed at 9 o'clock.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Class 2

Chapter-1: Rolling and Sliding

Exercise 1.1

Q.1. Identify ball, box and drum shaped objects through their outer surface. Give any three examples for each of the following:

(a)

Name the objects that are shaped like a ball.

Football, Laddu, Tomato etc.

(b)

Name the objects that are shaped as a box.

Book, Almirah, Brick etc.

(c)

Name the objects that are shaped as a drum.

Battle, Glass, Tambour etc.

Q.2. Make a circle on the correct options :

(a) Looks like a drum

Matchbox	[✓ Bottle]	Watermelon	[✓ Glass]	[✓ Tambour]

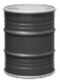
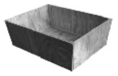
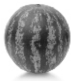
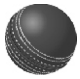
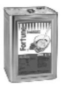
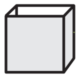
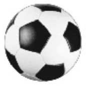
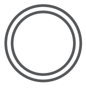
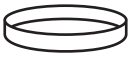
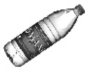
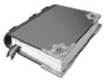
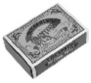
(b) Looks like a box

Tomato	[✓ Book]	[✓ Almirah]	Flute	[✓ Brick]

(c) Looks like a ball

[✓ Football]	Pencil	Marble	[✓ Laddu]	[✓ Lemon]

Q.3. Look at the figures given below :

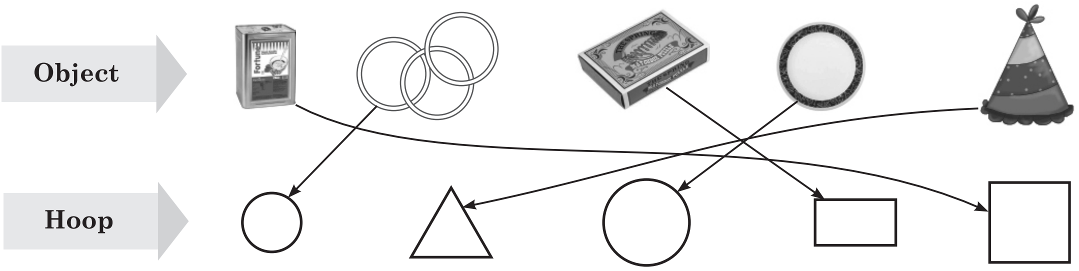













From the above figures, write down the name of the objects that roll and objects that slide on the table:

Rolling Objects	Sliding Objects
Drum	Book
Watermelon	Matchbox
Ball	Cube
Football	Fortune container
Ring	Box
Bracelet, Bottle	

Q.4. Match the objects after identification :

Sol.



Q.5. Objects having hoops just like that of match box ▭ and that of ○ glass, put (✔) against the hoop formed in table.

Sol.

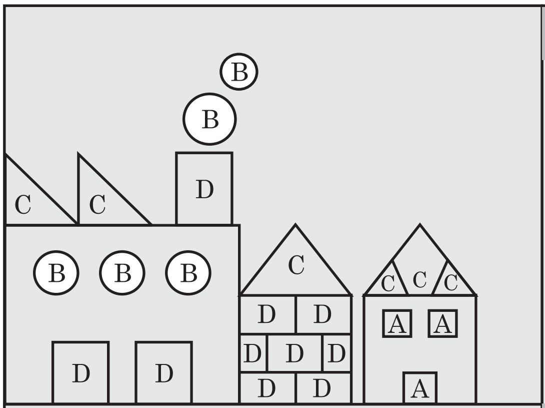
Objects	○	▭
Coin	✔	
Drum	✔	
Book		✔
Copy		✔
Bangle	✔	
Mobile		✔
Cooler		✔
Plate	✔	
Computer Screen		✔

Exercise 2.1

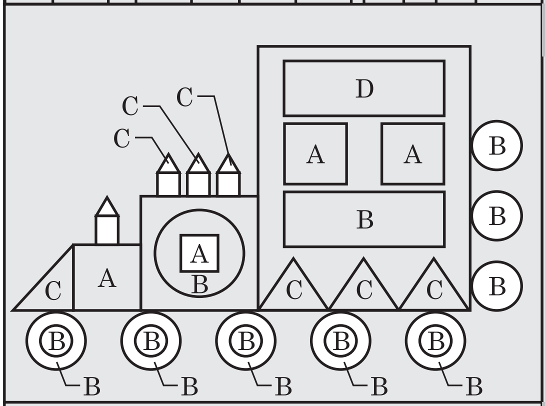
Count and colour the shapes.

Sol.

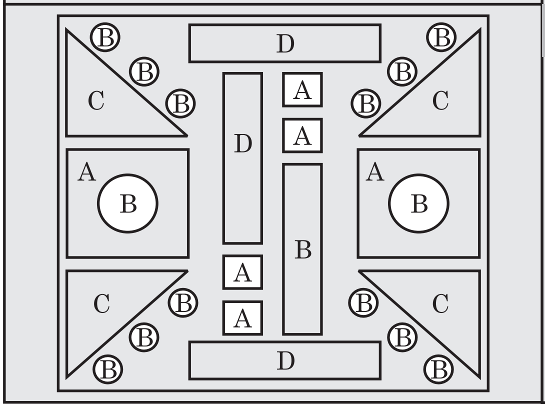
A Pink B Blue C Green D Orange



How many?	
Circles	5
Squares	3
Rectangles	10
Triangles	6



How many?	
Circles	14
Squares	4
Rectangles	2
Triangles	8



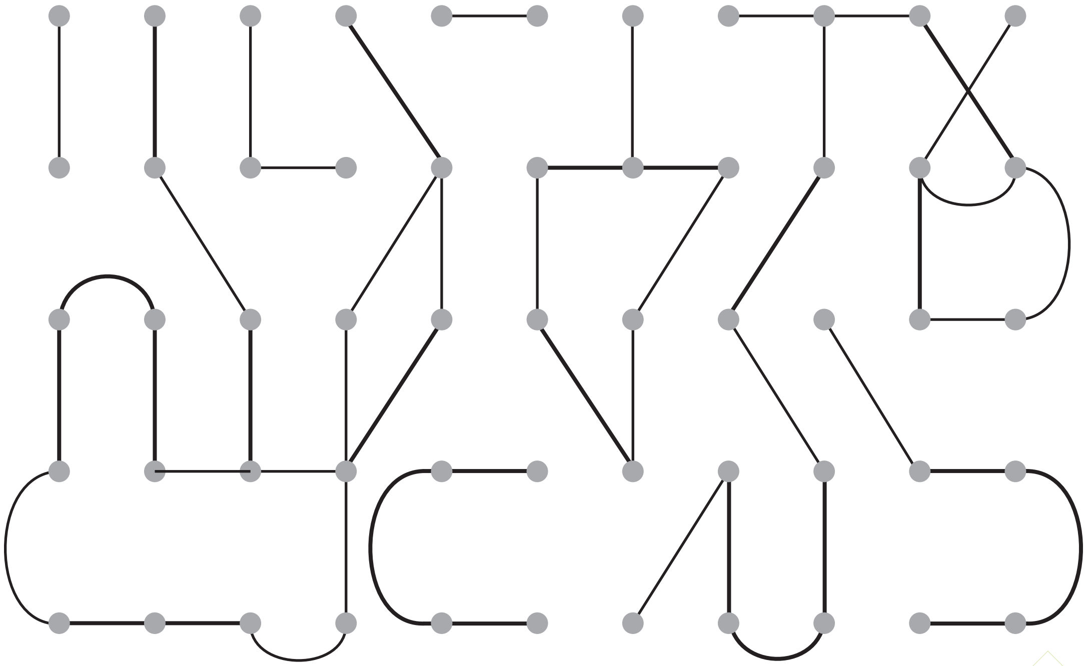
How many?	
Circles	14
Squares	6
Rectangles	4
Triangles	4

Chapter 3: More on Lines

Exercise 3.1

Q. Let us draw some lines by joining the dots.

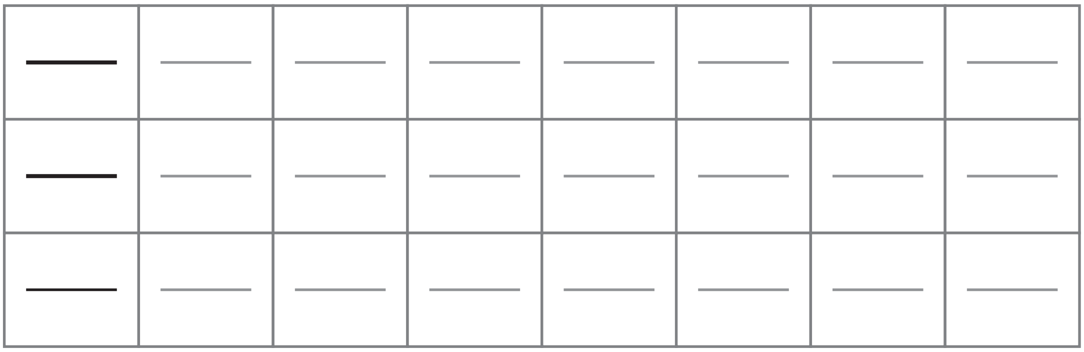
Sol.

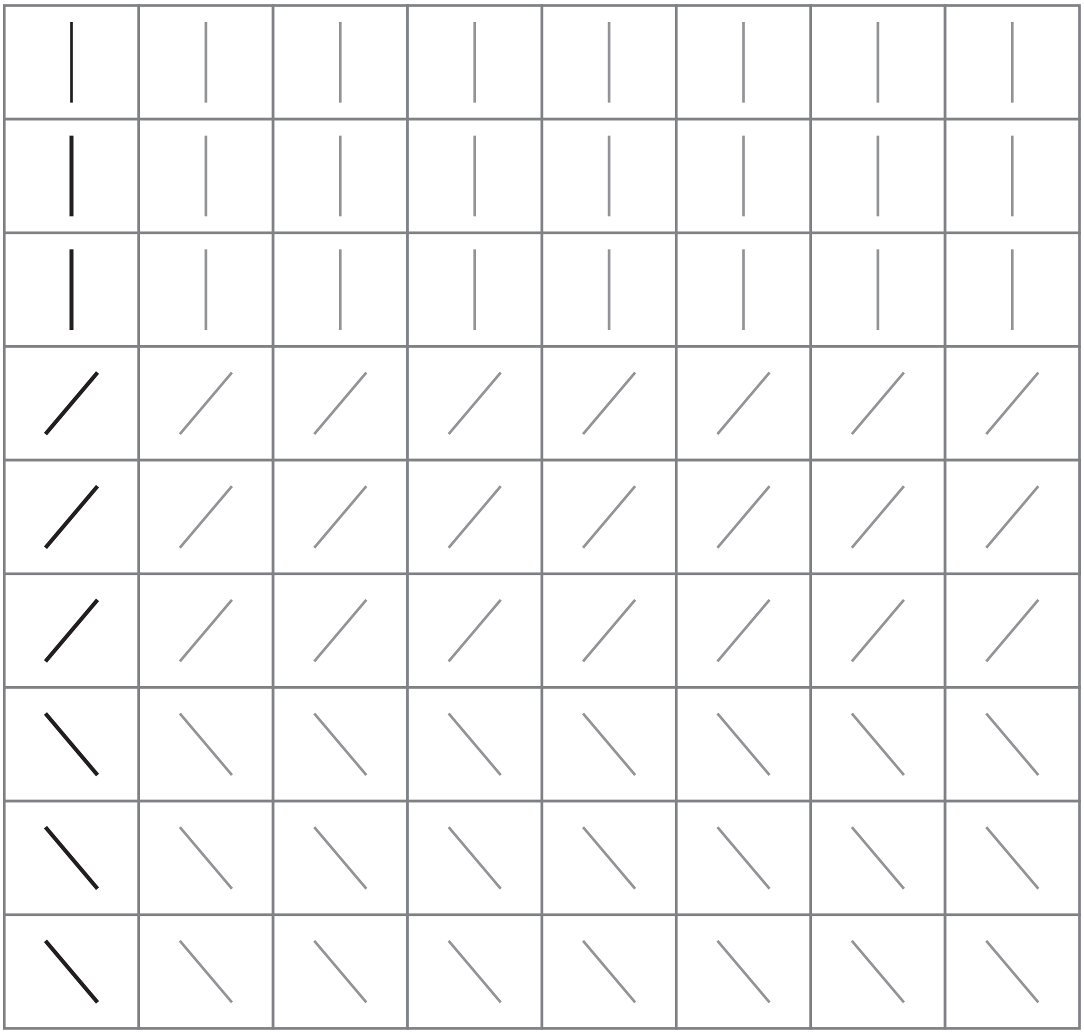


Exercise 3.2

Q. Practice drawing lines.

Sol.





Exercise 3.3

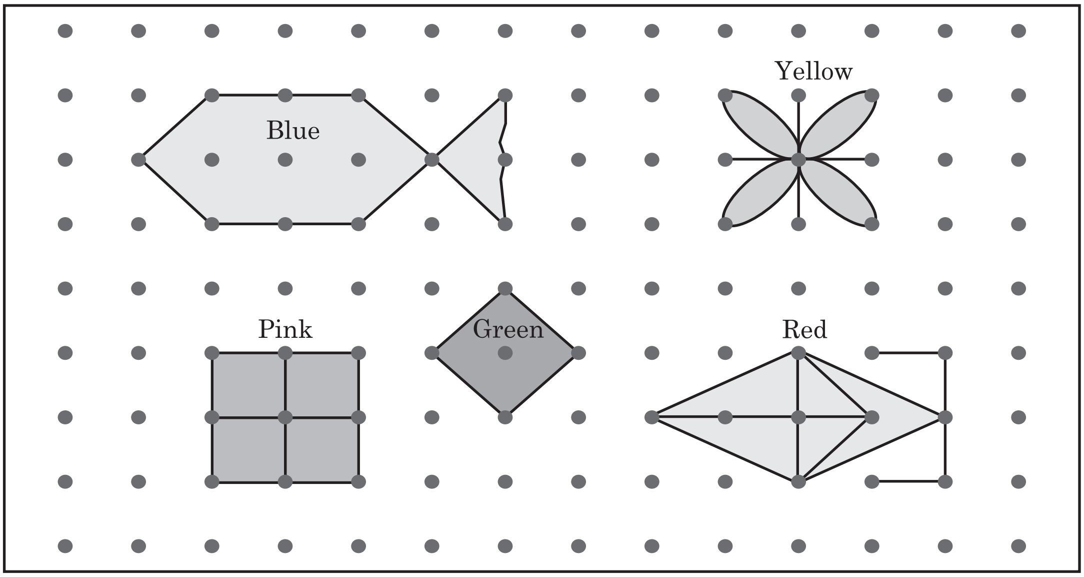
Q.1. Write down numbers made from straight, curved and straight curved (both) lines in table below.

Sol.

(a) Straight line	17, 47, 74, 14
(b) Curved line	63, 80, 60, 93
(c) Straight and curved line	5, 18, 28, 40, 55

Q.2. Make some more designs and then fill colours.

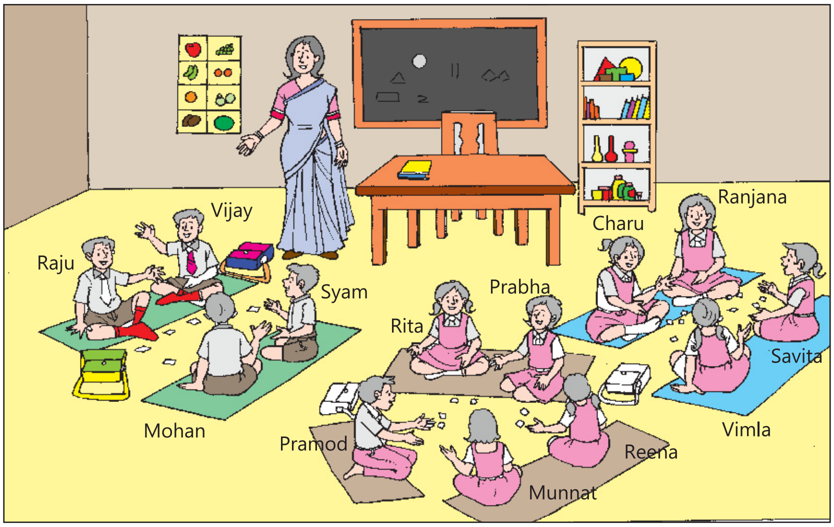
Sol.


Yellow
Blue
Pink
Green
Red

Chapter 4: Who is Where

Exercise 4.1

Here, a scene of a primary school in a village is given. In the class all students are sitting in various manner. Now, see the picture and answer the questions carefully.


Vijay
Raju
Syam
Mohan
Ranjana
Charu
Prabha
Rita
Savita
Vimla
Pramod
Reena
Munnat

Q.1. What things are behind the table?

Sol. Chair, Black board and Almirah

Q.2. Vimla is sitting exactly in front of Ranjana, then who is sitting in front of Savita?

Sol. Charu

Q.3. Pramod is sitting amongst whom?

Sol. Ritu and Munnat

Q.4. Who is sitting very next to Vijay?

Sol. Raju

Exercise 4.2

Q.1. 24 25 26 62 63 64 85 86 87

Sol. (a) Exactly before 26 : 25

(b) Exactly in between 62 and 64, 63

(c) Exactly after 85 : 86

Q.2.

32	54	72
33	55	73
34	56	74

Sol. (a) Exactly above 33 : 32

(b) Exactly below 55 : 56

(c) Exactly in between 72 and 74 : 73

Chapter 5: Numbers

Exercise 5.1

Q.1. Write the numeral for each of the following. One has been done for you.

Sol.

Four hundred seventy-eight	478
One hundred twenty	120
Four hundred seventeen	417
Five hundred fifty-five	555
Seven hundred sixty-six	766
Nine hundred forty	940
Two hundred ninety-two	292
Four hundred eighty-three	483
Seven hundred fifty-nine	759
Eight hundred one	801
Nine hundred fifty	950
One hundred one	101
Four hundred eighty-eight	488
Five hundred seven	507
Six hundred ten	610
Seven hundred nineteen	719

Q.2. Write the number name for each of the following. One has been done for you :

Sol.

208	Two hundred eight	115	One hundred fifteen	200	Two hundred
368	Three hundred sixty-eight	267	Two hundred sixty-seven	344	Three hundred forty-four
419	Four hundred nineteen	350	Three hundred fifty	644	Six hundred forty-four
546	Five hundred forty-six	403	Four hundred three	875	Eight hundred seventy-five
639	Six hundred thirty-nine	558	Five hundred fifty-eight	899	Eight hundred ninety-nine
721	Seven hundred twenty-one	713	Seven hundred thirteen	989	Nine hundred eighty-nine
879	Eight hundred seventy-nine				

Exercise 5.2

Q. Fill in the missing numbers and complete each pattern.

Sol.

95	96	97	98	99	100	101	102	103	104
111	112	113	114	115	116	117	118	119	120
225	226	227	228	229	230	231	232	233	234
304	305	306	307	308	309	310	311	312	313
451	452	453	454	455	456	457	458	459	460
572	573	574	575	576	577	578	579	580	581
628	629	630	631	632	633	634	635	636	637
707	708	709	710	711	712	713	714	715	716
891	892	893	894	895	896	897	898	899	900
896	897	898	899	900	901	902	903	904	905
933	934	935	936	937	938	939	940	941	942

Exercise 5.3

Q.1. Write the number which comes just before :

Sol.

172	173
348	349
499	500
926	927

399	400
875	876
416	417
198	199

609	610
242	243
529	530
700	701

908	909
389	390
777	778
251	252

Q.2. Write the number of which comes just after :

Sol.

909	910
414	415
474	475
989	990

790	791
269	270
547	548
665	666

599	600
804	805
300	301
237	238

902	903
244	245
740	741
998	999

Q.3. Write the number which comes in between :

Sol.

399	400	401
833	834	835
336	337	338
701	702	703

745	746	747
444	445	446
590	591	592
655	656	657

630	631	632
257	258	259
409	410	411
900	901	902

Exercise 5.4

Q. Fill in the placeholders.

Sol.

In 329, 3 is at the hundreds place, its place value is 300 .

In 537, 7 is at the ones place, its face value is 7 .

In 285, 8 is at the tens place, its place value is 80 .

Face value of 5 in 725 is 5 .

Place value of 7 in 679 is 70 .

Face value of 3 in 613 is 3 .

Place value of 3 in 473 is 3 .

Face value of 4 in 948 is 4 .

Place value of 8 in 832 is 800 .

In the number 972 :

Place value of 2 is 2

Place value of 7 is 70

Place value of 9 is 900

In the number 851 :

Face value of 8 is 8

Face value of 5 is 5

Face value of 1 is 1

In the number 906 :

Face value of 9 is 9

Face value of 0 is 0

Face value of 6 is 6

In the number 624 :

Place value of 6 is 600

Place value of 2 is 20

Place value of 4 is 4

Exercise 5.5

Q.1. Write each of the following in the expanded form :

Sol.

258 = 200 + 50 + 8

596 = 500 + 90 + 6

663 = 600 + 60 + 3

820 = 800 + 20 + 0

901 = 900 + 00 + 1

325 = 300 + 20 + 5

433 = 400 + 30 + 3

587 = 500 + 80 + 7

604 = 600 + 00 + 4

729 = 700 + 20 + 9

Q.2. Write the each of the following in short form.

Sol.

100 + 70 + 3 = 173

200 + 80 + 6 = 286

300 + 0 + 9 = 309

400 + 70 + 0 = 470

500 + 90 + 1 = 591

600 + 10 + 7 = 617

700 + 20 + 4 = 724

800 + 70 + 7 = 877

900 + 80 + 5 = 985

600 + 40 + 9 = 649

Exercise 5.6

Q.1. Compare the numbers and put the symbol >, = or < in the box.

Sol.

86 < 103 | 200 > 198 | 498 < 510

340 < 344 | 420 > 402 | 370 > 307

585 < 885 | 681 < 718 | 340 < 348

657 > 649 | 261 > 181 | 738 = 738

703 > 699 | 325 < 353 | 993 > 339

577 < 755 | 482 > 468 | 506 < 509

840 > 839 | 613 < 630 | 482 > 468

Q.2. Put a circle around the smallest number in each row :

Sol.

439	394	493	[✓ 349]	419
440	404	517	751	[✓ 375]
564	654	[✓ 456]	546	465
617	716	176	[✓ 96]	167
706	670	607	760	[✓ 577]
856	658	685	586	[✓ 568]
937	973	793	379	[✓ 167]

Q.3. Put a circle around the greatest number in each row :

Sol.

123	321	231	[✓ 412]	402
316	613	631	361	[✓ 711]
495	549	945	594	[✓ 954]
469	694	496	946	[✓ 964]
[✓ 664]	461	616	641	646
[✓ 786]	678	687	768	759
[✓ 854]	457	547	754	751
903	815	851	[✓ 930]	913

Exercise 5.7

Q.1. Arrange in ascending (increasing) order.

Sol.

385, 721, 456, 712,	385	456	712	721
678, 768, 876, 687,	678	687	768	876
785, 568, 658, 865,	568	658	785	865
821, 218, 720, 481,	218	481	720	821
259, 648, 175, 312,	175	259	312	648

Q.2. Arrange in descending (decreasing) order.

Sol.

234, 423, 324, 196,	423	324	234	196
240, 360, 180, 290,	360	290	240	180
367, 419, 276, 637,	637	419	367	276
520, 479, 602, 398,	602	520	479	398
635, 536, 356, 563,	635	563	536	356

Chapter 6: Addition

Exercise 6.1

Add :

Sol.

$$\begin{array}{ccc} & T & O \\ & 2 & 8 \\ + & 5 & 1 \\ \hline & 7 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 1 & 1 \\ + & 7 & 7 \\ \hline & 8 & 8 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 3 & 5 \\ + & 6 & 4 \\ \hline & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 4 & 7 \\ + & 5 & 2 \\ \hline & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 6 & 4 \\ + & 2 & 5 \\ \hline & 8 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 8 & 5 \\ + & 1 & 3 \\ \hline & 9 & 8 \\ \hline \end{array}$$

$$\begin{array}{ccc} & T & O \\ & 3 & 8 \\ + & 2 & 0 \\ \hline & 5 & 8 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 7 & 2 \\ + & 2 & 7 \\ \hline & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 1 & 0 \\ & 3 & 8 \\ + & 4 & 1 \\ \hline & 8 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 2 & 3 \\ & 5 & 1 \\ + & 1 & 5 \\ \hline & 8 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 4 & 2 \\ & 5 & 3 \\ + & & 3 \\ \hline & 9 & 8 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & 3 & 0 \\ & 2 & 2 \\ + & 4 & 4 \\ \hline & 9 & 6 \\ \hline \end{array}$$

Exercise 6.2

Add :

Sol.

$$\begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 4 & 6 \\ + & 3 & 7 \\ \hline & 8 & 3 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 3 & 9 \\ + & 5 & 8 \\ \hline & 9 & 7 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 6 & 7 \\ + & 2 & 5 \\ \hline & 9 & 2 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 4 & 8 \\ + & 4 & 7 \\ \hline & 9 & 5 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 3 & 6 \\ + & 5 & 4 \\ \hline & 9 & 0 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 2 & 9 \\ + & 6 & 8 \\ \hline & 9 & 7 \\ \hline \end{array}$$

$$\begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 5 & 9 \\ + & 3 & 9 \\ \hline & 9 & 8 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 6 & 3 \\ + & 2 & 9 \\ \hline & 9 & 2 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 6 & 6 \\ + & 2 & 5 \\ \hline & 9 & 1 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 5 & 5 \\ + & 3 & 7 \\ \hline & 9 & 2 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 7 & 9 \\ + & 1 & 6 \\ \hline & 9 & 5 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 5 & 9 \\ + & 2 & 1 \\ \hline & 8 & 0 \\ \hline \end{array}$$

$$\begin{array}{ccc} & T & O \\ & \textcircled{2} & \bigcirc \\ & 1 & 7 \\ & 3 & 6 \\ + & 2 & 9 \\ \hline & 8 & 2 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 3 & 7 \\ & 2 & 6 \\ + & 3 & 5 \\ \hline & 9 & 8 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{2} & \bigcirc \\ & 4 & 9 \\ & 1 & 8 \\ + & 2 & 6 \\ \hline & 9 & 3 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 1 & 8 \\ & 2 & 4 \\ + & 5 & 7 \\ \hline & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 5 & 7 \\ & 2 & 8 \\ + & 1 & 4 \\ \hline & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{2} & \bigcirc \\ & 1 & 3 \\ & 2 & 8 \\ + & 3 & 9 \\ \hline & 8 & 0 \\ \hline \end{array}$$

$$\begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 4 & 5 \\ & 3 & 6 \\ + & 1 & 8 \\ \hline & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{ccc} & T & O \\ & \textcircled{1} & \bigcirc \\ & 2 & 7 \\ & 1 & 6 \\ + & 4 & 6 \\ \hline & 8 & 9 \\ \hline \end{array}$$

Exercise 6.3

Add :

Sol.

$$\begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 4 & 3 \\ + & & 7 & 7 \\ \hline & 1 & 2 & 0 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 5 & 7 \\ + & & 8 & 4 \\ \hline & 1 & 4 & 1 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 9 & 8 \\ + & & 5 & 4 \\ \hline & 1 & 5 & 2 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 6 & 9 \\ + & & 5 & 7 \\ \hline & 1 & 2 & 6 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 7 & 6 \\ + & & 9 & 7 \\ \hline & 1 & 7 & 3 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 3 & 3 \\ + & & 8 & 9 \\ \hline & 1 & 2 & 2 \\ \hline \end{array}$$

$$\begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 9 & 9 \\ + & & 4 & 2 \\ \hline & 1 & 4 & 1 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \bigcirc & \bigcirc \\ & & 8 & 6 \\ + & & 6 & 2 \\ \hline & 1 & 4 & 8 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \bigcirc & \bigcirc \\ & & 7 & 4 \\ + & & 4 & 5 \\ \hline & 1 & 1 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 6 & 8 \\ + & & 8 & 9 \\ \hline & 1 & 5 & 7 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 9 & 9 \\ + & & 9 & 3 \\ \hline & 1 & 9 & 2 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \bigcirc & \bigcirc \\ & & 7 & 4 \\ + & & 4 & 3 \\ \hline & 1 & 1 & 7 \\ \hline \end{array}$$

$$\begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{2} & \bigcirc \\ & & 5 & 8 \\ & & 3 & 7 \\ + & & 2 & 9 \\ \hline & 1 & 2 & 4 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 6 & 4 \\ & & 1 & 8 \\ + & & 8 & 3 \\ \hline & 1 & 6 & 5 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 5 & 4 \\ & & 5 & 9 \\ + & & 2 & 1 \\ \hline & 1 & 3 & 4 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \bigcirc & \textcircled{1} & \bigcirc \\ & & 2 & 8 \\ & & 3 & 2 \\ + & & 2 & 9 \\ \hline & & 8 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{2} & \bigcirc \\ & & 4 & 8 \\ & & 7 & 5 \\ + & & 3 & 8 \\ \hline & 1 & 6 & 1 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 5 & 5 \\ & & 6 & 7 \\ + & & 4 & 2 \\ \hline & 1 & 6 & 4 \\ \hline \end{array}$$

$$\begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 6 & 7 \\ & & 8 & 6 \\ + & & 4 & 3 \\ \hline & 1 & 9 & 6 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 2 & 8 \\ & & 7 & 7 \\ + & & 9 & 2 \\ \hline & 1 & 9 & 7 \\ \hline \end{array}$$

Exercise 6.4

Add :

Sol.

$$\begin{array}{cccc} & H & T & O \\ & 2 & 5 & 8 \\ + & 3 & 4 & 1 \\ \hline & 5 & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 6 & 4 & 6 \\ + & 2 & 1 & 3 \\ \hline & 8 & 5 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 1 & 8 & 6 \\ + & 8 & 1 & 2 \\ \hline & 9 & 9 & 8 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 4 & 3 & 2 \\ + & 2 & 6 & 3 \\ \hline & 6 & 9 & 5 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 6 & 7 & 0 \\ + & 3 & 2 & 5 \\ \hline & 9 & 9 & 5 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 4 & 5 & 2 \\ + & 3 & 4 & 7 \\ \hline & 7 & 9 & 9 \\ \hline \end{array}$$

$$\begin{array}{cccc} & H & T & O \\ & 6 & 3 & 5 \\ + & 2 & 6 & 4 \\ \hline & 8 & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 2 & 3 & 0 \\ + & 7 & 0 & 5 \\ \hline & 9 & 3 & 5 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 7 & 2 & 4 \\ + & 2 & 5 & 2 \\ \hline & 9 & 7 & 6 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 2 & 8 & 3 \\ + & 5 & 0 & 6 \\ \hline & 7 & 8 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 7 & 0 & 8 \\ + & 2 & 7 & 1 \\ \hline & 9 & 7 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 4 & 6 & 6 \\ + & 5 & 1 & 3 \\ \hline & 9 & 7 & 9 \\ \hline \end{array}$$

$$\begin{array}{cccc} & H & T & O \\ & 1 & 4 & 6 \\ & 3 & 1 & 2 \\ + & 4 & 2 & 1 \\ \hline & 8 & 7 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 2 & 1 & 7 \\ & 3 & 2 & 0 \\ + & 4 & 5 & 1 \\ \hline & 9 & 8 & 8 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 5 & 2 & 4 \\ & 2 & 1 & 1 \\ + & 1 & 5 & 3 \\ \hline & 8 & 8 & 8 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 5 & 4 & 3 \\ & 3 & 3 & 4 \\ + & 1 & 1 & 2 \\ \hline & 9 & 8 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 3 & 1 & 5 \\ & 4 & 3 & 2 \\ + & 2 & 2 & 2 \\ \hline & 9 & 6 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 3 & 0 & 5 \\ & 4 & 7 & 0 \\ + & 2 & 1 & 3 \\ \hline & 9 & 8 & 8 \\ \hline \end{array}$$

$$\begin{array}{cccc} & H & T & O \\ & 6 & 5 & 0 \\ & 2 & 0 & 8 \\ + & 1 & 4 & 1 \\ \hline & 9 & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 6 & 1 & 0 \\ & 2 & 6 & 5 \\ + & & 2 & 4 \\ \hline & 8 & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 3 & 6 & 5 \\ & & 3 & 0 \\ + & & & 4 \\ \hline & 3 & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 1 & 1 & 6 \\ & & 7 & 0 \\ + & & 1 & 3 \\ \hline & 1 & 9 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 8 & 2 & 3 \\ & & 5 & 4 \\ + & 1 & 0 & 2 \\ \hline & 9 & 7 & 9 \\ \hline \end{array} \qquad \begin{array}{cccc} & H & T & O \\ & 3 & 4 & 0 \\ & 2 & 0 & 6 \\ + & & 5 & 3 \\ \hline & 5 & 9 & 9 \\ \hline \end{array}$$

Exercise 6.5

Add :

Sol.

$$\begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 6 & 7 & 5 \\ + & 1 & 4 & 8 \\ \hline & 8 & 2 & 3 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 7 & 3 & 6 \\ + & 1 & 6 & 7 \\ \hline & 9 & 0 & 3 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 3 & 7 & 2 \\ + & 4 & 6 & 9 \\ \hline & 8 & 4 & 1 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 6 & 3 & 9 \\ + & 2 & 7 & 8 \\ \hline & 9 & 1 & 7 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{1} & \bigcirc \\ & 8 & 2 & 6 \\ + & 1 & 6 & 9 \\ \hline & 9 & 9 & 5 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 5 & 8 & 4 \\ + & 3 & 9 & 6 \\ \hline & 9 & 8 & 0 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 6 & 8 & 5 \\ + & 1 & 8 & 9 \\ \hline & 8 & 7 & 4 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 2 & 1 & 9 \\ + & 6 & 8 & 4 \\ \hline & 9 & 0 & 3 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 3 & 9 & 5 \\ + & 4 & 5 & 9 \\ \hline & 8 & 5 & 4 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 7 & 6 & 5 \\ + & 1 & 3 & 5 \\ \hline & 9 & 0 & 0 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 4 & 5 & 7 \\ + & 3 & 6 & 9 \\ \hline & 8 & 2 & 6 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 3 & 7 & 6 \\ + & 2 & 9 & 7 \\ \hline & 6 & 7 & 3 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 3 & 4 & 7 \\ & 1 & 5 & 4 \\ + & 4 & 3 & 6 \\ \hline & 9 & 3 & 7 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 5 & 3 & 7 \\ & 1 & 7 & 5 \\ + & 1 & 8 & 7 \\ \hline & 8 & 9 & 9 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 4 & 1 & 7 \\ & 1 & 8 & 5 \\ + & 3 & 7 & 6 \\ \hline & 9 & 7 & 8 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{2} & \textcircled{2} & \bigcirc \\ & 4 & 7 & 8 \\ & 1 & 4 & 5 \\ + & 2 & 7 & 7 \\ \hline & 9 & 0 & 0 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 8 & 6 & 3 \\ & & 3 & 9 \\ + & & 9 & 7 \\ \hline & 9 & 9 & 9 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 5 & 7 & 1 \\ & 1 & 2 & 9 \\ + & & 6 & 8 \\ \hline & 7 & 6 & 8 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 8 & 3 & 4 \\ & & 6 & 5 \\ + & & & 9 \\ \hline & 9 & 0 & 8 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{1} & \textcircled{2} & \bigcirc \\ & 5 & 7 & 6 \\ & 1 & 4 & 5 \\ + & & 3 & 9 \\ \hline & 7 & 6 & 0 \\ \hline \end{array}$$

Exercise 6.6

Q.1. An ice-cream vendor sold 38 ice-creams on Wednesday and 29 on Friday. How many ice-creams did he sell in both days?

Sol.

$$\begin{array}{rcc} & \textcircled{1} & \bigcirc \\ & 3 & 8 \\ + & 2 & 9 \\ \hline & 6 & 7 \\ \hline \end{array}$$

Q.2. One parcel has 88 notebooks and another parcel has 98 notebooks. How many notebooks are there in both the parcels?

Sol.

$$\begin{array}{rccc} & & \textcircled{1} & \bigcirc \\ & & 8 & 8 \\ + & & 9 & 8 \\ \hline & 1 & 8 & 6 \\ \hline \end{array}$$

Q.3. Class II-A has 42 children, class II-B has 38 and class II-C has 29. How many children in all are there in the three sections?

Sol.

$$\begin{array}{rccc} & & \textcircled{1} & \bigcirc \\ & & 4 & 2 \\ & & 4 & 8 \\ + & & 2 & 9 \\ \hline & 1 & 1 & 9 \\ \hline \end{array}$$

Q.4. Mohit collected 79 flowers in one basket, 33 in the second basket and 82 in the third basket. How many flowers did he collect altogether?

Sol.

$$\begin{array}{rccc} & & \textcircled{1} & \bigcirc \\ & & 7 & 9 \\ & & 3 & 3 \\ + & & 8 & 2 \\ \hline & 1 & 9 & 4 \\ \hline \end{array}$$

Q.5. In an examination, 584 students passed and 178 failed. How many students appeared?

Sol.

$$\begin{array}{rccc} & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 5 & 8 & 4 \\ + & 1 & 7 & 8 \\ \hline & 7 & 6 & 2 \\ \hline \end{array}$$

Q.6. In an election, there were two candidates. One candidate got 287 votes and the other got 219 votes. How many votes were polled in all?

Sol.
$$\begin{array}{cccc} & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 2 & 8 & 7 \\ + & 2 & 1 & 9 \\ \hline & 5 & 0 & 6 \\ \hline \end{array}$$

Q.7. A number is 556 more than 294. What is the number?

Sol.
$$\begin{array}{cccc} & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 2 & 9 & 4 \\ + & 5 & 5 & 6 \\ \hline & 8 & 5 & 0 \\ \hline \end{array}$$

Q.8. There are 249 mango trees, 179 guava trees and 56 jamun trees in a garden. How many trees in all are there in the garden?

Sol.
$$\begin{array}{cccc} & \textcircled{1} & \textcircled{2} & \bigcirc \\ & 2 & 4 & 9 \\ & 1 & 7 & 9 \\ + & & 5 & 6 \\ \hline & 4 & 8 & 4 \\ \hline \end{array}$$

Q.9. In a library, there are 194 books in Hindi, 268 in English and 479 in Tamil. How many books in all are there in the library?

Sol.
$$\begin{array}{cccc} & \textcircled{2} & \textcircled{2} & \bigcirc \\ & 1 & 9 & 4 \\ & 2 & 6 & 8 \\ + & 4 & 7 & 9 \\ \hline & 9 & 4 & 1 \\ \hline \end{array}$$

Q.10. At a fair there were 178 visitors on the first day, 385 on the second day and 167 on the third day. How many visitors came to the fair during these three days?

Sol.
$$\begin{array}{cccc} & \textcircled{2} & \textcircled{2} & \bigcirc \\ & 1 & 7 & 8 \\ & 3 & 8 & 5 \\ + & 1 & 6 & 7 \\ \hline & 7 & 3 & 0 \\ \hline \end{array}$$

Chapter 7: Subtraction

Exercise 7.1

Subtract :

Sol.

$$\begin{array}{ccc} & T & O \\ & & 8 \\ - & & 6 \\ \hline & & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & & 9 \\ - & & 8 \\ \hline & & 1 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 2 & 8 \\ - & & 2 \\ \hline & 2 & 6 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 2 & 5 \\ - & & 2 \\ \hline & 2 & 3 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 6 & 6 \\ - & 4 & 4 \\ \hline & 2 & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 8 & 8 \\ - & 2 & 4 \\ \hline & 6 & 4 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 8 & 6 \\ - & 2 & 3 \\ \hline & 6 & 3 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 5 & 7 \\ - & 3 & 4 \\ \hline & 2 & 3 \\ \hline \end{array}$$

$$\begin{array}{ccc} & T & O \\ & 6 & 2 \\ - & 4 & 0 \\ \hline & 2 & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 7 & 5 \\ - & 5 & 4 \\ \hline & 2 & 1 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 9 & 3 \\ - & 2 & 2 \\ \hline & 7 & 1 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 3 & 8 \\ - & 2 & 7 \\ \hline & 1 & 1 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 4 & 6 \\ - & 1 & 5 \\ \hline & 3 & 1 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 7 & 9 \\ - & 4 & 5 \\ \hline & 3 & 4 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & 6 & 7 \\ - & 3 & 5 \\ \hline & 3 & 2 \\ \hline \end{array}$$

Exercise 7.2

Subtract :

Sol.

$$\begin{array}{ccc} & T & O \\ & \textcircled{4} & \textcircled{13} \\ & 5 & 3 \\ - & 1 & 8 \\ \hline & 3 & 5 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{3} & \textcircled{12} \\ & 4 & 2 \\ - & 1 & 7 \\ \hline & 2 & 5 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{5} & \textcircled{15} \\ & 6 & 5 \\ - & 4 & 8 \\ \hline & 1 & 7 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{6} & \textcircled{12} \\ & 7 & 2 \\ - & 5 & 9 \\ \hline & 1 & 3 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{7} & \textcircled{14} \\ & 8 & 4 \\ - & 4 & 6 \\ \hline & 3 & 8 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{8} & \textcircled{10} \\ & 9 & 0 \\ - & 6 & 8 \\ \hline & 2 & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{4} & \textcircled{17} \\ & 5 & 7 \\ - & 2 & 9 \\ \hline & 2 & 8 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{7} & \textcircled{14} \\ & 8 & 4 \\ - & 6 & 5 \\ \hline & 1 & 9 \\ \hline \end{array}$$

$$\begin{array}{ccc} & T & O \\ & \textcircled{5} & \textcircled{12} \\ & 6 & 2 \\ - & 4 & 4 \\ \hline & 1 & 8 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{6} & \textcircled{17} \\ & 7 & 7 \\ - & 6 & 9 \\ \hline & 0 & 8 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{6} & \textcircled{10} \\ & 7 & 0 \\ - & 5 & 6 \\ \hline & 1 & 4 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{3} & \textcircled{16} \\ & 4 & 6 \\ - & 2 & 7 \\ \hline & 1 & 9 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{7} & \textcircled{10} \\ & 8 & 0 \\ - & 6 & 3 \\ \hline & 1 & 7 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{4} & \textcircled{14} \\ & 5 & 4 \\ - & 2 & 5 \\ \hline & 2 & 9 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{3} & \textcircled{13} \\ & 4 & 3 \\ - & 3 & 9 \\ \hline & 0 & 4 \\ \hline \end{array} \quad \begin{array}{ccc} & T & O \\ & \textcircled{5} & \textcircled{12} \\ & 6 & 2 \\ - & 3 & 3 \\ \hline & 2 & 9 \\ \hline \end{array}$$

$$\begin{array}{rcc} & T & O \\ & \textcircled{6} & \textcircled{12} \\ & 7 & 2 \\ - & 3 & 4 \\ \hline & 3 & 8 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{5} & \textcircled{11} \\ & 6 & 1 \\ - & 2 & 9 \\ \hline & 3 & 2 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{7} & \textcircled{10} \\ & 8 & 0 \\ - & 7 & 8 \\ \hline & 0 & 2 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{11} \\ & 9 & 1 \\ - & 1 & 9 \\ \hline & 7 & 2 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{3} & \textcircled{10} \\ & 4 & 0 \\ - & 2 & 7 \\ \hline & 1 & 3 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{4} & \textcircled{12} \\ & 5 & 2 \\ - & 3 & 7 \\ \hline & 1 & 5 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{13} \\ & 9 & 3 \\ - & 3 & 9 \\ \hline & 5 & 4 \\ \hline \end{array} \quad \begin{array}{rcc} & T & O \\ & \textcircled{6} & \textcircled{12} \\ & 7 & 2 \\ - & 5 & 7 \\ \hline & 1 & 5 \\ \hline \end{array}$$

Exercise 7.3

Solve the following word problems.

Q.1. Sonia has 37 apples. 26 of them are rotten. How many of them are good?

Sol.

$$\begin{array}{rcc} & T & O \\ & 3 & 7 \\ - & 2 & 6 \\ \hline & 1 & 1 \\ \hline \end{array}$$

Q.2. Manav had 85 rupees with him. He spent 69 rupees to buy a copy. How many rupees are left with Manav?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{7} & \textcircled{15} \\ & 8 & 5 \\ - & 6 & 9 \\ \hline & 1 & 6 \\ \hline \end{array}$$

Q.3. In a class, there are 95 pupils. Out of these, 58 are girls. How many boys are there in the class?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{15} \\ & 9 & 5 \\ - & 5 & 8 \\ \hline & 3 & 7 \\ \hline \end{array}$$

Q.4. Ajay has 95 cattle in his dairy farm. Out of these, 26 are buffaloes and the ramaining are cows. How many cows are there in his dairy farm?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{15} \\ & 9 & 5 \\ - & 2 & 6 \\ \hline & 6 & 9 \\ \hline \end{array}$$

Q.5. In a class, there are 91 students. On a rainy day, 35 remained present. How many students were absent on that day?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{8} & \textcircled{11} \\ & 9 & 1 \\ - & 3 & 5 \\ \hline & 5 & 6 \\ \hline \end{array}$$

Q.6. Ritu bought 80 chocolates on her birthday. She distributed 56 to her friends. How many chocolates were left with her?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{7} & \textcircled{10} \\ & 8 & 0 \\ - & 5 & 6 \\ \hline & 2 & 4 \\ \hline \end{array}$$

Q.7. There are 76 workers in an office. 39 of them are men. How many women work in that office?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{6} & \textcircled{16} \\ & 7 & 6 \\ - & 3 & 9 \\ \hline & 3 & 7 \\ \hline \end{array}$$

Q.8. How much is 52 less than 81?

Sol.

$$\begin{array}{rcc} & T & O \\ & \textcircled{7} & \textcircled{11} \\ & 8 & 1 \\ - & 5 & 2 \\ \hline & 2 & 9 \\ \hline \end{array}$$

Exercise 7.4

Subtract :

Sol.

$$\begin{array}{rccc} & H & T & O \\ & 9 & 5 & 4 \\ - & 3 & 4 & 3 \\ \hline & 6 & 1 & 1 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 6 & 7 & 8 \\ - & 5 & 3 & 2 \\ \hline & 1 & 4 & 6 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 9 & 8 & 7 \\ - & 6 & 4 & 2 \\ \hline & 3 & 4 & 5 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 3 & 4 & 5 \\ - & 2 & 2 & 3 \\ \hline & 1 & 2 & 2 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 7 & 2 & 6 \\ - & 4 & 0 & 2 \\ \hline & 3 & 2 & 4 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 6 & 5 & 6 \\ - & 4 & 3 & 4 \\ \hline & 2 & 2 & 2 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & 7 & 8 & 5 \\ - & 6 & 6 & 0 \\ \hline & 1 & 2 & 5 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 3 & 7 & 6 \\ - & 2 & 4 & 6 \\ \hline & 1 & 3 & 0 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 8 & 2 & 4 \\ - & 3 & 0 & 2 \\ \hline & 5 & 2 & 2 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 5 & 3 & 9 \\ - & 4 & 1 & 0 \\ \hline & 1 & 2 & 9 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 4 & 7 & 5 \\ - & 1 & 3 & 1 \\ \hline & 3 & 4 & 4 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 5 & 9 & 4 \\ - & 2 & 6 & 2 \\ \hline & 3 & 3 & 2 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & 6 & 0 & 8 \\ - & 4 & 0 & 6 \\ \hline & 2 & 0 & 2 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 7 & 6 & 0 \\ - & 3 & 2 & 0 \\ \hline & 4 & 4 & 0 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 4 & 8 & 6 \\ - & 1 & 7 & 3 \\ \hline & 3 & 1 & 3 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 6 & 8 & 7 \\ - & 3 & 3 & 2 \\ \hline & 3 & 5 & 5 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 3 & 5 & 6 \\ - & & 2 & 5 \\ \hline & 3 & 3 & 1 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 4 & 8 & 3 \\ - & & 7 & 2 \\ \hline & 4 & 1 & 1 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & 4 & 7 & 8 \\ - & & 7 & 6 \\ \hline & 4 & 0 & 2 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & 6 & 4 & 9 \\ - & 3 & 2 & 9 \\ \hline & 3 & 2 & 0 \\ \hline \end{array}$$

Exercise 7.5

Subtract :

Sol.

$$\begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{13} & \bigcirc \\ & \textcircled{5} & \textcircled{3} & \textcircled{10} \\ & 6 & 4 & 0 \\ - & 3 & 7 & 6 \\ \hline & 2 & 6 & 4 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{11} & \bigcirc \\ & \textcircled{5} & \textcircled{1} & \textcircled{15} \\ & 6 & 2 & 5 \\ - & 4 & 9 & 6 \\ \hline & 1 & 2 & 9 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & & & \\ & \textcircled{8} & \textcircled{9} & \textcircled{10} \\ & 9 & 0 & 0 \\ - & 5 & 3 & 3 \\ \hline & 3 & 6 & 7 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{10} & \bigcirc \\ & \textcircled{7} & \textcircled{0} & \textcircled{12} \\ & 8 & 1 & 2 \\ - & 6 & 5 & 4 \\ \hline & 1 & 5 & 8 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{10} & \bigcirc \\ & \textcircled{4} & \textcircled{0} & \textcircled{14} \\ & 5 & 1 & 4 \\ - & 3 & 7 & 7 \\ \hline & 1 & 3 & 7 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{11} & \bigcirc \\ & \textcircled{5} & \textcircled{1} & \textcircled{10} \\ & 6 & 2 & 0 \\ - & 4 & 8 & 8 \\ \hline & 1 & 3 & 2 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & & & \\ & & & \\ & 7 & 2 & 9 \\ - & 4 & 2 & 8 \\ \hline & 3 & 0 & 1 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{11} & \bigcirc \\ & \textcircled{7} & \textcircled{1} & \textcircled{10} \\ & 8 & 2 & 0 \\ - & 6 & 5 & 4 \\ \hline & 1 & 6 & 6 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{11} & \bigcirc \\ & \textcircled{6} & \textcircled{1} & \textcircled{12} \\ & 7 & 2 & 2 \\ - & 6 & 5 & 6 \\ \hline & 0 & 6 & 6 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{11} & \bigcirc \\ & \textcircled{7} & \textcircled{2} & \textcircled{14} \\ & 8 & 3 & 4 \\ - & 5 & 4 & 9 \\ \hline & 2 & 8 & 5 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & & & \\ & \bigcirc & \textcircled{4} & \textcircled{10} \\ & 9 & 5 & 0 \\ - & 7 & 3 & 2 \\ \hline & 2 & 1 & 8 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{11} & \bigcirc \\ & \textcircled{5} & \textcircled{1} & \textcircled{17} \\ & 6 & 2 & 7 \\ - & 4 & 3 & 9 \\ \hline & 1 & 8 & 8 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & \textcircled{8} & \textcircled{9} & \textcircled{12} \\ & 9 & 0 & 2 \\ - & 7 & 6 & 7 \\ \hline & 1 & 3 & 5 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{6} & \textcircled{9} & \textcircled{14} \\ & 7 & 0 & 4 \\ - & 5 & 9 & 8 \\ \hline & 1 & 0 & 6 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{7} & \textcircled{9} & \textcircled{11} \\ & 8 & 0 & 1 \\ - & 4 & 4 & 2 \\ \hline & 3 & 5 & 2 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{5} & \textcircled{9} & \textcircled{17} \\ & 6 & 0 & 7 \\ - & 4 & 9 & 9 \\ \hline & 1 & 0 & 8 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{3} & \textcircled{9} & \textcircled{13} \\ & 4 & 0 & 3 \\ - & 2 & 8 & 5 \\ \hline & 1 & 1 & 8 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \textcircled{8} & \textcircled{9} & \textcircled{10} \\ & 9 & 0 & 0 \\ - & 3 & 5 & 2 \\ \hline & 5 & 4 & 8 \\ \hline \end{array}$$

$$\begin{array}{rccc} & H & T & O \\ & & & \\ & \textcircled{5} & \textcircled{9} & \textcircled{10} \\ & 6 & 0 & 0 \\ - & 5 & 6 & 4 \\ \hline & 0 & 3 & 6 \\ \hline \end{array} \quad \begin{array}{rccc} & H & T & O \\ & \bigcirc & \textcircled{13} & \bigcirc \\ & \textcircled{6} & \textcircled{3} & \textcircled{10} \\ & 7 & 4 & 0 \\ - & 4 & 8 & 8 \\ \hline & 2 & 5 & 2 \\ \hline \end{array}$$

Exercise 7.6

Solve the following word problems.

Q.1. Puneet had 128 balloons. 96 of them blew away. How many balloons were left with him?

Sol.
$$\begin{array}{rrrr} & \textcircled{0} & \textcircled{12} & \bigcirc \\ & 1 & 2 & 8 \\ & - & 9 & 6 \\ \hline & & 3 & 2 \\ \hline \end{array}$$

Q.2. 790 students appeared in an examination. Out of these 598 passed. How many students failed?

Sol.
$$\begin{array}{rrrr} & & \textcircled{18} & \\ & \textcircled{6} & \textcircled{8} & \textcircled{10} \\ & 7 & 9 & 0 \\ - & 5 & 9 & 8 \\ \hline & 1 & 9 & 2 \\ \hline \end{array}$$

Q.3. There were 958 passengers in a train. Out of them, 319 got down at a station. How many passengers are left in the train?

Sol.
$$\begin{array}{rrrr} & \bigcirc & \textcircled{4} & \textcircled{18} \\ & 9 & 5 & 8 \\ - & 3 & 1 & 9 \\ \hline & 6 & 3 & 9 \\ \hline \end{array}$$

Q.4. Kumkum had 800 rupees. She gave 654 rupees to her brother. How many rupees are left with her?

Sol.
$$\begin{array}{rrrr} & \textcircled{7} & \textcircled{9} & \textcircled{10} \\ & 8 & 0 & 0 \\ - & 6 & 5 & 4 \\ \hline & 1 & 4 & 6 \\ \hline \end{array}$$

Q.5. There were 916 hens in a farm. 269 hens died. How many hens are left in the farm?

Sol.
$$\begin{array}{rrrr} & & \textcircled{10} & \\ & \textcircled{8} & \textcircled{0} & \textcircled{16} \\ & 9 & 1 & 6 \\ - & 2 & 6 & 9 \\ \hline & 6 & 4 & 7 \\ \hline \end{array}$$

Q.6. A school had 102 holidays. How many days does the school open during the year?

Sol.
$$\begin{array}{rrrr} & \bigcirc & \bigcirc & \bigcirc \\ & 3 & 6 & 5 \\ - & 1 & 0 & 2 \\ \hline & 2 & 6 & 3 \\ \hline \end{array}$$

Q.7. How much is 924 greater than 789?

Sol.
$$\begin{array}{rrrr} & & \textcircled{11} & \\ & \textcircled{8} & \textcircled{1} & \textcircled{14} \\ & 9 & 2 & 4 \\ - & 7 & 8 & 9 \\ \hline & 1 & 3 & 5 \\ \hline \end{array}$$

Q.8. Raman bought a cricket bat for 876 rupees. He gave a 2000 rupee to the shopkeeper. How many rupees did he get back?

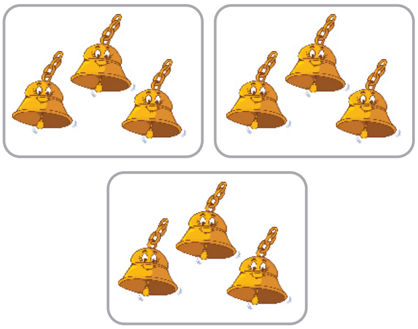
Sol.
$$\begin{array}{rrrr} \textcircled{1} & \textcircled{9} & \textcircled{9} & \textcircled{10} \\ 2 & 0 & 0 & 0 \\ - & 8 & 7 & 6 \\ \hline 1 & 1 & 2 & 4 \\ \hline \end{array}$$

Chapter 8: Multiplication

Exercise 8.1

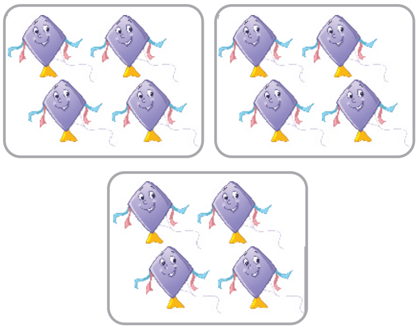
Q.1. Fill in the placeholders as shown.

Sol.



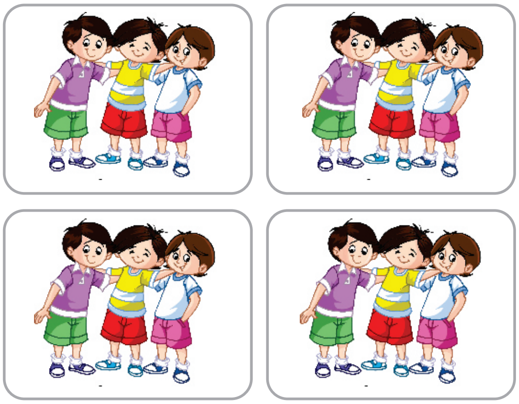
3 + 3 + 3 = 9

3 × 3 = 9



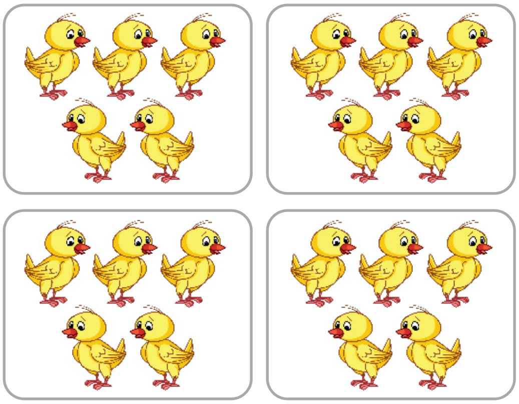
4 + 4 + 4 = 12

4 × 3 = 12



3 + 3 + 3 + 3 = 12

3 × 4 = 12

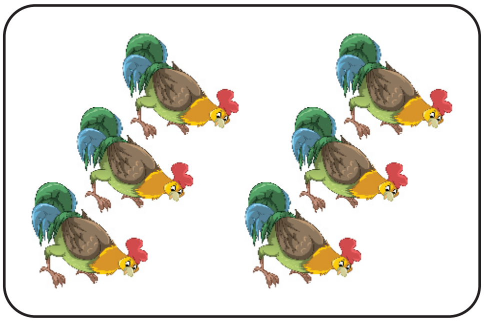


5 + 5 + 5 + 5 = 20

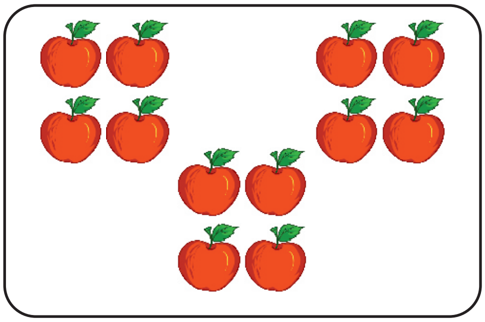
5 × 4 = 20

Q.2. Write the multiplication fact for each of the following.

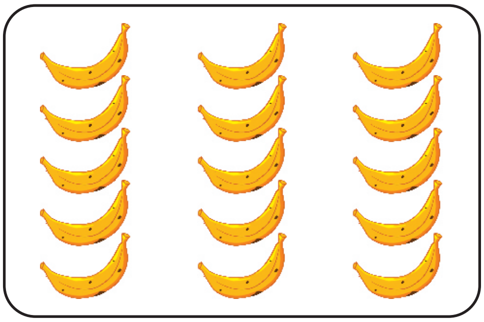
Sol.



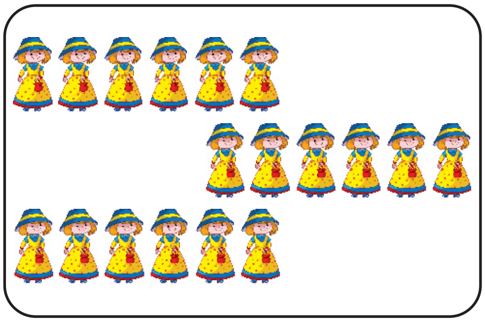
3 × 2 = 6



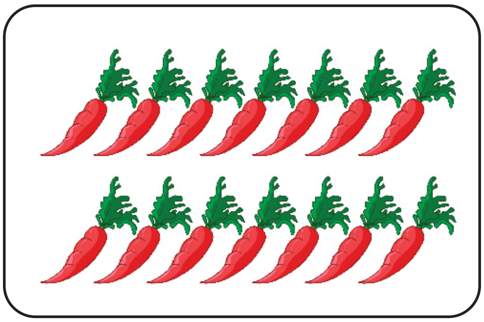
4 × 3 = 12



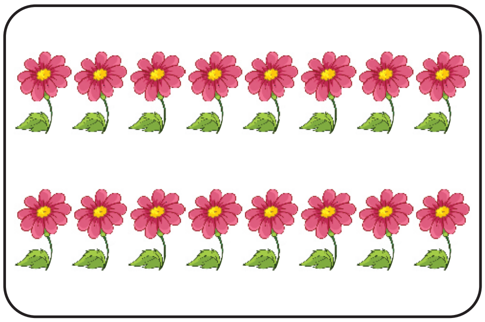
$5 \times 3 = 15$



$6 \times 3 = 18$



$7 \times 2 = 14$



$8 \times 2 = 16$

Q.3. Write the multiplication fact for each of the following.

Sol.

$2 + 2 + 2 + 2 + 2 = 10$

$2 \times 5 = \boxed{10}$

$3 + 3 + 3 + 3 + 3 + 3 = 18$

$3 \times 6 = \boxed{18}$

$4 + 4 + 4 + 4 + 4 + 4 = 24$

$4 \times 6 = \boxed{24}$

$6 + 6 + 6 + 6 + 6 = 30$

$6 \times 5 = \boxed{30}$

$5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$

$5 \times 7 = \boxed{35}$

$7 + 7 + 7 + 7 + 7 + 7 = 42$

$7 \times 6 = \boxed{42}$

Q.4. Find the product using multiplication as repeated addition.

Sol.

$3 \times 5 = 3 + 3 + 3 + 3 + 3 = \boxed{15}$

$5 \times 4 = 5 + 5 + 5 + 5 = \boxed{20}$

$2 \times 6 = 2 + 2 + 2 + 2 + 2 + 2 = \boxed{12}$

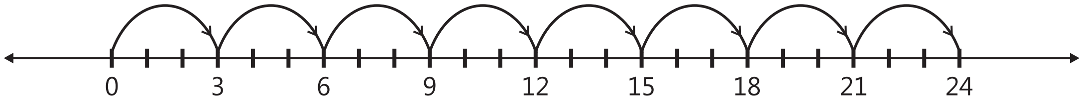
$3 \times 4 = 3 + 3 + 3 + 3 = \boxed{12}$

$4 \times 7 = 4 + 4 + 4 + 4 + 4 + 4 + 4 = \boxed{28}$

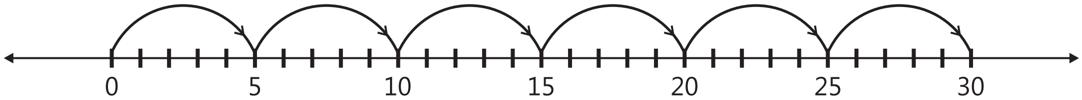
Exercise 8.2

Use the number line for multiplication and fill in the placeholders.

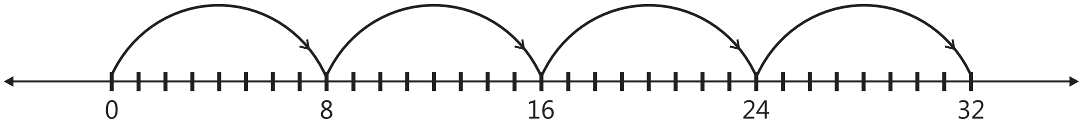
Sol.



$3 \times 8 = \boxed{3 + 3 + 3 + 3 + 3 + 3 + 3 + 3} = \boxed{24}$



5 × 6 = $\boxed{5 + 5 + 5 + 5 + 5 + 5}$ = $\boxed{30}$



8 × 4 = $\boxed{8 + 8 + 8 + 8}$ = $\boxed{32}$

Exercise 8.3

Q.1. Complete the following multiplication table :

Sol.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Q.2. Fill in the placeholders with the help of multiplication tables.

Sol. 3 × 5 = $\boxed{15}$ 3 × 8 = $\boxed{24}$ 7 × 9 = $\boxed{63}$ 4 × 6 = $\boxed{24}$ 5 × 8 = $\boxed{40}$ 5 × 7 = $\boxed{35}$

5 × 4 = $\boxed{20}$ 6 × 9 = $\boxed{54}$ 6 × 8 = $\boxed{48}$ 6 × 7 = $\boxed{42}$ 7 × 7 = $\boxed{49}$ 7 × 6 = $\boxed{42}$

Q.3. Solve the following word problems.

Sol. (a) Every man has 2 hands. How many hand do 8 men have?

$$\begin{array}{r} 8 \\ \times\ 2 \\ \hline 16 \\ \hline \end{array}$$

(b) A table has 4 legs. How many legs do 6 tables have?

$$\begin{array}{r} 4 \\ \times\ 6 \\ \hline 24 \\ \hline \end{array}$$

(c) There are 10 crayons in one packet. How many crayons are there in 8 packets?

$$\begin{array}{r} 10 \\ \times\ 8 \\ \hline 80 \\ \hline \end{array}$$

(d) 4 toffees are given to each child. How many toffees do 7 children get?

$$\begin{array}{r} 4 \\ \times 7 \\ \hline 28 \\ \hline \end{array}$$

Exercise 8.4

Multiply :

Sol.

$$\begin{array}{cc} \text{T} & \text{O} \\ 1 & 2 \\ \times & 2 \\ \hline 2 & 4 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 1 & 3 \\ \times & 3 \\ \hline 3 & 9 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 2 & 1 \\ \times & 3 \\ \hline 6 & 3 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 2 & 4 \\ \times & 2 \\ \hline 4 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 3 & 1 \\ \times & 2 \\ \hline 6 & 2 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 3 & 3 \\ \times & 3 \\ \hline 9 & 9 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 4 & 4 \\ \times & 2 \\ \hline 8 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 2 & 2 \\ \times & 3 \\ \hline 6 & 6 \\ \hline \end{array}$$

$$\begin{array}{cc} \text{T} & \text{O} \\ 4 & 3 \\ \times & 2 \\ \hline 8 & 6 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 2 & 1 \\ \times & 4 \\ \hline 8 & 4 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 1 & 4 \\ \times & 2 \\ \hline 2 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 3 & 1 \\ \times & 3 \\ \hline 9 & 3 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 2 & 2 \\ \times & 4 \\ \hline 8 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 1 & 1 \\ \times & 8 \\ \hline 8 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 3 & 3 \\ \times & 2 \\ \hline 6 & 6 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 1 & 2 \\ \times & 4 \\ \hline 4 & 8 \\ \hline \end{array}$$

$$\begin{array}{cc} \text{T} & \text{O} \\ 3 & 4 \\ \times & 2 \\ \hline 6 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 2 & 2 \\ \times & 2 \\ \hline 4 & 4 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 4 & 2 \\ \times & 2 \\ \hline 8 & 4 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ 1 & 3 \\ \times & 2 \\ \hline 2 & 6 \\ \hline \end{array}$$

Exercise 8.5

Q.1. Multiply :

Sol.

$$\begin{array}{cc} \text{T} & \text{O} \\ \textcircled{3} & \bigcirc \\ 1 & 6 \\ \times & 6 \\ \hline 9 & 6 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{1} & \bigcirc \\ 2 & 3 \\ \times & 4 \\ \hline 9 & 2 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{1} & \bigcirc \\ 1 & 6 \\ \times & 3 \\ \hline 4 & 8 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{1} & \bigcirc \\ 2 & 4 \\ \times & 3 \\ \hline 7 & 2 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{1} & \bigcirc \\ 1 & 3 \\ \times & 4 \\ \hline 5 & 2 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{3} & \bigcirc \\ 1 & 6 \\ \times & 5 \\ \hline 8 & 0 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{2} & \bigcirc \\ 1 & 9 \\ \times & 3 \\ \hline 5 & 7 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{1} & \bigcirc \\ 1 & 4 \\ \times & 4 \\ \hline 5 & 6 \\ \hline \end{array}$$

$$\begin{array}{cc} \text{T} & \text{O} \\ \textcircled{1} & \bigcirc \\ 2 & 5 \\ \times & 2 \\ \hline 5 & 0 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{2} & \bigcirc \\ 1 & 7 \\ \times & 3 \\ \hline 5 & 1 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{2} & \bigcirc \\ 1 & 5 \\ \times & 5 \\ \hline 7 & 5 \\ \hline \end{array} \quad \begin{array}{cc} \text{T} & \text{O} \\ \textcircled{3} & \bigcirc \\ 1 & 8 \\ \times & 4 \\ \hline 7 & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{1} & \bigcirc \\ & 7 & 5 \\ & \times & 3 \\ \hline 2 & 2 & 5 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{1} & \bigcirc \\ & 8 & 4 \\ & \times & 3 \\ \hline 2 & 5 & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{1} & \bigcirc \\ & 9 & 2 \\ & \times & 7 \\ \hline 6 & 4 & 4 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{5} & \bigcirc \\ & 8 & 7 \\ & \times & 8 \\ \hline 6 & 9 & 6 \\ \hline \end{array}$$

$$\begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{7} & \bigcirc \\ & 7 & 8 \\ & \times & 9 \\ \hline 7 & 0 & 2 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{5} & \bigcirc \\ & 5 & 9 \\ & \times & 6 \\ \hline 3 & 5 & 4 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{6} & \bigcirc \\ & 3 & 7 \\ & \times & 9 \\ \hline 3 & 3 & 3 \\ \hline \end{array} \quad \begin{array}{ccc} & \text{T} & \text{O} \\ & \textcircled{5} & \bigcirc \\ & 4 & 6 \\ & \times & 9 \\ \hline 4 & 1 & 4 \\ \hline \end{array}$$

Q.2. Solve the following word problems.

Sol. (a) There are 28 students in a section of a class. How many students are there in such 4 sections?

$$\begin{array}{ccc} & \textcircled{3} & \bigcirc \\ & 2 & 8 \\ & \times & 4 \\ \hline 1 & 1 & 2 \\ \hline \end{array}$$

(b) An almirah has 9 shelves. 49 books are kept on each shelf. How many books are there in the almirah?

$$\begin{array}{ccc} & \textcircled{8} & \bigcirc \\ & 4 & 9 \\ & \times & 9 \\ \hline 4 & 4 & 1 \\ \hline \end{array}$$

(c) There are 9 players in a team. 12 teams took part in a contest. How many players participated in the contest?

$$\begin{array}{ccc} & \textcircled{1} & \bigcirc \\ & 1 & 2 \\ & \times & 9 \\ \hline 1 & 0 & 8 \\ \hline \end{array}$$

(d) There are 32 balls in a bag. How many balls are there in such 5 bags?

$$\begin{array}{rrr} & \textcircled{1} & \bigcirc \\ & 3 & 2 \\ & \times & 5 \\ \hline 1 & 6 & 0 \\ \hline \end{array}$$

(e) There are 7 days in a week. How many days are there in 52 weeks?

$$\begin{array}{rrr} & \textcircled{1} & \bigcirc \\ & 5 & 2 \\ & \times & 7 \\ \hline 3 & 6 & 4 \\ \hline \end{array}$$

(f) There are 97 apples in a carton. How many apples are there in 6 such carton?

$$\begin{array}{rrr} & \textcircled{4} & \bigcirc \\ & 9 & 7 \\ & \times & 6 \\ \hline 5 & 8 & 2 \\ \hline \end{array}$$

Exercise 8.6

Fill in the placeholders. One has been done for you.

Sol. $1 \times 2 = \boxed{2}$ $1 \times 3 = \boxed{3}$ $6 \times 1 = \boxed{6}$ $1 \times 9 = \boxed{9}$ $10 \times 1 = \boxed{10}$ $1 \times 8 = \boxed{8}$

$2 \times 1 = \boxed{2}$ $5 \times 1 = \boxed{5}$ $9 \times 1 = \boxed{9}$ $4 \times 1 = \boxed{4}$ $1 \times 12 = \boxed{12}$ $1 \times 25 = \boxed{25}$

$7 \times 1 = \boxed{7}$ $11 \times 1 = \boxed{11}$ $1 \times 14 = \boxed{14}$

Exercise 8.8

Fill in the placeholders. One has been done for you.

Sol. 2 × 3 = 3 × ② 3 × 4 = 4 × ③ 5 × 2 = 2 × ⑤ 6 × 2 = 2 × ⑥

3 × 8 = 8 × ③ 9 × 5 = 5 × ⑨ 2 × 8 = ⑧ × 2 2 × 6 = ⑥ × 2

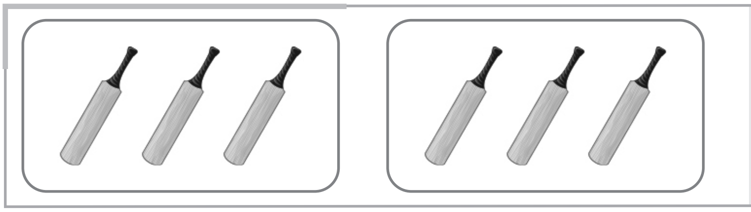
4 × 10 = ⑩ × 4 8 × 5 = ⑤ × 8 ⑨ × 8 = 8 × 9 3 × ⑦ = 7 × 3

Chapter 9: Division

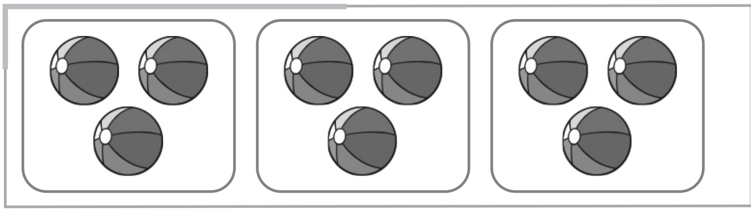
Exercise 9.1

Q.1. Write the division fact for each of the following.

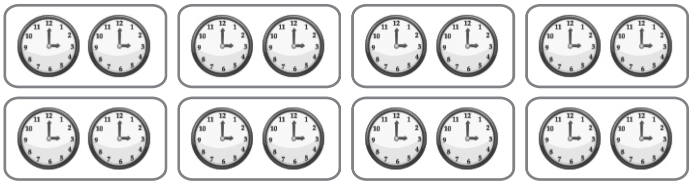
Sol.



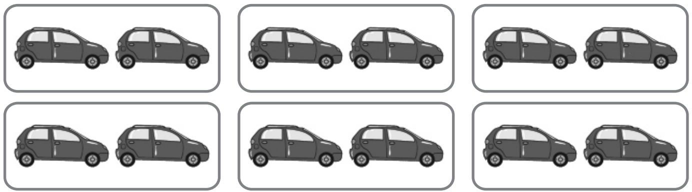
$\boxed{6} \div \boxed{2} = \boxed{3}$



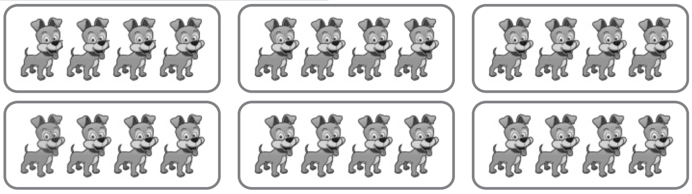
$\boxed{9} \div \boxed{3} = \boxed{3}$



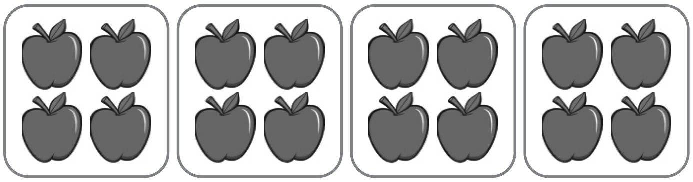
$\boxed{16} \div \boxed{8} = \boxed{2}$



$\boxed{12} \div \boxed{6} = \boxed{2}$



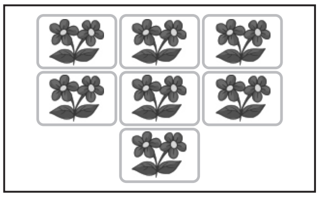
$\boxed{24} \div \boxed{6} = \boxed{4}$



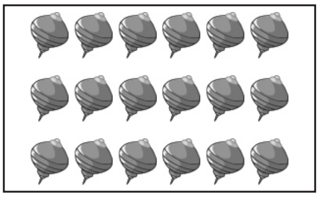
$\boxed{16} \div \boxed{4} = \boxed{4}$

Q.2. Make a group as shown and fill in the correct number.

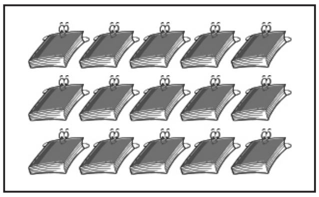
Sol.



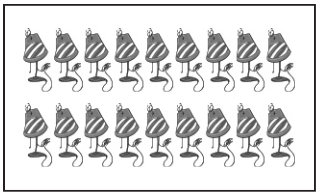
14 ÷ 7 = 2



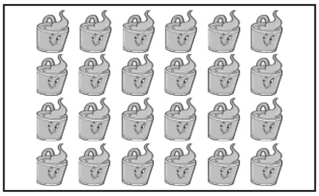
18 ÷ 3 = 6



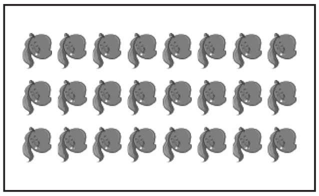
15 ÷ 3 = 5



18 ÷ 2 = 9



24 ÷ 4 = 6



24 ÷ 3 = 8

Exercise 9.2

Write two division facts for each of the following multiplication facts. One has been done for you.

Sol.

Multiplication Fact	Division Fact	
2 × 5 = 10	10 ÷ 2 = 5	10 ÷ 5 = 2
3 × 9 = 27	27 ÷ 3 = 9	27 ÷ 9 = 3
3 × 4 = 12	12 ÷ 3 = 4	12 ÷ 4 = 3
4 × 10 = 40	40 ÷ 4 = 10	40 ÷ 10 = 4
4 × 6 = 24	24 ÷ 4 = 6	24 ÷ 6 = 4
5 × 7 = 35	35 ÷ 5 = 7	35 ÷ 7 = 5
6 × 3 = 18	18 ÷ 6 = 3	18 ÷ 3 = 6
7 × 8 = 56	56 ÷ 7 = 8	56 ÷ 8 = 7
8 × 5 = 40	40 ÷ 8 = 5	40 ÷ 5 = 8
9 × 7 = 63	63 ÷ 9 = 7	63 ÷ 7 = 9
2 × 5 = 10	10 ÷ 2 = 5	10 ÷ 5 = 2
8 × 9 = 72	72 ÷ 8 = 9	72 ÷ 9 = 8

Exercise 9.3

Divide using multiplication tables.

Sol.

16 ÷ 2 = 8	18 ÷ 2 = 9	21 ÷ 3 = 7
15 ÷ 3 = 5	24 ÷ 3 = 8	12 ÷ 3 = 4
16 ÷ 4 = 4	24 ÷ 4 = 6	36 ÷ 4 = 9
50 ÷ 5 = 10	45 ÷ 5 = 9	35 ÷ 5 = 7
48 ÷ 6 = 8	36 ÷ 6 = 6	63 ÷ 7 = 9
49 ÷ 7 = 7	56 ÷ 7 = 8	70 ÷ 7 = 10
56 ÷ 8 = 7	32 ÷ 8 = 4	64 ÷ 8 = 8
72 ÷ 8 = 9	27 ÷ 9 = 3	54 ÷ 9 = 6
63 ÷ 9 = 7	81 ÷ 9 = 9	80 ÷ 10 = 8

Exercise 9.4

Solve the following word problems.

Q.1. 8 balls cost ₹ 56. How much does one ball cost, if each ball has the same cost?

Sol. ₹ 56 ÷ 8
= ₹ 7

Q.2. 81 pens are equally packed into 3 packets. How many pens are there in each packets?

Sol. 81 ÷ 3
= 27 pens

Q.3. 54 toffees are equally divided among 9 girls. How many toffees does each girl get?

Sol. 54 ÷ 9
= 6 toffees

Q.4. There are 40 bananas in 5 bunches. Each bunch contains the same number of bananas. How many bananas are there in each bunch?

Sol. 40 ÷ 5
= 8 bananas

Q.5. 7 days make a week. How many weeks are there in 56 days?

Sol. 56 ÷ 7
= 8 weeks

Chapter 10: Currency

Q.1. Answer the following :

(a) How many 5-paise coins make one rupee? **Sol.** ₹ 1 = 100 paise 100 ÷ 20 = 5

(b) How many 10-paise coins make one rupee ? **Sol.** 100 ÷ 10 = 10 coins

(c) How many 20-paise coins make one rupee? **Sol.** 100 ÷ 20 = 5 coins

(d) How many 25-paise coins make one rupee ? **Sol.** 100 ÷ 25 = 4 coins

(e) How many 50-rupee notes make 100 rupees ? **Sol.** 100 ÷ 50 = 2 notes

Q.2. Fill in the blanks :

(a) **Fifty** 2-rupee notes make 100 rupees.
(b) **Twenty** 5-rupee notes make 100 rupees.
(c) **Ten** 10-rupee notes make 100 rupees.
(d) For a 50-rupee note, we can exchange **five** 10-rupees notes.
(e) For a 500-rupee note, we can exchange **twenty-five** 20-rupees notes.

Exercise 10.2

Q.1 Add

Sol.

$$\begin{array}{rrrl} & \textcircled{1} & & \\ & 5 & 9 & \text{paise} \\ + & 3 & 7 & \text{paise} \\ \hline & 9 & 6 & \text{paise} \\ \hline \end{array} \qquad \begin{array}{rrrl} & \textcircled{1} & & \\ & 4 & 3 & \text{paise} \\ + & 3 & 8 & \text{paise} \\ \hline & 8 & 1 & \text{paise} \\ \hline \end{array} \qquad \begin{array}{rrrl} & \textcircled{1} & & \\ & 6 & 1 & \text{paise} \\ + & 2 & 9 & \text{paise} \\ \hline & 9 & 0 & \text{paise} \\ \hline \end{array} \qquad \begin{array}{rrrl} & \textcircled{1} & & \\ & 3 & 6 & \text{rupees} \\ + & 4 & 8 & \text{rupees} \\ \hline & 8 & 4 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rrrl} & \textcircled{1} & & \\ & 5 & 4 & \text{rupees} \\ + & 2 & 9 & \text{rupees} \\ \hline & 8 & 3 & \text{rupees} \\ \hline \end{array}$$

$$\begin{array}{rrrrl} & & \textcircled{1} & & \\ & & 6 & 8 & \text{rupees} \\ + & & 7 & 4 & \text{rupees} \\ \hline & 1 & 4 & 2 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rrrrl} & \textcircled{1} & \textcircled{1} & & \\ & 4 & 5 & 3 & \text{rupees} \\ & & 8 & 9 & \text{rupees} \\ & & + & 7 & \text{rupees} \\ \hline & 5 & 4 & 9 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rrrrl} & \textcircled{1} & \textcircled{2} & & \\ & 2 & 6 & 5 & \text{rupees} \\ & 1 & 4 & 7 & \text{rupees} \\ + & & 5 & 9 & \text{rupees} \\ \hline & 4 & 7 & 1 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rrrrl} & \textcircled{1} & \textcircled{2} & & \\ & 3 & 7 & 9 & \text{rupees} \\ & 2 & 1 & 6 & \text{rupees} \\ + & 1 & 9 & 7 & \text{rupees} \\ \hline & 7 & 9 & 2 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rrrrr} & & & \textcircled{1} & \\ & \text{₹} & & 8 & 9 \\ + & \text{₹} & & 7 & 2 \\ \hline & \text{₹} & 1 & 6 & 1 \\ \hline \end{array}$$

$$\begin{array}{rrrrr} & & & \textcircled{1} & \\ & & \text{₹} & 8 & 4 \\ + & & \text{₹} & 2 & 9 \\ \hline & \text{₹} & 1 & 1 & 3 \\ \hline \end{array} \qquad \begin{array}{rrrrl} & & \textcircled{1} & & \\ & & 6 & 7 & \text{P} \\ + & & 2 & 8 & \text{P} \\ \hline & & 9 & 5 & \text{P} \\ \hline \end{array} \qquad \begin{array}{rrrrl} & & \textcircled{1} & & \\ & & 7 & 2 & \text{P} \\ + & & 2 & 8 & \text{P} \\ \hline & 1 & 0 & 0 & \text{P} \\ \hline \end{array} \qquad \begin{array}{rrrrr} & & \textcircled{2} & \textcircled{2} & \\ & \text{₹} & 2 & 7 & 6 \\ & \text{₹} & 4 & 3 & 7 \\ + & \text{₹} & & 8 & 9 \\ \hline & \text{₹} & 8 & 0 & 2 \\ \hline \end{array} \qquad \begin{array}{rrrrrr} & & & \textcircled{2} & \textcircled{2} & \\ & & \text{₹} & 5 & 4 & 7 \\ & & \text{₹} & 2 & 5 & 6 \\ + & & \text{₹} & 4 & 8 & 5 \\ \hline & \text{₹} & 1 & 2 & 8 & 8 \\ \hline \end{array}$$

Q.2. Subtract :

Sol.

$$\begin{array}{rl} \overset{\textcircled{4}}{5}\ \overset{\textcircled{12}}{2} & \text{rupees} \\ -\ 3\ 8 & \text{rupees} \\ \hline 1\ 4 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rl} \overset{\textcircled{5}}{6}\ \overset{\textcircled{14}}{4} & \text{rupees} \\ -\ 2\ 9 & \text{rupees} \\ \hline 3\ 5 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rl} \overset{\textcircled{3}}{4}\ \overset{\textcircled{9}}{0}\ \overset{\textcircled{10}}{0} & \text{rupees} \\ -\ \ 6\ 4 & \text{rupees} \\ \hline 3\ 3\ 6 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rl} \overset{\textcircled{4}}{5}\ \overset{\overset{\textcircled{12}}{\textcircled{2}}}{3}\ \overset{\textcircled{10}}{0} & \text{rupees} \\ -\ 2\ 6\ 5 & \text{rupees} \\ \hline 2\ 6\ 5 & \text{rupees} \\ \hline \end{array}$$

$$\begin{array}{rl} \overset{\textcircled{1}}{2}\ \overset{\overset{\textcircled{12}}{\textcircled{2}}}{3}\ \overset{\textcircled{10}}{0} & \text{rupees} \\ -\ \ 9\ 3 & \text{rupees} \\ \hline 1\ 3\ 7 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rl} 3\ \overset{\textcircled{2}}{3}\ \overset{\textcircled{12}}{2} & \text{rupees} \\ -\ \ \ \ 9 & \text{rupees} \\ \hline 3\ 2\ 3 & \text{rupees} \\ \hline \end{array} \qquad \begin{array}{rl} \overset{\textcircled{8}}{9}\ \overset{\textcircled{14}}{4} & \text{paise} \\ -\ 3\ 6 & \text{paise} \\ \hline 5\ 8 & \text{paise} \\ \hline \end{array} \qquad \begin{array}{rl} \overset{\textcircled{7}}{8}\ \overset{\textcircled{13}}{3} & \text{paise} \\ -\ 6\ 9 & \text{paise} \\ \hline 1\ 4 & \text{paise} \\ \hline \end{array}$$

$$\begin{array}{r} ₹\ \overset{\textcircled{7}}{8}\ \overset{\textcircled{10}}{0} \\ -\ ₹\ 6\ 3 \\ \hline ₹\ 1\ 7 \\ \hline \end{array} \qquad \begin{array}{r} ₹\ \overset{\textcircled{1}}{2}\ \overset{\overset{\textcircled{10}}{\textcircled{0}}}{1}\ \overset{\textcircled{10}}{0} \\ -\ ₹\ \ \ 7\ 6 \\ \hline ₹\ 1\ 3\ 4 \\ \hline \end{array} \qquad \begin{array}{r} ₹\ \overset{\textcircled{4}}{5}\ \overset{\overset{\textcircled{9}}{\textcircled{10}}}{0}\ \overset{\textcircled{10}}{0} \\ -\ ₹\ 2\ 3\ 5 \\ \hline ₹\ 2\ 6\ 5 \\ \hline \end{array} \qquad \begin{array}{r} \overset{\textcircled{7}}{8}\ \overset{\textcircled{10}}{0}\ P \\ -\ 3\ 3\ P \\ \hline 4\ 7\ P \\ \hline \end{array}$$

$$\begin{array}{r} \overset{\textcircled{7}}{8}\ \overset{\textcircled{12}}{2}\ P \\ -\ 3\ 7\ P \\ \hline 4\ 5\ P \\ \hline \end{array} \qquad \begin{array}{r} \overset{\textcircled{7}}{8}\ \overset{\textcircled{13}}{3}\ P \\ -\ 4\ 8\ P \\ \hline 3\ 5\ P \\ \hline \end{array} \qquad \begin{array}{r} \overset{\textcircled{8}}{9}\ \overset{\textcircled{10}}{0}\ P \\ -\ 6\ 7\ P \\ \hline 2\ 3\ P \\ \hline \end{array}$$

Exercise 10.3

Subtract :

Q.1. Shilpi paid 350 paise for an eraser and 542 paise for a toffee. How much money did she pay altogether?

Sol.

$$\begin{array}{r} 3\ 5\ 0\ P \\ +\ 5\ 4\ 2\ P \\ \hline 8\ 9\ 2\ P \\ \hline \end{array}$$

Q.2. On Diwali, Prachi spent ₹ 283 on sweets, ₹ 58 on crackers and ₹ 62 on candles. How much money did she spend on Diwali?

Sol.

$$\begin{array}{r} ₹\ \overset{\textcircled{2}}{2}\ \overset{\textcircled{1}}{8}\ 3 \\ ₹\ \ \ 5\ 8 \\ +\ ₹\ \ \ 6\ 2 \\ \hline ₹\ 4\ 0\ 3 \\ \hline \end{array}$$

Q.3. Peeter has ₹ 86. His sister Mary has ₹ 61 more than Peeter. How much money does Mary have? How much money do they have altogether.

Sol.

$$\begin{array}{rr} & ₹\ \ \ 8\ 6 \\ & +\ ₹\ \ \ 6\ 1 \\ \cline{2-2} \text{Peeter's sister has} = & ₹\ 1\ 4\ 7 \\ \cline{2-2} & ₹\ \overset{\textcircled{1}}{1}\ \overset{\textcircled{1}}{4}\ 7 \\ & +\ ₹\ \ \ 8\ 6 \\ \cline{2-2} \text{Both have} = & ₹\ 2\ 3\ 3 \\ \cline{2-2} \end{array}$$

Q.4. Komal bought a pencil for 75 paise. She gave a 1-rupee note to the shopkeeper. How many paise did she get back?

Sol. 1 Rupee = 100 P

$$\begin{array}{r} \overset{\textcircled{0}}{1}\ \overset{\overset{\textcircled{9}}{\textcircled{10}}}{0}\ \overset{\textcircled{10}}{0}\ P \\ -\ 7\ 5\ P \\ \hline 2\ 5\ P \\ \hline \end{array}$$

Q.5. Monika has 60 rupees. She bought an inkpot for 27 rupees. How much money is left with her?

Sol.

$$\begin{array}{rrl} \overset{⑤}{6} & \overset{⑩}{0} & \text{rupees} \\ -\ 2 & 7 & \text{rupees} \\ \hline 3 & 3 & \text{rupees} \\ \hline \end{array}$$

Q.6. Kumkum's mother have ₹ 530 in her purse. She purchased fruits for ₹ 286. How many rupees were left with her?

Sol.

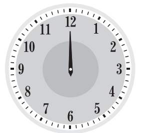
$$\begin{array}{rrrr} & \overset{④}{} & \overset{⑫}{\overset{②}{}} & \overset{⑩}{} \\ ₹ & 5 & 3 & 0 \\ -₹ & 2 & 8 & 6 \\ \hline ₹ & 2 & 4 & 4 \\ \hline \end{array}$$

Chapter 11: Time

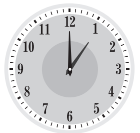
Exercise 11.1

Q.1. Look at the clocks and write the correct time shown by it in two different ways.

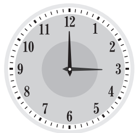
Sol.


12:00

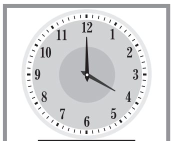
12 o'clock


1:00

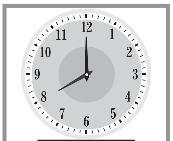
1 o'clock


3:00

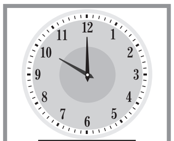
3 o'clock


4:00

4 o'clock


8:00

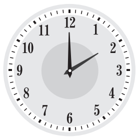
8 o'clock

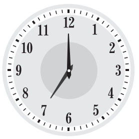

10:00

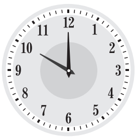
10 o'clock

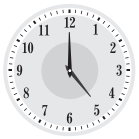
Q.2. Draw the hour-hand to show the given time.

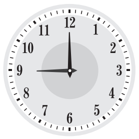
Sol.

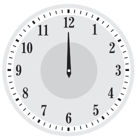

2 o'clock


7 o'clock


10 o'clock


5 o'clock

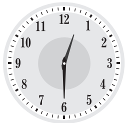

9 o'clock


12 o'clock

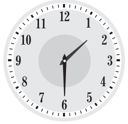
Exercise 11.2

Q.1. Look at the clocks and write the correct time shown by it in two different ways.

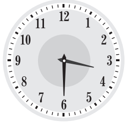
Sol.


12:30

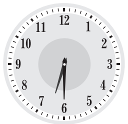
Half past 12


1:30

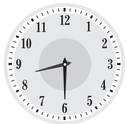
Half past 1


3:30

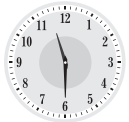
Half past 3


6:30

Half past 6


8:30

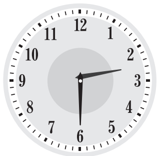
Half past 8


11:30

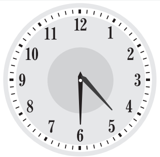
Half past 11

Q.2. Draw the hands of each of the following clocks to shown the given time.

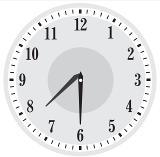
Sol.


2:30

Half past 2


4:30

Half past 4

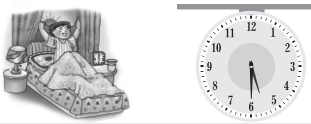

7:30

30 minutes past 7

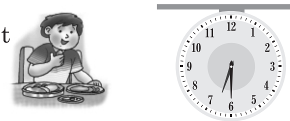
Daily Routine

Below is given the daily routine of a boy.
Fill in the correct time as shown.

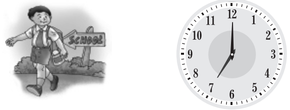
I get up
at **Half past 5**.



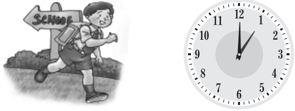
I take my breakfast
at **Half past 6**.



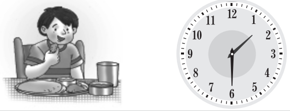
I go to school
at **7 o’Clock**.



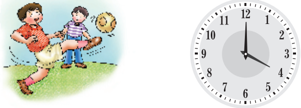
I come home back
from school
at **1 o’Clock**.



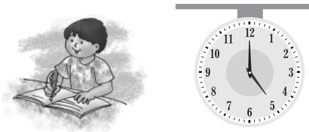
I take my lunch
at **Half past 1**.



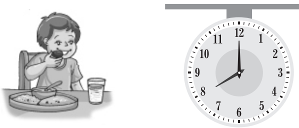
I start to play
at **4 o’Clock**.



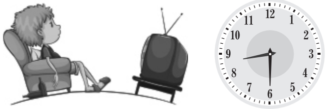
I start to do my
homework
at **5 o’Clock**.



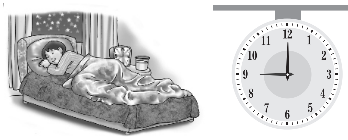
I take my dinner
at **8 o’Clock**.



I watch TV
at **Half past ⑧**.



I go to bed
at **9 0’Clock.**



Chapter 12: Calendar

Exercise 12.1

Q.1. Answer the following questions.

Sol.

(a)	Which day comes before Sunday?	Saturday
(b)	Which day comes after Wednesday?	Thursday
(c)	Which day comes before Friday?	Thursday
(d)	Which day comes after Sunday?	Monday
(e)	Which is the third day of the week?	Wednesday
(f)	Which is the fifth day of the week?	Friday
(g)	Which day comes between Tuesday and Thurdsay ?	Wednesday
(h)	If today is Thursday, what day was it yesterday?	Wednesday
(i)	If today is Saturday, what day will it be tomorrow?	Sunday

(j)	If it was Monday yesterday, what day is it today?	Tuesday
(k)	If it was Saturday yesterday, what day will it be tomorrow ?	Monday
(l)	If it will be Wednesday tomorrow, what day is it today?	Tuesday

Q.2. Answer the following word problems :

(a) Neeru did not go to school from Sunday to Wednesday. For how many days was she absent?

Sol. Monday
Tuesday
Wednesday
3 days

(b) The school holidays started on Tuesday and the school opened again on Saturday. How many holidays did the children get?

Sol. Tuesday to
Friday
4 days

(c) The Diwali Mela started from Thursday to Tuesday. For how many days did the Diwali Mela continue?

Sol. Thursday-Tuesday
6 days

(d) Kamal fell ill on Friday and his illness continued till Thursday. For many days was Kamal ill?

Sol. Friday to
Thursday
7 days

(e) Versa went to her aunt's house on Monday and she returned home on Saturday morning. For how many days did she stay with her aunt?

Sol. Monday to Friday
5 days

Exercise 12.2

Q.1. Fill in the blanks.

Sol. (a) There are $\boxed{12}$ months in a year.

(b) $\boxed{\text{May}}$ is the fifth month of a year.

(c) July is the $\boxed{\text{Seventh}}$ month of a year.

(d) The eleventh month of year is $\boxed{\text{November}}$.

(e) The number of months having 30 days is $\boxed{4}$.

(f) The number of months having 31 days is $\boxed{7}$.

(g) Republic Day falls in the month of $\boxed{\text{January}}$.

(h) Independence Day falls in the months of $\boxed{\text{August}}$.

(i) Children's Day falls in the month of $\boxed{\text{November}}$.

(j) Teacher's Day falls in the month of $\boxed{\text{September}}$.

Q.2. Answer the following questions :

(a) Write the name of the month, having 28 or 29 days. $\boxed{\text{February}}$

(b) Write the names of the months, each having 30 days. $\boxed{\text{April, June, September, November}}$

(c) Which month comes before April? $\boxed{\text{March}}$

(d) Which month comes before July? June

(e) Which month comes before October? September

(f) Which month comes after March? April

(g) Which month comes after September? October

(h) Which month comes after June? July

(i) Which month comes in between March and May? April

(j) Which month comes in between August and October? September

Exercise 12.3

Look at the calendar for the year 20XX given on the previous page and answer the following questions.

Q.1. Write the date of your birthday. Do yourself

Q.2 On which day does your birthday fall in the year 20XX? Do yourself

Q.3. Write each of the following dates in short and find out the day on which it falls.

(a) 23rd January, 20XX	**23.1.20XX**	**Monday**
(b) 6th March, 20XX	**6.3.20XX**	**Wednesday**
(c) 28th May, 20XX	**28.5.20XX**	**Tuesday**
(d) 11th November, 20XX	**26.9.20XX**	**Monday**
(e) 26th September, 20XX	**26.9.20XX**	**Thursday**

Q.4. On which day does the year 20XX begin? **Tuesday**

Q.5. How many days are there in February, 20XX? **28**

Q.6. How many Sundays are there in May, 20XX? **4**

Q.7. How many Tuesdays are there in October, 20XX? **5**

Q.8. How many months are there in 20XX that have five Sunday? **4**

Q.9. On which day does Independence Day fall in 20XX? **Thursday**

Q.10. Every year, 15th August is celebrated as Independence Day. On which date, does Republic Day fall in 20XX? **26th January**

Chapter 13: Measurement of Length

Exercise 13.1

Add or subtract.

Sol.

$$\begin{array}{rrrr} & \textcircled{1} & & \\ & 8 & 4 & m \\ + & 6 & 6 & m \\ \hline 1 & 5 & 0 & m \\ \hline \end{array} \qquad \begin{array}{rrrr} & \textcircled{1} & & \\ & 5 & 6 & m \\ + & 3 & 7 & m \\ \hline & 9 & 3 & m \\ \hline \end{array} \qquad \begin{array}{rrrrr} & \textcircled{1} & \textcircled{1} & & \\ & 3 & 4 & 6 & m \\ + & 3 & 5 & 4 & m \\ \hline & 7 & 0 & 0 & m \\ \hline \end{array} \qquad \begin{array}{rrrr} \textcircled{1} & \textcircled{1} & & \\ 8 & 9 & 4 & m \\ + & 8 & 9 & m \\ \hline 9 & 8 & 3 & m \\ \hline \end{array} \qquad \begin{array}{rrrr} & \textcircled{5} & \textcircled{13} & \\ & 6 & 3 & m \\ - & 3 & 6 & m \\ \hline & 2 & 7 & m \\ \hline \end{array}$$

$$\begin{array}{rrrr} & \textcircled{7} & \textcircled{15} & \\ & 8 & 5 & m \\ - & 2 & 6 & m \\ \hline & 5 & 9 & m \\ \hline \end{array} \qquad \begin{array}{rrrrr} & & \textcircled{11} & & \\ \textcircled{10} & \textcircled{3} & \textcircled{1} & \textcircled{10} & \\ & 4 & 2 & 0 & m \\ - & 1 & 8 & 9 & m \\ \hline & 2 & 3 & 1 & m \\ \hline \end{array} \qquad \begin{array}{rrrrr} & & \textcircled{9} & & \\ & \textcircled{4} & \textcircled{10} & \textcircled{10} & \\ & 5 & 0 & 0 & m \\ - & 2 & 4 & 4 & m \\ \hline & 2 & 5 & 6 & m \\ \hline \end{array} \qquad \begin{array}{rrrr} & \textcircled{2} & & \\ & 4 & 6 & m \\ & 2 & 9 & m \\ + & 5 & 5 & m \\ \hline 1 & 3 & 0 & m \\ \hline \end{array} \qquad \begin{array}{rrrrr} & \textcircled{1} & \textcircled{1} & & \\ & 1 & 3 & 6 & m \\ & 2 & 4 & 7 & m \\ + & 3 & 8 & 5 & m \\ \hline & 7 & 6 & 8 & m \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{1}\ \textcircled{2}\phantom{5\text{ m}} \\ 3\ 7\ 5\text{ m} \\ 8\ 9\text{ m} \\ +\quad 8\text{ m} \\ \hline 4\ 7\ 2\text{ m} \\ \hline \end{array} \qquad \begin{array}{r} \textcircled{1}\phantom{4\text{ m}} \\ 6\ 4\text{ m} \\ 2\ 8\text{ m} \\ +\quad 4\text{ m} \\ \hline 9\ 6\text{ m} \\ \hline \end{array} \qquad \begin{array}{r} \textcircled{4}\,\textcircled{18}\phantom{\text{ m}} \\ 5\ 8\text{ m} \\ -\ 3\ 9\text{ m} \\ \hline 1\ 9\text{ m} \\ \hline \end{array} \qquad \begin{array}{r} \textcircled{8}\ \textcircled{12}\phantom{\text{ cm}} \\ 9\ 2\text{ cm} \\ -\ 2\ 9\text{ cm} \\ \hline 6\ 3\text{ cm} \\ \hline \end{array} \qquad \begin{array}{r} \textcircled{12}\phantom{\textcircled{18}\text{ cm}} \\ \textcircled{1}\,\textcircled{2}\,\textcircled{18}\phantom{\text{ cm}} \\ 2\ 3\ 8\text{ cm} \\ -\ 1\ 8\ 9\text{ cm} \\ \hline 4\ 9\text{ cm} \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{10}\phantom{\textcircled{16}\text{ cm}} \\ \textcircled{2}\ \textcircled{0}\ \textcircled{16}\phantom{\text{ cm}} \\ 3\ 1\ 6\text{ cm} \\ -\ 1\ 5\ 7\text{ cm} \\ \hline 1\ 5\ 9\text{ cm} \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{1} & \textcircled{1} \\ 4\ 3 & 3\ 8 \\ +\ 2\ 9 & 5\ 9 \\ \hline 7\ 2 & 9\ 7 \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{1}\textcircled{1} & \textcircled{1} \\ 2\ 3\ 7 & 4\ 4 \\ +\ 6\ 8 & 4\ 8 \\ \hline 3\ 0\ 5 & 9\ 2 \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{1}\,\textcircled{2} & \textcircled{1} \\ 3\ 4\ 8 & 5\ 4 \\ 4\ 7 & 2\ 1 \\ +\ 4\ 6\ 7 & 1\ 8 \\ \hline 8\ 6\ 2 & 9\ 3 \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{1}\textcircled{1} & \textcircled{2} \\ 5\ 6\ 3 & 5\ 3 \\ 3\ 8 & 2\ 9 \\ +\quad 6 & 8 \\ \hline 6\ 0\ 7 & 9\ 0 \\ \hline \end{array}$$

$$\begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{5}\textcircled{11} & \textcircled{3}\textcircled{13} \\ 6\ 1 & 4\ 3 \\ -\ 1\ 9 & 2\ 7 \\ \hline 4\ 2 & 1\ 6 \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{6}\textcircled{10} & \textcircled{5}\textcircled{10} \\ 7\ 0 & 6\ 0 \\ -\ 4\ 6 & 5\ 4 \\ \hline 2\ 4 & 0\ 6 \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{7}\textcircled{12} & \textcircled{2}\textcircled{18} \\ 8\ 2 & 3\ 8 \\ -\ 3\ 7 & 2\ 9 \\ \hline 4\ 5 & 0\ 9 \\ \hline \end{array} \qquad \begin{array}{rr} \text{m} & \text{cm} \\ \textcircled{9}\phantom{\textcircled{12}} & \\ \textcircled{0}\textcircled{10}\textcircled{12} & \textcircled{4}\textcircled{16} \\ 1\ 0\ 3 & 5\ 6 \\ -\ 5\ 8 & 2\ 8 \\ \hline 0\ 4\ 5 & 2\ 8 \\ \hline \end{array}$$

Exercise 13.2

Q.1. A rope 48 metres long is cut into two pieces. The length of one piece is 39 metres. What is the length of the other piece?

Sol.
$$\begin{array}{r} \textcircled{3}\,\textcircled{18}\phantom{\text{m}} \\ 4\ 8\,\text{m} \\ -\ 3\ 9\,\text{m} \\ \hline 0\ 9\,\text{m} \\ \hline \end{array}$$

Q.2. Sweta bought three pieces of ribbon. One of them was 28 cm long, the second 39 cm long and the third 24 cm long. What length of the ribbon did she buy altogether?

Sol.
$$\begin{array}{r} \textcircled{2}\phantom{8\,\text{cm}} \\ 2\ 8\,\text{cm} \\ 3\ 9\,\text{cm} \\ +\ 2\ 4\,\text{cm} \\ \hline 9\ 1\,\text{cm} \\ \hline \end{array}$$

Q.3. A cloth seller had 49 m 60 cm of cloth. He sold 28 m 35 cm from it. How much cloth was left ?

Sol.
$$\begin{array}{rr} & \textcircled{5}\textcircled{10}\phantom{\text{ cm}} \\ 4\,9\text{ m} & 6\,0\text{ cm} \\ -\ 2\,8\text{ m} & 3\,5\text{ cm} \\ \hline 2\,1\text{ m} & 2\,5\text{ cm} \\ \hline \end{array}$$

Q.4. A piece of rope is cut into two pieces. One piece is 13 m 56 cm long. The other piece is 23 m 28 cm long. What was the length of the original piece?

Sol.
$$\begin{array}{rr} & \textcircled{1}\phantom{6\text{ cm}} \\ 1\,3\text{ m} & 5\,6\text{ cm} \\ +\ 2\,3\text{ m} & 2\,8\text{ cm} \\ \hline 3\,6\text{ m} & 8\,4\text{ cm} \\ \hline \end{array}$$

Q.5. Sonia has 37 m 66 cm long rope and Ananya has 32 m 76 cm long rope. Who has the longer rope and by how much ?

Sol.
$$\begin{array}{rr} \textcircled{6}\phantom{\text{ m}} & \textcircled{16}\phantom{\text{ cm}} \\ 3\,7\text{ m} & 6\,6\text{ cm} \\ -\ 3\,2\text{ m} & 7\,6\text{ cm} \\ \hline 4\text{ m} & 9\,0\text{ cm} \\ \hline \end{array}$$

Q.6. A piece of cloth measures 82 m 25 cm. A piece measuring 37 m 46 cm is cut from it. What length of the cloth is left?

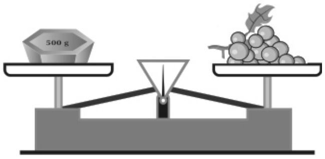
Sol.
$$\begin{array}{rr} \textcircled{7}\textcircled{11}\phantom{\text{ m}} & \textcircled{11}\phantom{5\text{ cm}} \\ 8\,2\text{ m} & 2\,5\text{ cm} \\ -\ 3\,7\text{ m} & 4\,6\text{ cm} \\ \hline 4\,4\text{ m} & 7\,9\text{ cm} \\ \hline \end{array}$$

Chapter 14: Measurement of Weight

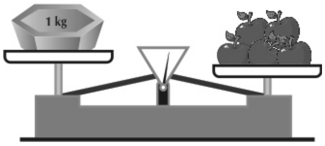
Exercise 14.1

Q.1 Fill in the placeholders with less than, more than or equal to as that case may be.

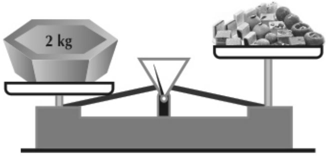
Sol.



The weight of grapes is $\boxed{\text{equal to}}$ 500 grams.



The weight of apple is $\boxed{\text{more than}}$ 1 kilogram.



The weight of sweets is $\boxed{\text{less than}}$ 2 kilogram.

Exercise 14.2

Q.1. Add or Subtract :

Sol.

①
6 7 kg
+ 2 9 kg
9 6 kg

① ①
1 4 6 kg
+ 7 8 9 kg
9 3 5 kg

① ①
5 6 8 kg
+ 3 7 4 kg
9 4 2 kg

⑥ ⑫
7 2 kg
– 3 9 kg
3 3 kg

⑨
② ⑩ ⑫
3 0 2 kg
– 6 5 kg
2 3 7 kg

⑪
⑤ ① ⑭
6 2 4 kg
– 4 6 7 kg
1 5 7 kg

9 0 kg
+ 7 5 kg
1 6 5 kg

⑬
⑥ ③ ⑯
7 4 6 g
– 2 7 8 g
4 6 8 g

⑭
⑦ ④ ⑬
8 5 3 g
– 9 7 g
7 5 6 g

	kg	g
	①	①
	5	6 4 0
+	9	3 8 0
	1 5	0 2 0

	kg	g
	①	① ①
	4 5	3 7 6
+	8	3 6 5
	5 3	7 4 1

	kg	g
	①	
	3 3 5	2 3 0
+	5 2 8	6 5 0
	8 6 3	8 8 0

⑫
⑤ ② ⑩
6 3 0 g
– 3 7 4 g
2 5 6 g

⑨
⑦ ⑩ ⑩
8 0 0 g
– 2 3 5 g
5 6 5 g

⑫
① ② ⑩
2 3 0 g
– 8 6 g
1 4 4 g

	kg	g
		⑨
		② ⑩ ⑩
	8	3 0 0
–	4	1 2 5
	4	1 7 5

	kg	g
	⑨	⑪ ⑪
	⑧ ⑩	① ① ⑮
	9 0	2 2 5
–	7 9	2 8 7
	1 0	9 3 8

	kg	g
	⑪	⑮
	③ ① ⑮	③ ⑤ ⑩
	4 2 5	4 6 0
–	6 8	2 7 6
	3 5 7	1 8 4

	kg	g
		①
	1 0 4	3 1 5
+	6 5	1 7 6
	1 6 9	4 9 1

	kg	g
		①
	7 0	6 5 0
+	8	8 0
	7 8	7 3 0

	kg	g
		①
	2 3 0	1 5 0
+	4 5	7 5
	2 7 5	2 2 5

	kg	g
	① ① ①	① ①
	1 3 4	5 2 5
	2 5 6	1 2 9
+	3 1 6	6 6 1
	7 0 7	3 1 5

	kg	g
	⑪	
	⑦ ① ⑱	⑧ ⑪
	8 2 8	9 9 1
–	2 6 9	6 8 7
	5 5 9	3 0 4

	kg	g
	② ①	①
	5 2 5	0 7 6
	1 2 9	4 0 2
+	3 1 8	9 3 0
	9 7 3	4 0 8

Exercise 14.3

Q.1. Shanu's weight is 85 kg 320 g. He reduced his weight and lost 8 kg 275 g. How much does he weight now?

Sol.

	kg	g
		⑪
	⑦ ⑮	② ① ⑩
	8 5	3 2 0
–	8	2 7 5
	7 7	0 4 5

Q.2. A shopkeeper had 800 kg of Rice. Out of it, he sold 588 kg. How much of rice was left with the shopkeeper?

Sol.

$$\begin{array}{r} \text{⑨}\quad\ \\ \text{⑦⑩⑩}\quad \\ 8\ 0\ 0\ \text{kg} \\ -\ 5\ 8\ 8\ \text{kg} \\ \hline 2\ 1\ 2\ \text{kg} \end{array}$$

Q.3. On first day of a month Sunita Jaiswal purchased 78 kg 800 g of flour. Out of it, 48 kg 538 g was used during the month. How much flour was left?

Sol.

$$\begin{array}{rr} \text{kg} & \text{g} \\ & \text{⑨}\ \ \\ & \text{⑦⑩⑩} \\ 78 & 8\ 0\ 0 \\ -48 & 5\ 3\ 8 \\ \hline 30 & 2\ 6\ 2 \end{array}$$

Q.4. Lalit purchased 18 kg 285 g of sugar from one shop and 39 kg 460 g from another shop. What is the total quantity of sugar purchased by him?

Sol.

$$\begin{array}{rr} \text{kg} & \text{g} \\ \text{①}\ \ & \text{①}\quad\ \ \\ 18 & 2\ 8\ 5 \\ +39 & 4\ 6\ 0 \\ \hline 57 & 7\ 4\ 5 \end{array}$$

Q.5. A coolie carries two boxes. One box weighs 32 kg and the other weighs 59 kg. How much weight does the coolie carry?

Sol.

$$\begin{array}{r} \text{①}\quad\quad \\ 3\ 2\ \text{kg} \\ +\ 5\ 9\ \text{kg} \\ \hline 9\ 1\ \text{kg} \end{array}$$

Chapter 15: Measurement of Capacity

Exercise 15.1

Add or subtract :

Sol.

$$\begin{array}{r} \text{①}\quad\quad \\ 6\ 4\ \text{L} \\ +\ 2\ 8\ \text{L} \\ \hline 9\ 2\ \text{L} \end{array} \qquad \begin{array}{r} \text{①}\quad\quad \\ 8\ 5\ \text{L} \\ +\ 9\ 8\ \text{L} \\ \hline 18\ 3\ \text{L} \end{array} \qquad \begin{array}{r} \text{①①}\quad\quad \\ 1\ 9\ 6\ \text{L} \\ +\ 2\ 0\ 7\ \text{L} \\ \hline 4\ 0\ 3\ \text{L} \end{array} \qquad \begin{array}{r} \text{⑥⑭}\quad \\ 7\ 4\ \text{L} \\ -\ 3\ 6\ \text{L} \\ \hline 3\ 8\ \text{L} \end{array} \qquad \begin{array}{r} \text{⑦⑬}\quad \\ 8\ 3\ \text{L} \\ -\ 2\ 9\ \text{L} \\ \hline 5\ 4\ \text{L} \end{array}$$

$$\begin{array}{r} \text{⑫}\quad\quad \\ \text{③②⑯}\quad \\ 4\ 3\ 6\ \text{L} \\ -\ 2\ 5\ 8\ \text{L} \\ \hline 1\ 7\ 8\ \text{L} \end{array} \qquad \begin{array}{r} \text{⑬}\quad\quad \\ \text{⑤③⑮}\quad \\ 6\ 4\ 5\ \text{L} \\ -\ 3\ 7\ 8\ \text{L} \\ \hline 2\ 6\ 7\ \text{L} \end{array} \qquad \begin{array}{r} \text{②}\quad\quad \\ 5\ 6\ \text{L} \\ 6\ 9\ \text{L} \\ +\ 4\ 7\ \text{L} \\ \hline 1\ 7\ 2\ \text{L} \end{array} \qquad \begin{array}{r} \text{①①}\quad\quad \\ 5\ 3\ 2\ \text{L} \\ 7\ 9\ \text{L} \\ +\quad 8\ \text{L} \\ \hline 6\ 1\ 9\ \text{L} \end{array} \qquad \begin{array}{r} \text{②②}\quad\quad \\ 5\ 7\ 8\ \text{L} \\ 1\ 8\ 4\ \text{L} \\ +\ 2\ 3\ 9\ \text{L} \\ \hline 1\ 0\ 0\ 1\ \text{L} \end{array}$$

$$\begin{array}{rr} \text{L} & \text{mL} \\ \text{①}\ \ & \text{①①}\quad \\ 36 & 2\ 8\ 4 \\ +\ 29 & 6\ 7\ 8 \\ \hline 65 & 9\ 6\ 2 \end{array} \qquad \begin{array}{rr} \text{L} & \text{mL} \\ \text{①①}\ \ & \text{①①}\quad \\ 155 & 6\ 3\ 2 \\ +\ 77 & 8\ 8 \\ \hline 232 & 7\ 2\ 0 \end{array} \qquad \begin{array}{rr} \text{L} & \text{mL} \\ \text{⑩}\quad & \\ \text{②⓪⑮} & \text{③⓪⑱} \\ 315 & 4\ 1\ 8 \\ -\ 76 & 2\ 8\ 9 \\ \hline 239 & 1\ 2\ 9 \end{array} \qquad \begin{array}{rr} \text{L} & \text{mL} \\ \text{⑫}\quad & \text{⑯}\quad \\ \text{①②⑭} & \text{②⑥⑩} \\ 234 & 3\ 7\ 0 \\ -\ 165 & 1\ 8\ 5 \\ \hline 069 & 1\ 8\ 5 \end{array}$$

$$\begin{array}{rr} \text{L} & \text{mL} \\ \text{①①}\ \ & \text{①①}\quad \\ 369 & 2\ 8\ 4 \\ +174 & 5\ 3\ 8 \\ \hline 543 & 8\ 2\ 2 \end{array} \qquad \begin{array}{rr} \text{L} & \text{mL} \\ \text{①①}\ \ & \text{①①}\quad \\ 546 & 7\ 6\ 8 \\ +467 & 1\ 7\ 6 \\ \hline 1013 & 9\ 4\ 4 \end{array} \qquad \begin{array}{rr} \text{L} & \text{mL} \\ \text{⑩}\quad & \text{⑨}\quad \\ \text{③⓪⑩} & \text{①⑩⑮} \\ 410 & 2\ 0\ 5 \\ -135 & 1\ 6\ 6 \\ \hline 275 & 0\ 3\ 9 \end{array} \qquad \begin{array}{rr} \text{L} & \text{mL} \\ \text{⑰}\quad & \text{⑩}\quad \\ \text{①⑦⑰} & \text{②⓪⑭} \\ 287 & 3\ 1\ 4 \\ -198 & 2\ 7\ 5 \\ \hline 089 & 0\ 3\ 9 \end{array}$$

Exercise 15.2

Solve the following word problems :

Q.1. The petrol tank of a car had 32 L 500 mL of petrol. It consumed 16 L 326 mL in a trip. How much petrol was left in the tank after the trip?

Sol.

$$\begin{array}{rcccccc} & \text{L} & & & & \text{mL} & \\ & & & & & \textcircled{9} & \\ & \textcircled{2} & \textcircled{12} & & \textcircled{4} & \textcircled{10} & \textcircled{10} \\ & 3 & 2 & & 5 & 0 & 0 \\ - & 1 & 6 & & 3 & 2 & 6 \\ \hline & 1 & 6 & & 1 & 7 & 4 \\ \hline \end{array}$$

Q.2. The capacity of a flask is 1 L 400 mL. The capacity of another flask 1 L 125 mL. What is the difference between the capacities of the two flasks?

Sol.

$$\begin{array}{rccccc} & \text{L} & & & \text{mL} & \\ & & & & \textcircled{9} & \\ & & & \textcircled{3} & \textcircled{10} & \textcircled{10} \\ & 1 & & 4 & 0 & 0 \\ - & 1 & & 1 & 2 & 5 \\ \hline & 0 & & 2 & 7 & 5 \\ \hline \end{array}$$

Q.3. The tank of a car is filled with 26 L 385 mL of diesel. For completely filling the tank, 8 L 486 mL more diesel is required. What is the capacity of the tank of the car?

Sol.

$$\begin{array}{rcccccc} & \text{L} & & & & \text{mL} & \\ & \textcircled{1} & & & \textcircled{1} & \textcircled{1} & \\ & 2 & 6 & & 3 & 8 & 5 \\ + & & 8 & & 4 & 8 & 6 \\ \hline & 3 & 4 & & 8 & 7 & 1 \\ \hline \end{array}$$

Q.4. A shop owner purchased 28 L 360 mL of milk. Out of it 9 L 268 mL of milk was consumed. How much milk is left with him?

Sol.

$$\begin{array}{rcccccc} & \text{L} & & & & \text{mL} & \\ & & & & & \textcircled{15} & \\ & \textcircled{1} & \textcircled{18} & & \textcircled{2} & \textcircled{5} & \textcircled{10} \\ & 2 & 8 & & 3 & 6 & 0 \\ - & & 9 & & 2 & 6 & 8 \\ \hline & 1 & 9 & & 0 & 9 & 2 \\ \hline \end{array}$$

Q.5. The capacity of a water tank is 690 L, 279 L of water is pumped into it. How much more water does it require to fill it?

Sol.

$$\begin{array}{rcccc} & & \textcircled{8} & \textcircled{10} & \\ & 6 & 9 & 0 & \text{L} \\ - & 2 & 7 & 9 & \text{L} \\ \hline & 4 & 1 & 1 & \text{L} \\ \hline \end{array}$$

Q.6. `Ritu Solanki bought a 875 mL bottle of tonic. After 3 weeks, 479 mL was left. How much tonic had she used?

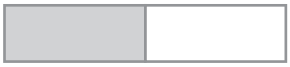
Sol.

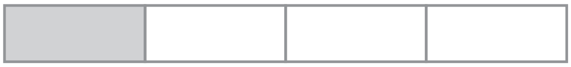
$$\begin{array}{rcccc} & & \textcircled{16} & & \\ & \textcircled{7} & \textcircled{6} & \textcircled{15} & \\ & 8 & 7 & 5 & \text{mL} \\ - & 4 & 7 & 9 & \text{mL} \\ \hline & 3 & 9 & 6 & \text{mL} \\ \hline \end{array}$$

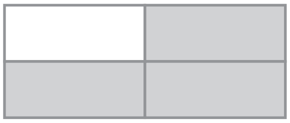
Chapter 16: Concept of Fractions (Halves and Quarters)

Exercise 16.1

Q.1. Write the fraction for the shaded part :

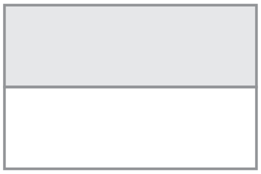
(a)  1/2

(b)  1/4

(c)  3/4

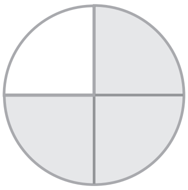
Q.2. Colour the part of each figure to represent the fraction given below :

(a)



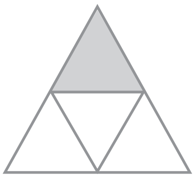
$\frac{1}{2}$

(b)



$\frac{3}{4}$

(c)



$\frac{1}{4}$

Chapter 17 Data Handling

Exercise 17.1

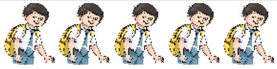
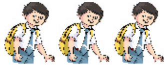
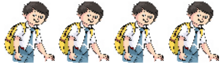
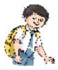
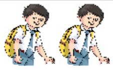
Q.1. Aditya decided to conduct a study on cake sold in nearby shop. The owner of the shop let him take down the details of the different flavour sold over two weeks. This was what he observed.

Cake With Flavour	Week 1	Week 2
Butterscotch cake	41	57
Strawberry cake	72	60
Pineapple Cake	37	39
Fruit Cake	53	46
Coffee Cake	30	50
Vanilla Cake	41	28

Answer the following questions :

(a) Which flavour was most popular in week 1?	**Strawberry cake**
(b) Which flavour had the maximum sales in week 2?	**Strawberry cake**
(c) Which flavour had the minimum sales in week 1?	**Coffee cake**
(d) Which flavour was least popular in week 2?	**Vanilla cake**
(e) How many more butterscotch cakes were sold in Weeks 2?	**57 – 41 = 16**

Q.2. Ayush interviews his classmates and made a list on how each of them comes to school. Here is what he found.

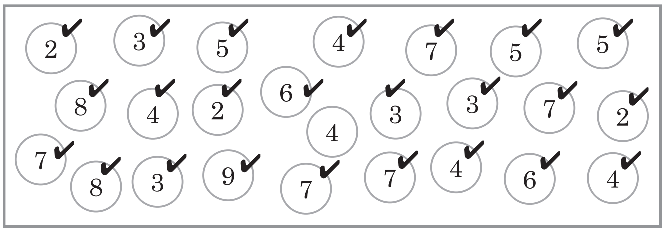
Bus	
Cycle	
Car	
On foot	
Rickshaw	

Answer the following questions :

(a) What are the different way of travelling?	**Bus, Cycle, Car, On foot, Rickshaw**
(b) Which mode is most preferred by students?	**Bus**
(c) How may students come to school by rickshaw?	**2**
(d) How many students are there in this class?	**15**

Q.3. Identify, count and write numbers written in figure :

Sol.



Fill in the table by putting correct symbol (✔) :

	Correct Symbol	Number
How many times ②	✓ ✓ ✓	**3**
How many times ③	✓ ✓ ✓ ✓	**4**
How many times ④	✓ ✓ ✓ ✓ ✓	**5**
How many times ⑤	✓ ✓ ✓	**3**
How many times ⑦	✓ ✓ ✓ ✓ ✓	**5**
How many times ⑧	✓ ✓	**2**

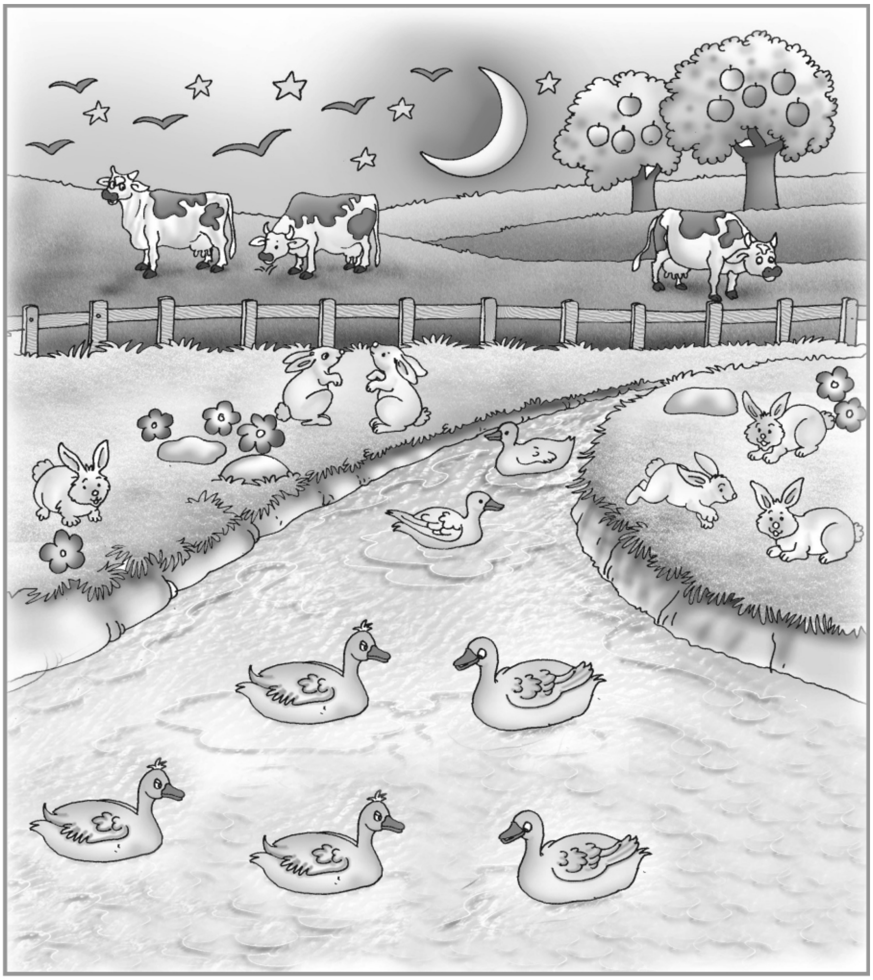
Q.4. Count and write the number of letters in the names.

Name	Number of letters
(a) K – A – M – A – L – – –	5
(b) Y – A – S – H – P – A – L –	7
(c) R – A – M – – – – –	3
(d) L – A – L – A – R – A – M –	7
(e) J – A – G – M – O – H – A – N	8
(f) R – E – K – H – A – – –	5
(g) J – A – I – M – A – L – A –	7

See the names in the hanging and fill the table.

Name Containing	Name	Number
Three Letters Word (s)	RAM	1
Five Letters Word (s)	KAMAL, REKHA	2
Seven Letters Word (s)	YASHPAL, LALARAM, JAIMALA	3
Eight Letters Word (s)	JAGMOHAN	1

Q.5. See, Count and write :



Observe the picture and complete the table

Live - Stock/Object	Correct Symbol
Cow	✓ ✓ ✓
Rabbit	✓ ✓ ✓ ✓ ✓ ✓
Duck	✓ ✓ ✓ ✓ ✓ ✓ ✓
Apple	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Flower	✓ ✓ ✓ ✓ ✓ ✓
Star	✓ ✓ ✓ ✓ ✓ ✓
Eagle	✓ ✓ ✓ ✓ ✓ ✓

Observe the table and fill the space :

(a) Number of cows 3

(b) Number of rabbits 6

(c) Number of ducks 7

(d) Number of apples 9

(e) Number of flowers 6

(f) Number of stars 6

(g) Number of eagles 6

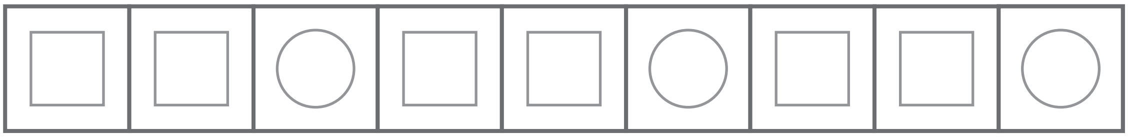
(h) Now tell whose number is the highest ? **Apple**

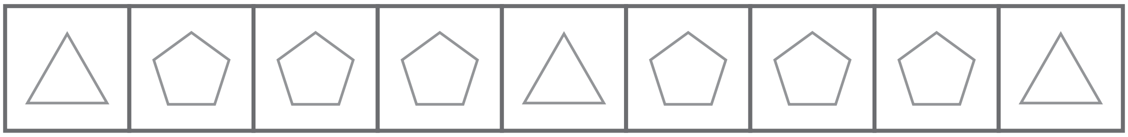
(i) Now tell whose number is the least? **Cow**

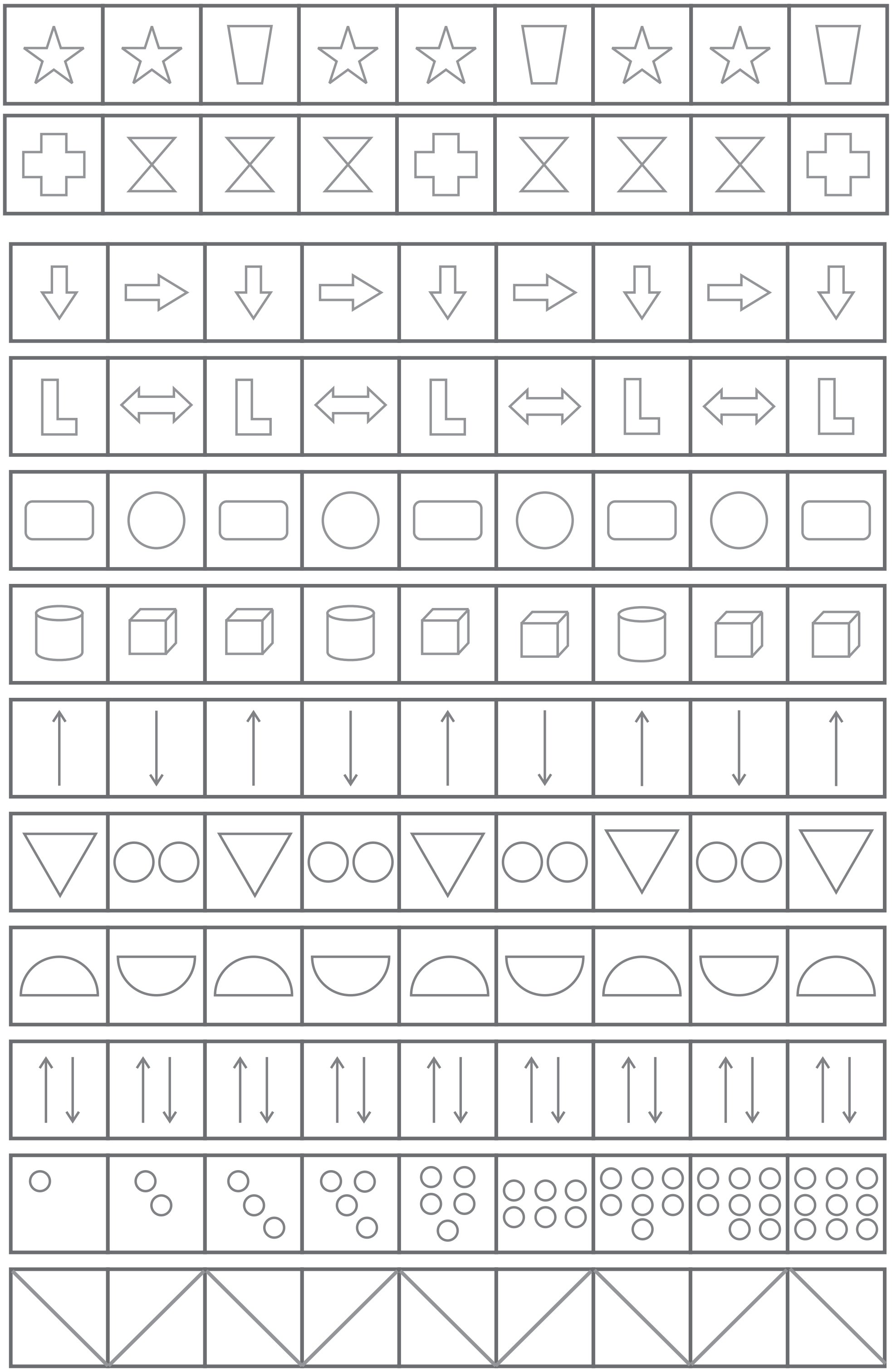
Chapter 18 Let's Decorate

Exercise 18.1

Observe and complete the sequence shown below.







Exercise 18.2

Q.1. Write the number that comes next in the pattern.

(a) 17, 18, 19, 20, 21, 22, 23

(b) 9, 8, 7, 6, 5, 4, 3, 2

(c) 11, 11, 10, 10, 9, 9, 8, 8

(d) 5, 10, 15, 20, 25, 30, 35

(e) 50, 40, 30, 20, 10

(f) 12, 22, 32, 42, 52, 62, 72

(g) 99, 89, 79, 69, 59, 49, 39, 29

(h) 1, 2, 2, 2, 2, 3, 4, 4, 4, 4, 5, 6, 6, 6, 6

Q.2. Write the missing numbers.

(a) 12, 12, 13, 13, 14, 14, 15, 15, 16 16

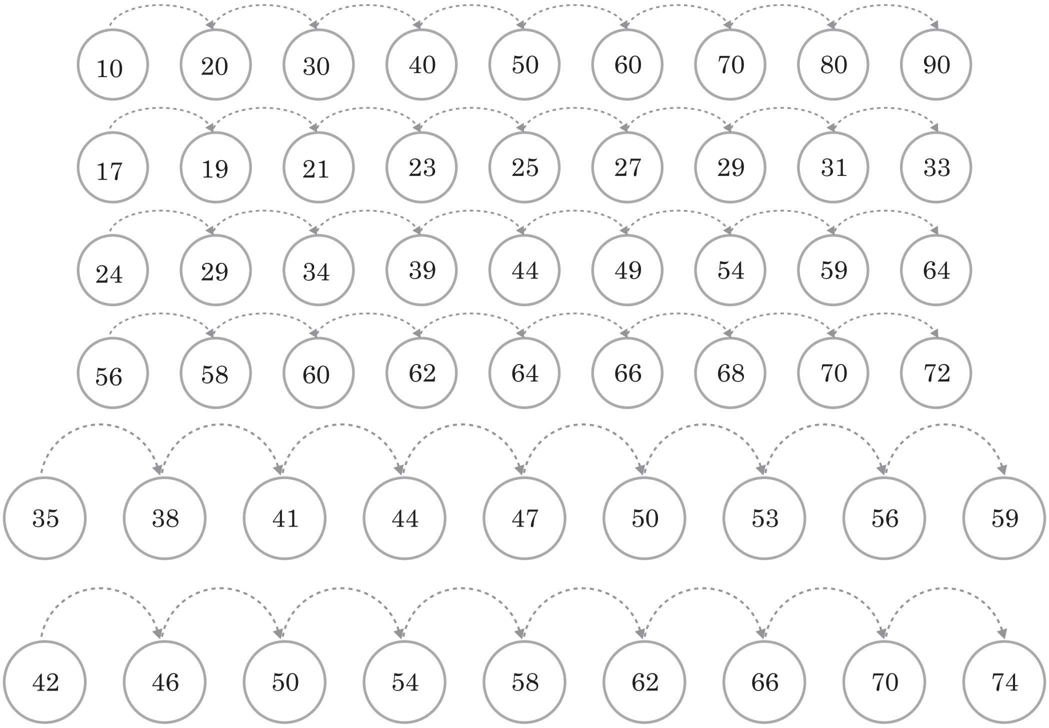
(b) 5, 10, 15, 20, 25, 30, 35, 40 45

(c) 1, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0 0

(d) 20, 22, 24, 26, 28, 30, 32 34

(e) 7, 9, 11, 13, 15, 17, 19, 21, 23 25

Q.3. Here jump over Leaving how many boxes is taking place? Can you write further numbers?



10 20 30 40 50 60 70 80 90

17 19 21 23 25 27 29 31 33

24 29 34 39 44 49 54 59 64

56 58 60 62 64 66 68 70 72

35 38 41 44 47 50 53 56 59

42 46 50 54 58 62 66 70 74

Q.4. Write numbers after thinking of jump over leaving of favourite number.

29 32 35 38 41 44 47 50 53

45 50 55 60 65 70 75 80 85

69 71 73 75 77 79 81 83 85

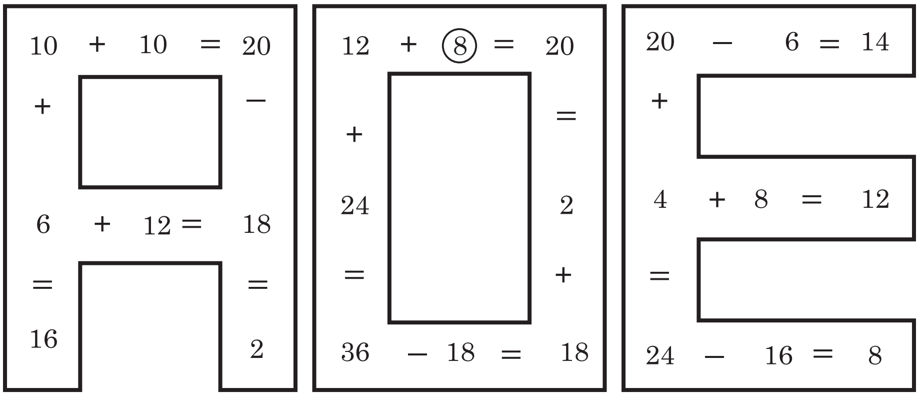
73 75 77 79 81 83 85 87 89

88 92 96 100 104 108 112 116 120

Chapter 19 Time of Fun

Exercise 19.1

Q.1. Think and write what number should come in place of dots ( ) :


10 + 10 = 20
+
−
6 + 12 = 18
=
=
16
2
12 + ⑧ = 20
+
=
24
2
=
+
36 − 18 = 18
20 − 6 = 14
+
4 + 8 = 12
=
24 − 16 = 8

Q.2. Complete the puzzle :

Sol.

22	+	16	=	38
+		−		−
16	−	2	=	14
=		=		=
38	−	14	=	24

Q.3. Answer these puzzles :

(a) On your nose if I sit, I hold your ears and make you read.
(b) Four alphabets make my name, used to burn a high flame.
(c) What has a head and a tail but no body?
(d) I have four legs but I cannot walk.

Sol. (a) Spectacles
(b) Wood
(c) Coin
(d) Chair

Q.4. Multiply and fill the colours :

From 1-12 green 🟩 , from 13 to 35 red . 🟥 , from 36 to 81 yellow 🟨

×	2	6	9	1	8	7	3	5	4
6	12	36	54	6	48	42	18	30	24
9	18	54	81	9	72	63	27	45	36
7	14	42	63	7	56	49	21	35	28
3	6	18	27	3	24	21	9	15	12
1	2	6	9	1	8	7	3	5	4
5	10	30	45	5	40	35	15	25	20
6	12	36	54	6	48	42	18	30	24

Class 3

Chapter-1 Numbers

Exercise 1.1

Q.1. Write the numerals for each of the following :

(a) Three thousand four hundred thirteen
(b) Four thousand seven hundred three
(c) Nine thousand two hundred five

Sol. (a) 3413 (b) 4703 (c) 9205

Q.2. Fill in the boxes with the missing digits.

Sol. (a) 7206 = $\boxed{7}$ thousands $\boxed{2}$ hundreds $\boxed{0}$ tens $\boxed{6}$ ones

(c) 4049 = $\boxed{4}$ thousands $\boxed{0}$ hundreds $\boxed{4}$ tens $\boxed{0}$ ones

(c) 8960 = $\boxed{8}$ thousands $\boxed{9}$ hundreds $\boxed{6}$ tens $\boxed{0}$ ones

Q.3. Write the numbers name for each of the following numbers : Rearrange this questions :

(a) 2713 (b) 8070

Sol. (a) 2 thousands 7 hundreds 1 tens 3 ones
(b) 8 thousands 0 hundreds 7 tens 0 ones

Q.4. Write the following in short form :

(a) 1 thousand + 2 hundreds + 3 tens + 5 ones = __________
(b) 3 thousands + 8 hundreds + 6 tens + 2 ones = __________
(c) 5 thousands + 0 hundreds + 2 tens + 9 ones = __________

Sol. (a) 1235 (b) 3862 (c) 5029

Q.5. Write each of the following in short form :

(a) 4000 + 50 + 6 = _________
(b) 1000 + 100 + 1 = _________
(c) 5000 + 200 + 40 +3 = _________

Sol. (a) 4056 (b) 1101 (c) 5243

Q.6. Write each of the following in the expanded form :

(a) 1576 (b) 3205 (c) 6027

Sol. (a) 1000 + 500 + 70 + 6
(b) 3000 + 200 + 5
(c) 6000 + 20 + 2

Q.7. Write the place value of :

(a) 9 in 7869 (b) 3 in 5237
(c) 0 in 6027

Sol. (a) 9 (b) 30 (c) 000

Q.8. Write the face value and place value of 6 in 9576.

Sol. 6, 6

Q.9. Find the difference between the place value and the face value of 2 in 6293.

Sol. 200 – 2 = 198

Q.10. Find the difference between the place value of 1 and the place value of 5 in the numeral 1057.

Sol. 1000 – 50 = 950

Q.11. Write the successor of the following :

(a) 568 (b) 999
(c) 5109 (d) 8889

Sol. (a) 569 (b) 1000
(c) 5110 (d) 8890

Q.12. Write the predecessor of the following :

(a) 700 (b) 867
(c) 1000 (d) 4400

Sol. (a) 699 (b) 866 (c) 999 (d) 4399

Q.13. Counting by twos, write the numbers from:

(a) 3294 to 3304 (b) 8587 to 8601

Sol. (a) 3296, 3298, 3300, 3302
(b) 8589, 8591, 8593, 8595, 8597, 8599

Q.14. Counting by tens, write the numbers from :

(a) 9880 to 9940 (b) 6887 to 6937

Sol. (a) 9890, 9900, 9910, 9920, 9930
(b) 6897, 6907, 6917, 6927

Q.15. Counting by hundreds, write the numbers from :

(a) 3790 to 4490 (b) 4999 to 5499

Sol. (a) 3890, 3990, 4090, 4190, 4290, 4390
(b) 5099, 5199, 5299, 5399

Q.16. Counting by thousands, write :

(a) five numbers from 3578 onwards.
(b) six numbers from 4609 onwards.

Sol. (a) 4578, 5578, 6578, 7578, 8528

(b) 5609, 6609, 7609, 8609, 9609, 10609

Q.17. Look at the pattern and fill in the blanks :

(a) 3707, 3807, 3907

(b) 4296, 4297, 4298

(c) 4593, 4592, 4591

Sol. (a) 4007, 4107, 4207, 4307

(b) 4299, 4300, 4301, 4302

(c) 4590, 4589, 4588, 4587

Exercise 1.2

Q.1. Compare the numbers in each of the following pairs and write the appropriate symbol > or < in each box :

(a) 203 ☐ 302 (b) 603 ☐ 360

(c) 999 ☐ 1001 (d) 4032 ☐ 4320

Sol. (a) < (b) > (c) < (d) <

Q.2. Find the smallest number.

(a) 7507, 7570, 7057, 5770, 7075, 5077

(b) 1030, 1300, 1003, 3001, 1301, 3010

(c) 2563, 3625, 3526, 3265, 3652, 3602

Sol. (a) 5077 (b) 1003 (c) 2563

Q.3. Find the largest number.

(a) 3546, 5364, 4653, 6345, 5436, 6435

(b) 1699, 9619, 6991, 9691, 6119, 9169

(c) 2651, 2561, 6215, 6521, 1265, 1562

Sol. (a) 6435 (b) 9691 (c) 6521

Q.4. Arrange in descending order :

(a) 1625, 5261, 2651, 1516, 6152, 2156

(b) 3062, 3602, 203, 402, 1206, 2306

(c) 4256, 463, 596, 3052, 5203, 659

Sol. (a) $6152 > 5261 > 2651 > 2156 > 1625 > 1516$

(b) $3602 > 3062 > 2306 > 1206 > 402 > 203$

(c) $5203 > 4256 > 3052 > 659 > 596 > 463$

Q.5. Arrange in ascending order :

(a) 1909, 1099, 199, 1990, 1090, 1009

(b) 2003, 1004, 1375, 3457, 574, 1573

(c) 3042, 342, 4032, 4320, 432, 324

Sol. (a) $199 < 1009 < 1090 < 1909 < 1990$

(b) $574 < 1004 < 1375 < 1573 < 2003 < 3475$

(c) $324 < 342 < 432 < 3042 < 4032 < 4320$

Q.6. Write the smallest 4-digit number formed by using the digits :

(a) 6, 1, 2, 4 (b) 9, 0, 3, 5

Sol. (a) 1246 (b) 3059

Q.7. Write the largest 4-digit number formed by using the digits :

(a) 3, 5, 8, 7 (b) 9, 5, 0, 2

Sol. (a) 8753 (b) 9520

Q.8. Write four 3-digit numbers formed by using the digits 4, 0 and 7.

Sol. 407, 470, 704, 740

Exercise 1.3

Q.1. Write the Roman numerals for the following.

(a) 6 (b) 2 (c) 26

Sol. (a) VI (b) II (c) XXVI

Q.2 Write the Hindu-Arabic numerals for the following.

(a) XXVIII (b) XXXIV

(c) XXXVII

Sol. (a) 28 (b) 34 (c) 37

Q.3. Fill in the placeholders with correct symbol >, < or =.

(a) XI ☐ 9 (b) X ☐ 11 (c) XIX ☐ 19

Sol. (a) > (b) < (c) =

Q.4 Which of the following are meaningless?

(a) VV (b) VX

(c) XIV (d) XIIV

(e) XIX

Sol. (a), (b)

Q.5. Solve and write the answers in Roman numerals :

(a) VI + IV (b) XI – V (c) VII + XVIII

Sol. (a) X (b) VI (c) XXV

Must Practice Exercise 1

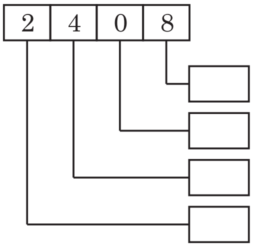
Q.1. Write the place value of the circled digit :

(a) 4 ⑦ 28 (b) 984 ③ (c) ⑦ 645

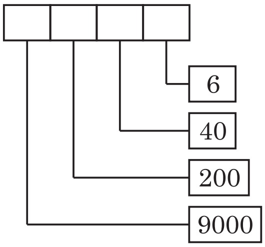
Sol. (a) 700 (b) 3 (c) 7000

Q.2. Fill in the blanks using place values for the following numbers :

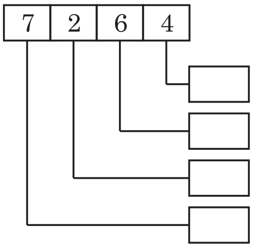
(a)



(b)



(c)



Sol. (a) 8, 00, 400, 2000 (b) 9, 2, 4, 6
(c) 4, 60, 200, 7000

Q.3. Write the number names for the following numbers :
(a) 2036 (b) 5316 (c) 2792

Sol. (a) Two thousand thirty-six
(b) Five thousand three hundred sixteen
(c) Two thousand seven hundred ninety-two

Q.4. Write the following numbers in figures :
(a) Six thousand two hundred nine
(b) Seven thousand ninety-one
(c) Two thousand four

Sol. (a) 6209 (b) 7091 (c) 2004

Q.5. Write the following in expanded form :
(a) 2472 (b) 3362 (c) 7052

Sol. (a) 2000 + 400 + 70 + 2
(b) 3000 + 300 + 60 + 2
(c) 7000 + 50 + 2

Q.6. Write the following in standard or short form :
(a) 1000 + 80 (b) 9000 + 800 + 6
(c) 7000 + 600 + 40 + 2

Sol. (a) 1080 (b) 9806 (c) 7642

Q.7. Fill in the boxes with appropriate sign >, < or = :
(a) 193 ☐ 931
(b) 2889 ☐ 2898
(c) 3974 ☐ 3986
(d) 8018 ☐ 8000 + 10 + 8
(e) 300 ☐ Three hundred ninety
(f) 8206 ☐ Eight thousand twenty-six
(g) 8029 ☐ Eight thousand twenty-nine

Sol. (a) < (b) < (c) < (d) =
(e) < (f) > (g) =

Q.8. Encircle the largest number.
(a) 354, 536, 465, 634, 543
(b) 265, 561, 215, 652, 265, 156
(c) 3699, 3619, 3699, 3969, 3611, 3916

Sol. (a) 634 (b) 652 (c) 3969

Q.9. Encircle the smallest number.
(a) 750, 570, 705, 770, 707, 507
(b) 5129, 4289, 5209, 5912, 8029, 5921

Sol. (a) 507 (b) 4289

Q.10. Arrange the following numbers in ascending (increasing) order :
(a) 2197, 2984, 2913, 2864
(b) 5497, 4318, 6412, 7999

Sol. (a) 2197 < 2864 < 2913 < 2984
(b) 4318 < 5497 < 6412 < 7999

Q.11. Arrange the following numbers in descending (decreasing) order :
(a) 766, 301, 890, 525
(b) 5678, 3435, 6789, 5457

Sol. (a) 890 > 766 > 525 > 301
(b) 6789 > 5678 > 5457 > 3435

Q.12. For each of the following write the next three numbers :
(a) 7786 (b) 5014

Sol. (a) 7787, 7788, 7789
(b) 5015, 5016, 5017

Q.13. Counting in twos, write next four numbers starting from :
(a) 4003 (b) 8065

Sol. (a) 4005, 4007, 4009, 4011
(b) 8067, 8069, 8071, 8073

Q.14. Counting in fives, write next four numbers starting from :
(a) 3505 (b) 6342

Sol. (a) 3510, 3515, 3520, 3525
(b) 6347, 6352, 6357, 6362

Q.15. Counting by tens, write next four numbers starting from :
(a) 5210 (b) 1987

Sol. (a) 5220, 5230, 5240, 5250
(b) 1997, 2007, 2017, 2027

Q.16. Counting by hundreds, write next four numbers starting from :
(a) 4358 (b) 7019

Sol. (a) 4458, 4558, 4658, 4758
(b) 7119, 7219, 7319, 7419

Q.17. Counting by thousands, write next four numbers staring from :
(a) 4907 (b) 3718

Sol. (a) 5907, 6907, 7907, 8907
(b) 4718, 5718, 6718, 7718

Q.18. Complete the pattern :
(a) 880, 882 (b) 2220, 2240

Sol. (a) 884, 886, 888, 890
(b) 2260, 2280, 2300, 2320

Q.19. Write the predecessors of the following numbers :
(a) 469 (b) 963
(c) 550 (d) 892

Sol. (a) 468 (b) 962
(c) 549 (d) 891

Q.20. Write the successors of the following numbers :
(a) 894 (b) 654
(c) 999 (d) 899

Sol. (a) 895 (b) 655
(c) 1000 (d) 900

Q.21. (a) Write the greatest and smallest four digit number formed by the digits 9, 0, 1, 7.
(b) What number do we get by adding 1 to 999? Is this number the successor of 999? Is it the smallest number of four digits?

Sol. (a) 9, 0, 1, 7
→ Greatest → 9710
→ Smallest → 1079

(b)
① ① ○
9 9 9
+ 1
1 0 0 0

999 + 1 = 1000
- Yes it is successor of 999.
- Yes it is the smallest four digit number.

Q.22. Write any five 4-digit numbers using all the digits 6, 7, 4, 5 and then arrange them in ascending order.

Sol. 6, 7, 4, 5 (Given numbers)
First number — 6745
Second number — 7456
Third number — 4567
Fourth number — 5674
Fifth number — 5764
Ascending order
$= 4567 < 5674 < 5764$
$< 6745 < 7456$

Q.23. The population of two towns A and B is 6058 and 5898 respectively. Which town has more population?

Sol. 'A' as $6058 > 5898$

Q.24. A town has 3195 males and 3980 females. Which are less in number, males or females?

Sol. Males ($3195 < 3980$)

Q.25. Convert the following into Roman Numerals :
(a) 8 = (b) 25 = (c) 11 =

Sol. (a) VIII (b) XXV (c) XI

Q.26. Convert the following into Hindu-Arabic Numerals and then Indian Numerals?
(a) XX (b) XIX
(c) XXVIII (d) XX – VIII
(e) XV – V

Sol. (a) = 20 (b) = 19
(c) = 28 (d) = 12
(e) = 10

Click Type Questions

Tick (✔) the correct answer :

Q.1. 6000 + 0 + 80 + 2 = ?

(a) 682 (b) 6082

(c) 6802 (d) 6820

Sol. (b) 6000 + 80 + 2 = 6082

Q.2. The place value of 1 in 6319 is :

(a) 0 (b) 1

(c) 10 (d) 100

Sol. (c) 1 × 10 = 10

Q.3. The correct Roman numeral for 29 is :

(a) XXIX (b) IXXX

(c) XXVIIII (d) IXXL

Sol. (a)

Q.4. The Roman numeral that represents 100 is

(a) L (b) C

(c) D (d) M

Sol. (b)

Q.5. The 'V' in Roman numerals can be represented only :

(a) once (b) twice

(c) thrice (d) four times

Sol. (a)

Q.6. Sum of the odd numbers between 5 and 12 is :

(a) 7 (b) 16 (c) 17 (d) 27

Sol. (d) 7 + 9 + 11 = 16 + 11 = 27

Q.7. Which of the following numbers has a digit greater than 1 in the hundreds place?

(a) 3072 (b) 1798

(c) 9165 (d) 5005

Sol. (b)

Q.8. Which of the following Roman numerals is meaningless?

(a) XVIII (b) IXIV

(c) XXIV (d) XXIX

Sol. (b)

Q.9. What number will come next in the following series?

200, 190, 170, 140......

(a) 130 (b) 120 (c) 110 (d) 100

Sol. (d) 1000

Q.10. Which one of the following is the correct statement?

(a) XXV < 22 (b) XXL = 30

(c) XXIX < 30 (d) LL = 100

Sol. (c) XXIX

Chapter 2 Addition and Subtraction

Exercise 2.1

Q.1. Find the sum :

(a)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 7 & 5 & 3 & 2 \\ + & 1 & 2 & 4 & 6 \\ \hline & & & & \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 4 & 9 & 3 & 6 \\ + & 5 & 0 & 5 & 3 \\ \hline & & & & \\ \hline \end{array}$$

(c)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 6 & 4 & 2 & 5 \\ + & 3 & 5 & 4 & 3 \\ \hline & & & & \\ \hline \end{array}$$

(d)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 6 & 5 & 0 & 3 \\ & 1 & 2 & 5 & 4 \\ + & & 2 & 4 & 2 \\ \hline & & & & \\ \hline \end{array}$$

(e)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 3 & 2 & 1 & 4 \\ & 2 & 4 & 2 & 2 \\ + & & 2 & 6 & 3 \\ \hline & & & & \\ \hline \end{array}$$

(f)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 5 & 0 & 2 & 4 \\ & & 3 & 3 & 0 \\ + & & & 4 & 5 \\ \hline & & & & \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 7 & 5 & 3 & 2 \\ + & 1 & 2 & 4 & 6 \\ \hline & 8 & 7 & 7 & 8 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 4 & 9 & 3 & 6 \\ + & 5 & 0 & 5 & 3 \\ \hline & 9 & 9 & 8 & 9 \\ \hline \end{array}$$

(c)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 6 & 4 & 2 & 5 \\ + & 3 & 5 & 4 & 3 \\ \hline & 9 & 9 & 6 & 8 \\ \hline \end{array}$$

(d)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 6 & 5 & 0 & 3 \\ & 1 & 2 & 5 & 4 \\ + & & 2 & 4 & 2 \\ \hline & 7 & 9 & 9 & 9 \\ \hline \end{array}$$

(e)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 3 & 2 & 1 & 4 \\ & 2 & 4 & 2 & 2 \\ + & & 2 & 6 & 3 \\ \hline & 5 & 8 & 9 & 9 \\ \hline \end{array}$$

(f)
$$\begin{array}{rrrrr} & Th & H & T & O \\ & 5 & 0 & 2 & 4 \\ & & 3 & 3 & 0 \\ + & & & 4 & 5 \\ \hline & 5 & 3 & 9 & 9 \\ \hline \end{array}$$

Q.2. Arrange in columns and find the sum :

(a) 2132 + 435

(b) 6226 + 1341 + 332

(c) 3526 and 4362

(d) 6381, 2102 and 1000

Sol. (a)

$$\begin{array}{rcccc} & 2 & 1 & 3 & 2 \\ & + & 4 & 3 & 5 \\ \hline & 2 & 5 & 6 & 7 \\ \hline \end{array}$$

(b)

$$\begin{array}{rcccc} & 6 & 2 & 2 & 6 \\ & 1 & 3 & 4 & 1 \\ & + & 3 & 3 & 2 \\ \hline & 7 & 8 & 9 & 9 \\ \hline \end{array}$$

(c)

$$\begin{array}{rcccc} & 3 & 5 & 2 & 6 \\ + & 4 & 3 & 6 & 2 \\ \hline & 7 & 8 & 8 & 8 \\ \hline \end{array}$$

(d)

$$\begin{array}{rcccc} & 6 & 3 & 8 & 1 \\ & 2 & 1 & 0 & 2 \\ + & 1 & 0 & 0 & 0 \\ \hline & 9 & 4 & 8 & 3 \\ \hline \end{array}$$

Exercise 2.2

Q.1. Find the sum :

(a)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 7 & 6 & 3 & 5 \\ + & 4 & 3 & 6 & 5 \\ \hline \\ \hline \end{array}$$

(b)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 7 & 9 & 8 & 9 \\ + & 1 & 9 & 1 & 6 \\ \hline \\ \hline \end{array}$$

(c)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 3 & 7 & 0 & 8 \\ + & 7 & 6 & 1 & 9 \\ \hline \\ \hline \end{array}$$

(d)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 2 & 7 & 5 & 8 \\ & 3 & 4 & 8 & 2 \\ + & 4 & 3 & 4 & 5 \\ \hline \\ \hline \end{array}$$

(e)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 8 & 8 & 6 & 9 \\ & & 4 & 7 & 4 \\ + & 3 & 5 & 8 & 6 \\ \hline \\ \hline \end{array}$$

(f)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 8 & 8 & 7 & 9 \\ & & 4 & 6 & 6 \\ + & & 7 & 3 & 4 \\ \hline \\ \hline \end{array}$$

Sol. (a)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{①} & \text{①} & \bigcirc \\ & 7 & 6 & 3 & 5 \\ + & 4 & 3 & 6 & 5 \\ \hline 1 & 2 & 0 & 0 & 0 \\ \hline \end{array}$$

(b)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{①} & \text{①} & \bigcirc \\ & 7 & 9 & 8 & 9 \\ + & 1 & 9 & 1 & 6 \\ \hline & 9 & 9 & 0 & 5 \\ \hline \end{array}$$

(c)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \bigcirc & \text{①} & \bigcirc \\ & 3 & 7 & 0 & 8 \\ + & 7 & 6 & 1 & 9 \\ \hline 1 & 1 & 3 & 2 & 7 \\ \hline \end{array}$$

(d)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{①} & \text{①} & \bigcirc \\ & 2 & 7 & 5 & 8 \\ & 3 & 4 & 8 & 2 \\ + & 4 & 3 & 4 & 5 \\ \hline 1 & 0 & 5 & 8 & 5 \\ \hline \end{array}$$

(e)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{②} & \text{①} & \bigcirc \\ & 8 & 8 & 6 & 9 \\ & & 4 & 7 & 4 \\ + & 3 & 5 & 8 & 6 \\ \hline 1 & 2 & 9 & 2 & 9 \\ \hline \end{array}$$

(f)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{②} & \text{①} & \text{①} & \bigcirc \\ & 8 & 8 & 7 & 9 \\ & & 4 & 6 & 6 \\ + & & 7 & 3 & 4 \\ \hline 1 & 0 & 0 & 7 & 9 \\ \hline \end{array}$$

Q.2. Find the sum :

(a) 1358 + 2679 + 1235

(b) 1996 + 2148 + 99 + 8

Sol. (a)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{①} & \text{①} & \bigcirc \\ & 1 & 3 & 5 & 8 \\ & 2 & 6 & 7 & 9 \\ + & 1 & 2 & 3 & 5 \\ \hline & 5 & 2 & 7 & 2 \\ \hline \end{array}$$

(b)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{①} & \text{①} & \bigcirc \\ & 1 & 9 & 9 & 6 \\ & 2 & 1 & 4 & 8 \\ & & & 9 & 9 \\ + & & & & 8 \\ \hline & 4 & 2 & 5 & 1 \\ \hline \end{array}$$

Q.3. Arrange in columns and add :

(a) 4047, 2964 and 3782

(b) 2874, 487, 96 and 1065

Sol. (a)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{①} & \text{①} & \bigcirc \\ & 4 & 0 & 4 & 7 \\ & 2 & 9 & 6 & 4 \\ + & 3 & 7 & 8 & 2 \\ \hline 1 & 0 & 7 & 9 & 3 \\ \hline \end{array}$$

(b)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{①} & \text{③} & \text{②} & \bigcirc \\ & 2 & 8 & 7 & 4 \\ & & 4 & 8 & 7 \\ & & & 9 & 6 \\ + & 1 & 0 & 6 & 5 \\ \hline & 4 & 5 & 2 & 2 \\ \hline \end{array}$$

Q.4. Fill in the missing numerals :

(a)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \square & 4 & \square & 3 \\ + & 6 & \square & 6 & 0 \\ \hline & 9 & 0 & 2 & 1 \\ \hline \end{array}$$

(b)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 1 & 3 & \square & \square \\ + & \square & \square & 6 & 8 \\ \hline & 9 & 3 & 1 & 7 \\ \hline \end{array}$$

(c)

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \square & 2 & \square & 7 \\ + & 1 & \square & 9 & 0 \\ \hline & 5 & 7 & 8 & 3 \\ \hline \end{array}$$

Sol.

(a) $3 + \square = 1 \Rightarrow 3 + \boxed{8} = \textcircled{1}1$

$\textcircled{1} + \square + 6 = 2 \Rightarrow 7 + \square = 2 \Rightarrow 7 + \boxed{5} = \textcircled{1}2$

$\textcircled{1} + 4 + \square = 0 \Rightarrow 5 + \square = 0 \Rightarrow 5 + \boxed{5} = \textcircled{1}0$

$\textcircled{1} + \square + 6 = 9 \Rightarrow 7 + \square = 9 \Rightarrow 7 + \boxed{2} = 9$

(b) $8 + \square = 7 \Rightarrow 9 + \boxed{9} = \textcircled{1}7$

$\textcircled{1} + \square + 6 = 1 \Rightarrow 7 + \square = 1 \Rightarrow 7 + \boxed{4} = \textcircled{1}2$

$\textcircled{1} + 3 + \square = 3 \Rightarrow 4 + \square = 3 \Rightarrow 4 + \boxed{9} = \textcircled{1}3$

$\textcircled{1} + 1 + \square = 9 \Rightarrow 2 + \square = 9 \Rightarrow 2 + \boxed{7} = 9$

(c) $7 + \square = 3 \Rightarrow 7 + \boxed{6} = \textcircled{1}3$

$\textcircled{1} + \square + 9 = 8 \Rightarrow 10 + \boxed{8} = \textcircled{1}8$

$\textcircled{1} + 2 + \square = 7 \Rightarrow 3 + \square = 7 \Rightarrow 3 + \boxed{4} = 7$

$\square + 1 = 5 \Rightarrow \boxed{4} + 1 = 5$

Exercise 2.3

Q.1. Fill in the blanks by using suitable property :

(a) 1064 + __________ = 6397 + 1064

(b) __________ + 3716 = 3716

(c) 5965 + __________ = 5965

(d) (1008 + 999) + 1066 = ________ + (999 + 1066)

(e) 1938 + (2346 + 1650) = (1938 + 2346) + __________

Sol. (a) 6397 (b) 0

(c) 0 (d) 1008

(e) 1650

Q.2. Find the sum by suitable grouping :

(a) 52 + 43 + 58 + 47

(b) 127 + 313 + 125 + 75

Sol. (a) 52 + 43 + 58 + 42

= (52 + 58) + 43 + 47)

= 110 + 90

= 200

(b) 127 + 313 + 125 + 75

= (127 + 313) + (125 + 75)

= 440 + 200

= 640

Exercise 2.4

Q.1. Subtract

(a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 6 & 5 & 4 & 8 \\ - & 4 & 3 & 3 & 6 \\ \hline & & & & \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 7 & 9 & 8 & 4 \\ - & 3 & 7 & 5 & 4 \\ \hline & & & & \\ \hline \end{array}$$

(c)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 9 & 4 & 8 & 2 \\ - & 6 & 3 & 4 & 0 \\ \hline & & & & \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 6 & 5 & 4 & 8 \\ - & 4 & 3 & 3 & 6 \\ \hline & 2 & 2 & 1 & 2 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 7 & 9 & 8 & 4 \\ - & 3 & 7 & 5 & 4 \\ \hline & 4 & 2 & 3 & 0 \\ \hline \end{array}$$

(c)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 9 & 4 & 8 & 2 \\ - & 6 & 3 & 4 & 0 \\ \hline & 3 & 1 & 4 & 2 \\ \hline \end{array}$$

Q.2. Write in column form and find the difference.

(a) 3782, 2450 (b) 9305, 6302

Sol. (a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 3 & 7 & 8 & 2 \\ - & 2 & 4 & 5 & 0 \\ \hline & 1 & 3 & 3 & 2 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 9 & 3 & 0 & 5 \\ - & 6 & 3 & 0 & 2 \\ \hline & 3 & 0 & 0 & 3 \\ \hline \end{array}$$

Q.3. Subtract 3640 from 6863.

Sol.
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 6 & 8 & 6 & 3 \\ - & 3 & 6 & 4 & 0 \\ \hline & 3 & 2 & 2 & 3 \\ \hline \end{array}$$

Q.4. Find the difference between 3472 and 3102.

Sol.

$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 3 & 4 & 7 & 2 \\ - & 3 & 1 & 0 & 2 \\ \hline & & 3 & 7 & 0 \\ \hline \end{array}$$

Q.5. Subtract :

(a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 4 & 6 & 3 & 2 \\ - & 3 & 7 & 6 & 5 \\ \hline & & & & \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 7 & 7 & 9 & 7 \\ - & 2 & 8 & 8 & 8 \\ \hline & & & & \\ \hline \end{array}$$

(c)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 5 & 6 & 4 & 3 \\ - & 2 & 8 & 5 & 6 \\ \hline & & & & \\ \hline \end{array}$$

Sol.

(a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \textcircled{15} & \textcircled{12} & \\ & \textcircled{3} & \textcircled{5} & \textcircled{2} & \textcircled{12} \\ & 4 & 6 & 3 & 2 \\ - & 3 & 7 & 6 & 5 \\ \hline & & 8 & 6 & 7 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \textcircled{6} & \textcircled{17} & \textcircled{8} & \textcircled{17} \\ & 7 & 7 & 9 & 7 \\ - & 2 & 8 & 8 & 8 \\ \hline & 4 & 9 & 0 & 9 \\ \hline \end{array}$$

(c)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \textcircled{15} & \textcircled{13} & \\ & \textcircled{4} & \textcircled{5} & \textcircled{3} & \textcircled{13} \\ & 5 & 6 & 4 & 3 \\ - & 2 & 8 & 5 & 6 \\ \hline & 2 & 7 & 8 & 7 \\ \hline \end{array}$$

Q.6. Find the difference :

(a) 3016 – 1879 (b) 4000 – 2832

Sol.

(a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \textcircled{9} & \textcircled{10} & \\ & \textcircled{2} & \textcircled{10} & \textcircled{0} & \textcircled{16} \\ & 3 & 0 & 1 & 6 \\ - & 1 & 8 & 7 & 9 \\ \hline & 1 & 1 & 3 & 7 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \textcircled{9} & \textcircled{9} & \\ & \textcircled{3} & \textcircled{10} & \textcircled{10} & \textcircled{10} \\ & 4 & 0 & 0 & 0 \\ - & 2 & 8 & 3 & 2 \\ \hline & 1 & 1 & 6 & 8 \\ \hline \end{array}$$

Q.7. Find the difference between :

(a) 4796 and 1998 (b) 8964 and 9020

Sol.

(a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \textcircled{16} & \textcircled{18} & \\ & \textcircled{3} & \textcircled{6} & \textcircled{8} & \textcircled{16} \\ & 4 & 7 & 9 & 6 \\ - & 1 & 9 & 9 & 8 \\ \hline & 2 & 7 & 9 & 8 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \textcircled{9} & \textcircled{11} & \\ & \textcircled{8} & \textcircled{10} & \textcircled{1} & \textcircled{10} \\ & 9 & 0 & 2 & 0 \\ - & 8 & 9 & 6 & 4 \\ \hline & 0 & 0 & 5 & 6 \\ \hline \end{array}$$

Q.8. Find the missing numbers.

(a)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \square & 3 & \square & 6 \\ - & 2 & \square & 6 & 0 \\ \hline & 4 & 9 & 8 & 7 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \square & 2 & \square & 1 \\ - & 2 & \square & 6 & \square \\ \hline & 2 & 8 & 9 & 7 \\ \hline \end{array}$$

Sol. (a) $\square 3 \square 6 - 2 \square 6 \square = 4987$

$\Rightarrow 4987 + 2 \square 6 \square = \square 3 \square 6$

$$\begin{array}{rcccc} & 4 & 9 & 8 & 7 \\ + & 2 & \square & 6 & \square \\ \hline & \square & 3 & \square & 6 \\ \hline \end{array}$$

$7 + \square = 6 \Rightarrow 7 + \boxed{9} = \textcircled{1}\,6$

$\textcircled{1} + 8 + 6 = \textcircled{1}\,\boxed{5}$

$\textcircled{1} + 9 + \square = 3 \Rightarrow 10 + \square = 3 = 10 + \boxed{3} = \textcircled{1}\,3$

$\textcircled{1} + 4 + 2 = \boxed{7}$

$$\Rightarrow \begin{array}{rcccc} & 4 & 9 & 8 & 7 \\ + & 2 & \boxed{3} & 6 & \boxed{9} \\ \hline & \boxed{7} & 3 & \boxed{5} & 6 \\ \hline \end{array} \longrightarrow \begin{array}{rcccc} & 7 & 3 & 5 & 6 \\ - & 2 & \boxed{3} & 6 & \boxed{9} \\ \hline & \boxed{4} & 9 & \boxed{8} & 7 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcccc} & \square & 2 & \square & 1 \\ - & 2 & \square & 6 & \square \\ \hline & 2 & 8 & 9 & 7 \\ \hline \end{array} \longrightarrow \begin{array}{rcccc} & 2 & 8 & 9 & 7 \\ + & 2 & \square & 6 & \square \\ \hline & \square & 2 & \square & 1 \\ \hline \end{array}$$

$7 + \square = 1 \Rightarrow 7 + \boxed{4} = \textcircled{1}\,\textcircled{1}$

$\textcircled{1} + 9 + 6 = \textcircled{1}\,\boxed{6}$

$\textcircled{1} + 8 + \square = 2 \Rightarrow 9 + \boxed{3} = \textcircled{1}\,2$

$\textcircled{1} + 2 + 2 = \boxed{5}$

$$\begin{array}{rcccc} & 2 & 8 & 9 & 7 \\ + & 2 & \boxed{3} & 6 & \boxed{4} \\ \hline & \boxed{5} & 2 & \boxed{6} & 1 \\ \hline \end{array} \longrightarrow \begin{array}{rcccc} & \boxed{5} & 2 & \boxed{6} & 1 \\ - & 2 & \boxed{3} & 6 & \boxed{4} \\ \hline & 2 & 8 & 9 & 7 \\ \hline \end{array}$$

Exercise 2.5

Q.1. A number exceeds 6897 by 2478. What is that number?

Sol. Let x is a number, then according to question.

$$x = 6897 - 2478$$

$$\Rightarrow \begin{array}{ccccc} & \bigcirc & \bigcirc & \textcircled{8} & \textcircled{17} \\ & 6 & 8 & 9 & 7 \\ - & 2 & 4 & 7 & 8 \\ \hline & 4 & 4 & 1 & 9 \\ \hline \end{array} \qquad \therefore\ x = 4419$$

Q.2. What number must be added to 5679 to get 9123?

Sol. Let x is required number, then according to question

$$x + 5679 = 9123$$

$$\Rightarrow \quad x = 9123 - 5679$$

$$\begin{array}{ccccc} & & \textcircled{10} & \textcircled{11} & \\ & \textcircled{8} & \textcircled{0} & \textcircled{1} & \textcircled{13} \\ & 9 & 1 & 2 & 3 \\ - & 5 & 6 & 7 & 9 \\ \hline & 3 & 4 & 4 & 4 \\ \hline \end{array} \qquad x = 3444$$

Q.3. What number must be subtracted from 6314 to get 4869?

Sol. Let x is a number, then according to question,

$$6314 - x = 4869$$

$$6314 - 4869 = x$$

$$\Rightarrow \quad x = 6314 - 4869$$

$$\begin{array}{ccccc} & & \textcircled{12} & \textcircled{10} & \\ & \textcircled{5} & \textcircled{2} & \textcircled{0} & \textcircled{14} \\ & 6 & 3 & 1 & 4 \\ - & 4 & 8 & 6 & 9 \\ \hline & 1 & 4 & 4 & 5 \\ \hline \end{array} \qquad x = 1445$$

Q.4. The difference between two numbers is 1876. If the smaller number is 7948 find the larger number.

Sol. Smaller number = 7948

Larger number = x (let)

Difference = 1876

According to question

$$x - 7948 = 1876$$

$$\Rightarrow \quad x = 7984 + 1876$$

$$x = 1876$$

$$\begin{array}{ccccc} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} \\ & 7 & 9 & 4 & 8 \\ + & 1 & 8 & 7 & 6 \\ \hline & 9 & 8 & 2 & 4 \\ \hline \end{array}$$

Q.5. The difference between two numbers is 2895. If the larger number is 8560 find the smaller one.

Sol. Larger number is 8560,

Let smaller number is x,

Difference is 2895

According to question,

$$8560 - x = 2895$$

$$\Rightarrow \quad 8560 - 2895 = x$$

$$\Rightarrow \quad x = 8560 - 2895$$

$$\begin{array}{ccccc} & & \textcircled{14} & \textcircled{15} & \\ & \textcircled{7} & \textcircled{4} & \textcircled{5} & \textcircled{10} \\ & 8 & 5 & 6 & 0 \\ - & 2 & 8 & 9 & 5 \\ \hline & 5 & 6 & 6 & 5 \\ \hline \end{array}$$

Q.6. Uma needs ₹ 5108 to buy a silver chain. She has ₹ 3289 with her. How much more does she need?

Sol. Cost of silver chain = ₹ 5,108

Money she has = ₹ 3,289

Let she need money = x

According to question,

$$x + \text{₹}\,3{,}289 = \text{₹}\,5{,}108$$

$$\Rightarrow \quad x = \text{₹}\,5{,}108 - \text{₹}\,3{,}289$$

$$\begin{array}{ccccc} & & \textcircled{10} & \textcircled{9} & \\ & \textcircled{4} & \textcircled{0} & \textcircled{10} & \textcircled{18} \\ & 5 & 1 & 0 & 8 \\ - & 3 & 2 & 8 & 9 \\ \hline & 1 & 8 & 1 & 9 \\ \hline \end{array} \qquad \text{Now } \boxed{x = \text{₹}\ 1819}$$

Q.7. The cost of a music system is ₹ 6356 more than that of a bicycle. If the cost of the bicycle is ₹ 1765, what is the cost of the music system?

Sol. Cost of bicycle = ₹ 1,765

Cost of music system = ₹ 6,356 more than bicycle

∴ Cost of music system

$$= \text{₹}\,6{,}356 + \text{₹}\,1{,}765 = \text{₹}\,8{,}121$$

$$\Rightarrow \begin{array}{ccccc} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 6 & 3 & 5 & 6 \\ + & 1 & 7 & 6 & 5 \\ \hline & 8 & 1 & 2 & 1 \\ \hline \end{array}$$

Q.8. In an orchard, there are 1863 coconut trees, 1077 mango trees, 978 tamarind trees and 169 orange trees. How many trees are there in all in the orchard?

Sol. No. of coconut trees = 1863

No. of mango trees = 1077

No. of tamarind trees = 978

No. of orange tree = 169

Total trees = 1863 + 1077 + 978 + 169

= 4087

$$\begin{array}{ccccc}
 & \textcircled{2} & \textcircled{2} & \textcircled{2} & \bigcirc \\
 & 1 & 8 & 6 & 3 \\
 & 1 & 0 & 7 & 7 \\
 & & 9 & 7 & 8 \\
+ & & 1 & 6 & 9 \\ \hline
 & 4 & 0 & 8 & 7 \\ \hline
\end{array}$$

Q.9. In an examination 8320 students appeared. Out of these 6548 could get through. How many failed?

Sol. Student appeared = 8320

Student passed = 6548

Student failed = 8320 – 6548

= 1772

$$\begin{array}{ccccc}
 & & \textcircled{12} & \textcircled{11} & \\
 & \textcircled{7} & \textcircled{2} & \textcircled{1} & \textcircled{10} \\
 & 8 & 3 & 2 & 0 \\
- & 6 & 5 & 4 & 8 \\ \hline
 & 1 & 7 & 7 & 2 \\ \hline
\end{array}$$

Q.10. Mr Raman had ₹ 9213 in his bank account. He withdraw ₹ 7435. How much money left in his bank account now?

Sol. Money in bank account = ₹ 9,213

Money withdrawl = ₹ 7,435

Money lefted = ₹ 9,213 – ₹ 7,435

= ₹ 1778

$$\begin{array}{ccccc}
 & & \textcircled{11} & \textcircled{10} & \\
 & \textcircled{8} & \textcircled{1} & \textcircled{0} & \textcircled{13} \\
 & 9 & 2 & 1 & 3 \\
- & 7 & 4 & 3 & 5 \\ \hline
 & 1 & 7 & 7 & 8 \\ \hline
\end{array}$$

Must Practice Exercise 2

Q.1. Add the following :

(a)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & 5 & 3 & 6 & 2 \\
 & & & 5 & 4 \\
+ & & 3 & 0 & 2 \\ \hline
 & & & & \\ \hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & 7 & 8 & 0 & 6 \\
 & & 1 & 6 & 1 \\
+ & & & 3 & 2 \\ \hline
 & & & & \\ \hline
\end{array}$$

Sol.

(a)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & \bigcirc & \textcircled{1} & \bigcirc & \bigcirc \\
 & 5 & 3 & 6 & 2 \\
 & & & 5 & 4 \\
+ & & 3 & 0 & 2 \\ \hline
 & 5 & 7 & 1 & 8 \\ \hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
 & 7 & 8 & 0 & 6 \\
 & & 1 & 6 & 1 \\
+ & & & 3 & 2 \\ \hline
 & 7 & 9 & 9 & 9 \\ \hline
\end{array}$$

Q.2. Arrange in columns and find the sum :

(a) 2401 + 1036 + 101 + 60

(b) 5360, 407, 111 and 21

Sol.

(a)

$$\begin{array}{ccccc}
 & 2 & 4 & 0 & 1 \\
 & 1 & 0 & 3 & 6 \\
 & & 1 & 0 & 1 \\
+ & & & 6 & 0 \\ \hline
 & 3 & 5 & 9 & 8 \\ \hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & 5 & 3 & 6 & 0 \\
 & & 4 & 0 & 7 \\
 & & 1 & 1 & 1 \\
+ & & & 2 & 1 \\ \hline
 & 5 & 8 & 9 & 9 \\ \hline
\end{array}$$

Q.3. Add the following :

(a)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & 6 & 9 & 8 & 4 \\
 & & & 2 & 9 \\
 & & 5 & 3 & 6 \\
+ & & 2 & 0 & 8 \\ \hline
 & & & & \\ \hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & 7 & 1 & 6 & 5 \\
 & & 6 & 7 & 8 \\
 & & & 4 & 6 \\
+ & 1 & 0 & 5 & 3 \\ \hline
 & & & & \\ \hline
\end{array}$$

Sol.

(a)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & \textcircled{1} & \textcircled{1} & \textcircled{2} & \bigcirc \\
 & 6 & 9 & 8 & 4 \\
 & & & 2 & 9 \\
 & & 5 & 3 & 6 \\
+ & & 2 & 0 & 8 \\ \hline
 & 7 & 7 & 5 & 7 \\ \hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & Th & H & T & O \\
 & \bigcirc & \textcircled{2} & \textcircled{2} & \bigcirc \\
 & 7 & 1 & 6 & 5 \\
 & & 6 & 7 & 8 \\
 & & & 4 & 6 \\
+ & 1 & 0 & 5 & 3 \\ \hline
 & 8 & 9 & 4 & 2 \\ \hline
\end{array}$$

Q.4. Find the sum :

(a) 4059 + 816 + 1977

(b) 8888, 777, 66, 155 and 8

Sol.

(a)

$$\begin{array}{ccccc}
 & \textcircled{1} & \textcircled{1} & \textcircled{2} & \bigcirc \\
 & 4 & 0 & 5 & 9 \\
 & & 8 & 1 & 6 \\
+ & 1 & 9 & 7 & 7 \\ \hline
 & 6 & 8 & 5 & 2 \\ \hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & \textcircled{1} & \textcircled{2} & \textcircled{3} & \bigcirc \\
 & 8 & 8 & 8 & 8 \\
 & & 7 & 7 & 7 \\
 & & & 6 & 6 \\
 & & 1 & 5 & 5 \\
+ & & & & 8 \\ \hline
 & 9 & 8 & 9 & 4 \\ \hline
\end{array}$$

Q.5. Find the missing numerals :

(a)
$$\begin{array}{ccccc} & Th & H & T & O \\ & 5 & \square & 8 & \square \\ + & 2 & 3 & \square & 9 \\ \hline & \square & 1 & 6 & 6 \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & Th & H & T & O \\ & 6 & \square & \square & 4 \\ + & 1 & 7 & 9 & \square \\ \hline & \square & 0 & 8 & 2 \\ \hline \end{array}$$

(c)
$$\begin{array}{ccccc} & Th & H & T & O \\ & 8 & \square & 6 & \boxed{1} \\ - & \square & 5 & \square & 8 \\ \hline & 3 & 7 & 8 & \square \\ \hline \end{array}$$

Sol. (a) $\square + 9 = 6 \Rightarrow \boxed{7} + 9 = \textcircled{1}6$

$\textcircled{1} + 8 + \square = 6 \Rightarrow 9 + \boxed{7} = \textcircled{1}6$

$\textcircled{1} + \square + 3 = 1 \Rightarrow 4 + \boxed{7} = \textcircled{1}1$

$\textcircled{1} + 5 + 2 = \boxed{8}$

$$\begin{array}{ccccc} & 5 & \boxed{7} & 8 & \boxed{7} \\ + & 2 & 3 & \boxed{7} & 9 \\ \hline & \boxed{8} & 1 & 6 & 6 \\ \hline \end{array}$$

(b) $4 + \square = 2 \Rightarrow 4 + \boxed{8} = \textcircled{1}2$

$\textcircled{1} + \square + 9 = 2 \Rightarrow 10 + \boxed{2} = \textcircled{1}2$

$\textcircled{1} + \square + 7 = 0 \Rightarrow 8 + 2 = \textcircled{1}0$

$\textcircled{1} + 6 + 1 = \boxed{8}$

$$\begin{array}{ccccc} & 6 & \boxed{2} & 8 & 4 \\ + & 1 & 7 & 9 & \boxed{8} \\ \hline & \boxed{8} & 0 & 8 & 2 \\ \hline \end{array}$$

(c)
$$\begin{array}{ccccc} & \boxed{8} & \square & 6 & 1 \\ - & \square & 5 & \square & 8 \\ \hline & 3 & 7 & 8 & \square \\ \hline \end{array} \qquad \begin{array}{ccccc} & 3 & 7 & 8 & \square \\ + & \square & 5 & \square & 8 \\ \hline & 8 & \square & 6 & 1 \\ \hline \end{array}$$

$\square + 8 = 1 \Rightarrow \boxed{3} + 8 = \textcircled{1}1$

$\textcircled{1} + 8 + \square = 6 \Rightarrow 9 + \boxed{7} = \textcircled{1}6$

$\textcircled{1} + 7 + 5 = \textcircled{1}\boxed{3}$

$\textcircled{1} + 3 + \square = 8 \Rightarrow 4 + \boxed{4} = 8$

$$\begin{array}{ccccc} & 3 & 7 & 8 & \boxed{3} \\ + & \boxed{4} & 5 & \boxed{7} & 8 \\ \hline & 8 & \boxed{3} & 6 & 1 \\ \hline \end{array} \qquad \begin{array}{ccccc} & 8 & \boxed{3} & 6 & 1 \\ - & \boxed{4} & 5 & 7 & 8 \\ \hline & 3 & 7 & 8 & \boxed{3} \\ \hline \end{array}$$

Q.6. Fill in the blanks :

(a) 2357 + 1876 = 1876 + ________

(b) 4689 + 1831 = ________ + 4689

(c) ________ + 2391 = 2391 + 5137

(d) (2346 + 1530) + 1734 = ________ + (1530 + 1734)

Sol. (a) 2357 (b) 1831

(c) 5137 (d) 2346

Q.7. Find the sum by suitable grouping :

(a) 53 + 42 + 47 + 58

(b) 291 + 378 + 109 + 122

Sol. (a) 53 + 42 + 47 + 58

= (53 + 47) + (42 + 58)

= 100 + 100 = 200

(b) 291 + 378 + 109 + 122

= (291 + 109) + (378 + 122)

= 400 + 500 = 900

Q.8. Write in columns form and find the difference :

(a) 5697 – 4372

(b) Subtract 478 from 1589

Sol. (a)
$$\begin{array}{ccccc} & 5 & 6 & 9 & 7 \\ - & 4 & 3 & 7 & 2 \\ \hline & 1 & 3 & 2 & 5 \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & 1 & 5 & 8 & 9 \\ & - & 4 & 7 & 8 \\ \hline & 1 & 1 & 1 & 1 \\ \hline \end{array}$$

Q.9. Subtract the following :

(a)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 3 & 9 & 0 & 8 \\ - & & 6 & 0 & 3 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 6 & 4 & 5 & 0 \\ - & & 2 & 3 & 0 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 1 & 2 & 3 & 8 \\ - & & & 2 & 3 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 3 & 6 & 0 & 0 \\ - & 2 & 9 & 7 & 5 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 6 & 0 & 0 & 1 \\ - & 2 & 9 & 9 & 9 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 9 & 6 & 5 & 0 \\ - & 5 & 4 & 6 & 8 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 3 & 9 & 0 & 8 \\ - & & 6 & 0 & 3 \\ \hline & 3 & 3 & 0 & 5 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & 6 & 4 & 5 & 0 \\ - & & 2 & 3 & 0 \\ \hline & 6 & 2 & 2 & 0 \\ \hline \end{array}$$

(c)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & \text{○} & \text{○} & \text{○} & \text{○} \\ & 1 & 2 & 3 & 8 \\ - & & & 2 & 3 \\ \hline & 1 & 2 & 1 & 5 \\ \hline \end{array}$$

(d)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \text{⑮} & \text{⑨} & \\ & \text{②} & \text{⑤} & \text{⑩} & \text{⑩} \\ & 3 & 6 & 0 & 0 \\ - & 2 & 9 & 7 & 5 \\ \hline & 0 & 6 & 2 & 5 \\ \hline \end{array}$$

(e)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & \text{⑨} & \text{⑨} & \\ & \text{⑤} & \text{⑩} & \text{⑩} & \text{⑪} \\ & 6 & 0 & 0 & 1 \\ - & 2 & 9 & 9 & 9 \\ \hline & 3 & 0 & 0 & 2 \\ \hline \end{array}$$

(f)
$$\begin{array}{rrrrr} & \text{Th} & \text{H} & \text{T} & \text{O} \\ & & & \text{⑭} & \\ & \text{○} & \text{⑤} & \text{④} & \text{⑩} \\ & 9 & 6 & 5 & 0 \\ - & 5 & 4 & 6 & 8 \\ \hline & 4 & 1 & 8 & 2 \\ \hline \end{array}$$

Q.10. There are 3250 students in a school. If 1867 of them are boys, how many are girls?

Sol.
$$\begin{array}{rrrrrr} & & & \text{⑪} & \text{⑭} & \\ & & \text{②} & \text{①} & \text{④} & \text{⑩} \\ \text{Total students} = & & 3 & 2 & 5 & 0 \\ \text{Total boys} = & - & 1 & 8 & 6 & 7 \\ \hline \text{Total girls} = & & 1 & 3 & 8 & 3 \\ \hline \end{array}$$

Q.11. On Kunal's admission in a school, his father paid ₹ 2758 as fees, spent ₹ 1367 on his books and ₹ 975 on his school uniform. How much money did he spend in all?

Sol.
$$\begin{array}{rrrrrrr} & & & \text{②} & \text{②} & \text{②} & \text{○} \\ \text{Fees paid} = & & ₹ & 2 & 7 & 5 & 8 \\ \text{Cost of books} = & & ₹ & 1 & 3 & 6 & 7 \\ \text{Cost of uniform} = & + & ₹ & & 9 & 7 & 5 \\ \hline \text{Total expenses} = & & ₹ & 5 & 1 & 0 & 0 \\ \hline \end{array}$$

Q.12. The sum of two numbers is 8324. If one of the numbers is 5896, what is the other number?

Sol.
$$\begin{array}{rrrrrr} & & & \text{⑫} & \text{⑪} & \\ & & \text{⑦} & \text{②} & \text{①} & \text{⑭} \\ \text{Sum of two numbers} = & & 8 & 3 & 2 & 4 \\ \text{One number} = & - & 5 & 8 & 9 & 6 \\ \hline \text{Other number} = & & 2 & 4 & 2 & 8 \\ \hline \end{array}$$

Click Type Questions

Tick (✔) the correct answer :

Q.1. $25+35+45+55=?$

(a) 130	(b) 140
(c) 150	(d) 160

Sol. (d) $25+35+45+55$

$=(25+45)\ (35+55)$

$=70+90=160$

Q.2. If we add 9 tens, 5 hundreds and 3 ones, then the result is :

(a) 17	(b) 395
(c) 593	(d) 953

Sol. (c) $9\times10+5\times100+3\times1$

$=90+500+3=593$

Q.3. Joe has ₹ 38, Anna has ₹ 25 more than Joe. How much money do they have together?

(a) ₹ 63	(b) ₹ 76
(c) ₹ 91	(d) ₹ 101

Sol. (d) Joe has money = ₹ 38

Anna has money = ₹ 25 more than Joe

= ₹ 25 + ₹ 38 = ₹ 63

$$\begin{array}{rrrrr} & & & \text{①} & \\ \text{Total money} = & & ₹ & 3 & 8 \\ & + & ₹ & 6 & 3 \\ \hline & & ₹\,1 & 0 & 1 \\ \hline \end{array}$$

Q.4. $1345+55+100=\square+500$

What should come in the empty box above?

(a) 900	(b) 1000
(c) 1050	(d) 1100

Sol. (b) $1345+55+100=\square+500$

$\Rightarrow \quad \square=(1345+55)+100-500$

$=(1400+100)-500$

$=1500-500=1000$

Q.5. In the sum of 1984, 2417 and 1689, how many thousands are there?

(a) 5 (b) 6

(c) 7 (d) 8

Sol. (b)

$$\begin{array}{rrrrr} & \textcircled{2} & \textcircled{1} & \textcircled{2} & \bigcirc \\ & 1 & 9 & 8 & 4 \\ & 2 & 4 & 1 & 7 \\ + & 1 & 6 & 8 & 9 \\ \hline & 6 & 0 & 9 & 0 \end{array} \qquad \boxed{\text{6 thousands}}$$

Q.6. 14 less than 41 is :

(a) 7 (b) 33

(c) 27 (d) 37

Sol. (c)

$$\begin{array}{rrr} & \textcircled{3} & \textcircled{11} \\ & 4 & 1 \\ - & 1 & 4 \\ \hline & 2 & 7 \\ \hline \end{array}$$

Q.7. Which number will come next in the pattern shown below?

63, 61, 57, 51...

(a) 41 (b) 43

(c) 45 (d) 47

Sol. (c) 63 – 2 = 61

61 – 4 = 57

57 – 6 = 51

51 – 8 = $\textcircled{43}$

Q.8. Look at the number sentence below :

87 + ☐ = 141

Which number will make the number sentence true?

(a) 54 (b) 56

(c) 64 (d) 68

Sol. (a) 87 + ☐ = 141 ⇒ ☐ = 141 – 87

$$\Rightarrow \begin{array}{rrrr} & & \textcircled{13} & \\ & \textcircled{0} & \textcircled{3} & \textcircled{11} \\ & 1 & 4 & 1 \\ - & & 8 & 7 \\ \hline & & 5 & 4 \\ \hline \end{array}$$

Q.9. What is 15 – 14 + 13 – 12 + 11 – 10 + 9 – 8 ?

(a) 92 (b) 48

(c) 4 (d) 1

Sol. (c) 15 – 14 + 13 – 12 + 11 – 10 + 9 – 8

= (15 – 14) + (13 – 12) + (11 – 10) – (9 – 8)

= 1 + 1 + 1 + 1 = 4

Q.10. 800 – ☐ tens = 630

(a) 17 (b) 170

(c) 27 (d) 270

Sol. (d) 800 – ☐ tens = 630

⇒ ☐ tens = 800 – 630

$$\Rightarrow \begin{array}{rrrr} & \textcircled{7} & \textcircled{10} & \bigcirc \\ & 8 & 0 & 0 \\ - & 6 & 3 & 0 \\ \hline & 1 & 7 & 0 \end{array} \qquad \textcircled{170} \rightarrow \boxed{\text{17 tens}}$$

Chapter 3 Multiplication and Division

Exercise 3.1

Multiply :

Q.1. $\begin{array}{rrr} & T & O \\ & 1 & 7 \\ \times & & 1 \\ \hline & & \\ \hline \end{array}$ **Q.2.** $\begin{array}{rrr} & T & O \\ & 4 & 0 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$ **Q.3.** $\begin{array}{rrr} & T & O \\ & 2 & 3 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$

Q.4. $\begin{array}{rrr} & T & O \\ & 2 & 4 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$ **Q.5.** $\begin{array}{rrr} & T & O \\ & 3 & 4 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$ **Q.6.** $\begin{array}{rrr} & T & O \\ & 4 & 1 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$

Q.7. $\begin{array}{rrr} & T & O \\ & 4 & 2 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$ **Q.8.** $\begin{array}{rrr} & T & O \\ & 8 & 7 \\ \times & & 1 \\ \hline & & \\ \hline \end{array}$ **Q.9.** $\begin{array}{rrr} & T & O \\ & 3 & 3 \\ \times & & 3 \\ \hline & & \\ \hline \end{array}$

Q.10. $\begin{array}{rrr} & T & O \\ & 4 & 3 \\ \times & & 2 \\ \hline & & \\ \hline \end{array}$

Sol. $\begin{array}{rrr} & T & O \\ & 1 & 7 \\ \times & & 1 \\ \hline & 1 & 7 \\ \hline \end{array}$ **Sol.** $\begin{array}{rrr} & T & O \\ & 4 & 0 \\ \times & & 2 \\ \hline & 8 & 0 \\ \hline \end{array}$ **Sol.** $\begin{array}{rrr} & T & O \\ & 2 & 3 \\ \times & & 2 \\ \hline & 4 & 6 \\ \hline \end{array}$

Sol. $\begin{array}{rrr} & T & O \\ & 2 & 4 \\ \times & & 2 \\ \hline & 4 & 8 \\ \hline \end{array}$ **Sol.** $\begin{array}{rrr} & T & O \\ & 3 & 4 \\ \times & & 2 \\ \hline & 6 & 8 \\ \hline \end{array}$ **Sol.** $\begin{array}{rrr} & T & O \\ & 4 & 1 \\ \times & & 2 \\ \hline & 8 & 2 \\ \hline \end{array}$

Sol. $\begin{array}{rrr} & T & O \\ & 4 & 2 \\ \times & & 2 \\ \hline & 8 & 4 \\ \hline \end{array}$ **Sol.** $\begin{array}{rrr} & T & O \\ & 8 & 7 \\ \times & & 1 \\ \hline & 8 & 7 \\ \hline \end{array}$ **Sol.** $\begin{array}{rrr} & T & O \\ & 3 & 3 \\ \times & & 3 \\ \hline & 9 & 9 \\ \hline \end{array}$

Sol. $\begin{array}{rrr} & T & O \\ & 4 & 3 \\ \times & & 2 \\ \hline & 8 & 6 \\ \hline \end{array}$

Exercise 3.2

Multiply :

Q.1.
$$\begin{array}{cc} T & O \\ 2 & 5 \\ \times & 4 \\ \hline & \\ \hline \end{array}$$

Q.2.
$$\begin{array}{cc} T & O \\ 1 & 9 \\ \times & 5 \\ \hline & \\ \hline \end{array}$$

Q.3.
$$\begin{array}{cc} T & O \\ 1 & 5 \\ \times & 8 \\ \hline & \\ \hline \end{array}$$

Q.4.
$$\begin{array}{cc} T & O \\ 4 & 8 \\ \times & 2 \\ \hline & \\ \hline \end{array}$$

Q.5.
$$\begin{array}{ccc} H & T & O \\ & 5 & 4 \\ & \times & 4 \\ \hline & & \\ \hline \end{array}$$

Q.6.
$$\begin{array}{ccc} H & T & O \\ & 3 & 4 \\ & \times & 8 \\ \hline & & \\ \hline \end{array}$$

Q.7.
$$\begin{array}{ccc} H & T & O \\ & 6 & 8 \\ & \times & 4 \\ \hline & & \\ \hline \end{array}$$

Q.8.
$$\begin{array}{ccc} H & T & O \\ & 9 & 3 \\ & \times & 5 \\ \hline & & \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} & T & O \\ & \textcircled{2} & \bigcirc \\ & 2 & 5 \\ & \times & 4 \\ \hline 1 & 0 & 0 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cc} T & O \\ \textcircled{4} & \bigcirc \\ 1 & 9 \\ \times & 5 \\ \hline 9 & 5 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} & T & O \\ & \textcircled{4} & \bigcirc \\ & 1 & 5 \\ & \times & 8 \\ \hline 1 & 2 & 0 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cc} T & O \\ \textcircled{1} & \bigcirc \\ 4 & 8 \\ \times & 2 \\ \hline 9 & 6 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ & \textcircled{1} & \bigcirc \\ & 5 & 4 \\ & \times & 4 \\ \hline 2 & 1 & 6 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ & \textcircled{3} & \bigcirc \\ & 3 & 4 \\ & \times & 8 \\ \hline 2 & 7 & 2 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ & \textcircled{3} & \bigcirc \\ & 6 & 8 \\ & \times & 4 \\ \hline 2 & 7 & 2 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ & \textcircled{1} & \bigcirc \\ & 9 & 3 \\ & \times & 5 \\ \hline 4 & 6 & 5 \\ \hline \end{array}$$

Exercise 3.3

Q.1.
$$\begin{array}{ccc} H & T & O \\ 1 & 3 & 5 \\ & \times & 7 \\ \hline & & \\ \hline \end{array}$$

Q.2.
$$\begin{array}{ccc} H & T & O \\ 4 & 1 & 3 \\ & \times & 2 \\ \hline & & \\ \hline \end{array}$$

Q.3.
$$\begin{array}{ccc} H & T & O \\ 2 & 0 & 7 \\ & \times & 4 \\ \hline & & \\ \hline \end{array}$$

Q.4.
$$\begin{array}{ccc} H & T & O \\ 1 & 3 & 2 \\ & \times & 3 \\ \hline & & \\ \hline \end{array}$$

Q.5.
$$\begin{array}{ccc} H & T & O \\ 1 & 6 & 9 \\ & \times & 4 \\ \hline & & \\ \hline \end{array}$$

Q.6.
$$\begin{array}{ccc} H & T & O \\ 2 & 1 & 0 \\ & \times & 4 \\ \hline & & \\ \hline \end{array}$$

Q.7.
$$\begin{array}{cccc} & H & T & O \\ & 9 & 8 & 6 \\ & & \times & 7 \\ \hline & & & \\ \hline \end{array}$$

Q.8.
$$\begin{array}{cccc} & H & T & O \\ & 4 & 5 & 6 \\ & & \times & 8 \\ \hline & & & \\ \hline \end{array}$$

Q.9.
$$\begin{array}{cccc} & H & T & O \\ & 8 & 6 & 7 \\ & & \times & 6 \\ \hline & & & \\ \hline \end{array}$$

Q.10.
$$\begin{array}{cccc} & H & T & O \\ & 6 & 0 & 8 \\ & & \times & 5 \\ \hline & & & \\ \hline \end{array}$$

Q.11.
$$\begin{array}{cccc} & H & T & O \\ & 7 & 8 & 2 \\ & & \times & 5 \\ \hline & & & \\ \hline \end{array}$$

Q.12.
$$\begin{array}{cccc} & H & T & O \\ & 5 & 9 & 8 \\ & & \times & 9 \\ \hline & & & \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ \textcircled{2} & \textcircled{3} & \bigcirc \\ 1 & 3 & 5 \\ & \times & 7 \\ \hline 9 & 4 & 5 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ \bigcirc & \bigcirc & \bigcirc \\ 4 & 1 & 3 \\ & \times & 2 \\ \hline 8 & 2 & 6 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ \bigcirc & \textcircled{2} & \bigcirc \\ 2 & 0 & 7 \\ & \times & 4 \\ \hline 8 & 2 & 8 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ \bigcirc & \bigcirc & \bigcirc \\ 1 & 3 & 2 \\ & \times & 3 \\ \hline 3 & 9 & 6 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ \textcircled{2} & \textcircled{3} & \bigcirc \\ 1 & 6 & 9 \\ & \times & 4 \\ \hline 6 & 7 & 6 \\ \hline \end{array}$$

Sol.
$$\begin{array}{ccc} H & T & O \\ \bigcirc & \bigcirc & \bigcirc \\ 2 & 1 & 0 \\ & \times & 4 \\ \hline 8 & 4 & 0 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cccc} & H & T & O \\ & \textcircled{6} & \textcircled{4} & \bigcirc \\ & 9 & 8 & 6 \\ & & \times & 7 \\ \hline 6 & 9 & 0 & 2 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cccc} & H & T & O \\ & \textcircled{4} & \textcircled{4} & \bigcirc \\ & 4 & 5 & 6 \\ & & \times & 8 \\ \hline 3 & 6 & 4 & 8 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cccc} & H & T & O \\ & \textcircled{4} & \textcircled{4} & \bigcirc \\ & 8 & 6 & 7 \\ & & \times & 6 \\ \hline 5 & 2 & 0 & 2 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cccc} & H & T & O \\ & \bigcirc & \textcircled{4} & \bigcirc \\ & 6 & 0 & 8 \\ & & \times & 5 \\ \hline 3 & 0 & 4 & 0 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cccc} & H & T & O \\ & \textcircled{4} & \textcircled{1} & \bigcirc \\ & 7 & 8 & 2 \\ & & \times & 5 \\ \hline 3 & 9 & 1 & 0 \\ \hline \end{array}$$

Sol.
$$\begin{array}{cccc} & H & T & O \\ & \textcircled{8} & \textcircled{7} & \bigcirc \\ & 5 & 9 & 8 \\ & & \times & 9 \\ \hline 5 & 3 & 8 & 2 \\ \hline \end{array}$$

Exercise 3.4

Find the product.

Q.1. 75×10

Sol. $75 \times 1\textcircled{0} = 750$

Q.2. 387×10

Sol. $387 \times 1\textcircled{0} = 3870$

Q.3. 23×100

Sol. $23 \times 10\textcircled{0} = 2300$

Q. 4. 38×100

Sol. $38 \times 1\textcircled{00} = 3800$

Q.5. 4×1000

Sol. $4 \times 100\textcircled{0} = 4000$

Q.6. 57×20

Sol. $57 \times 20 = 57 \times 2 \times 10 = 114 \times 1\textcircled{0} = 1140$

Q.7. 245×20

Sol. $245 \times 20 = 245 \times 2 \times 10$

$= 490 \times 1\textcircled{0} = 4900$

Q.8. 40×50

Sol. $40 \times 50 = 4 \times 10 \times 5 \times 10$

$= 4 \times 5 \times 1\textcircled{0} \times 1\textcircled{0} = 2000$

Q.9. 60×90

Sol. $60 \times 90 = 6 \times 9 \times 1\textcircled{0} \times 1\textcircled{0} = 5400$

Q.10. 46×400

$46 \times 400 = 46 \times 4 \times 100$

$= 184 \times 1\textcircled{00} = 18400$

Q.11. 12×800

Sol. $12 \times 800 = 12 \times 8 \times 100$

$= 96 \times 1\textcircled{00} = 9600$

Q.12. 14×900

Sol. $14 \times 900 = 14 \times 9 \times 100$

$= 126 \times 1\textcircled{00} = 12600$

Exercise 3.5

Without actual multiplication fill in th following blanks.

Q.1. $48 \times$ ________ $= 23 \times 48$

Sol. 23

Q.2. $67 \times 28 = 28 \times$ ________

Sol. 67

Q.3. $76 \times$ ________ $= 39 \times 76$

Sol. 39

Q.4. $283 \times$ ________ $= 283$

Sol. 1

Q.5. $870 \times 1 =$ ________

Sol. 870

Q.6. $392 \times 0 =$ ________

Sol. 0

Q.7. $(6 \times 8) \times 9 = 6 \times ($ ________ $\times 9)$

Sol. 8

Q8. $9 \times (8 \times 20) = (9 \times$ ________ $) \times 20$

Sol. 8

Q.9. $4 \times (6 + 7) = (4 \times 6) + (4 \times$ ________ $)$

Sol. 7

Q.10. $5 \times (20 + 3) = (5 \times$ ______ $) + (5 \times 3)$

Sol. 20

Exercise 3.6

Multiply :

Q.1. $$\begin{array}{r} 9\ 5 \\ \times\ 5\ 3 \\ \hline \\ \hline \end{array}$$

Q.2. $$\begin{array}{r} 7\ 4 \\ \times\ 3\ 9 \\ \hline \\ \hline \end{array}$$

Q.3. $$\begin{array}{r} 2\ 7 \\ \times\ 1\ 8 \\ \hline \\ \hline \end{array}$$

Q.4. $$\begin{array}{r} 8\ 2 \\ \times\ 4\ 6 \\ \hline \\ \hline \end{array}$$

Q.5. $$\begin{array}{r} 7\ 4 \\ \times\ 9\ 3 \\ \hline \\ \hline \end{array}$$

Q.6. $$\begin{array}{r} 7\ 8 \\ \times\ 6\ 8 \\ \hline \\ \hline \end{array}$$

Q.7. $$\begin{array}{r} 2\ 4\ 7 \\ \times\ 3\ 4 \\ \hline \\ \hline \end{array}$$

Q.8. $$\begin{array}{r} 3\ 0\ 4 \\ \times\ 2\ 3 \\ \hline \\ \hline \end{array}$$

Q.9. $$\begin{array}{r} 2\ 8\ 9 \\ \times\ 2\ 8 \\ \hline \\ \hline \end{array}$$

Q.10 $$\begin{array}{r} 1\ 9\ 9 \\ \times\ 4\ 7 \\ \hline \\ \hline \end{array}$$

Q.11. $$\begin{array}{r} 4\ 0\ 7 \\ \times\ 1\ 6 \\ \hline \\ \hline \end{array}$$

Q.12. $$\begin{array}{r} 3\ 8\ 7 \\ \times\ 2\ 4 \\ \hline \\ \hline \end{array}$$

Sol.1. $$\begin{array}{r} 9\ 5 \\ \times\ 5\ 3 \\ \hline 2\ 8\ 5 \\ 4\ 7\ 5\ \times \\ \hline 5\ 0\ 3\ 5 \\ \hline \end{array}$$

Sol.2. $$\begin{array}{r} 7\ 4 \\ \times\ 3\ 9 \\ \hline 6\ 6\ 6 \\ 2\ 2\ 2\ \times \\ \hline 2\ 8\ 8\ 6 \\ \hline \end{array}$$

Sol.3. $$\begin{array}{r} 2\ 7 \\ \times\ 1\ 8 \\ \hline 2\ 1\ 6 \\ 2\ 7\ \times \\ \hline 4\ 8\ 6 \\ \hline \end{array}$$

Sol.4. $$\begin{array}{r} 8\ 2 \\ \times\ 4\ 6 \\ \hline 4\ 9\ 2 \\ 3\ 2\ 8\ \times \\ \hline 3\ 7\ 7\ 2 \\ \hline \end{array}$$

Sol.5. $$\begin{array}{r} 7\ 4 \\ \times\ 9\ 3 \\ \hline 2\ 2\ 2 \\ 6\ 6\ 6\ \times \\ \hline 6\ 8\ 8\ 2 \\ \hline \end{array}$$

Sol.6. $$\begin{array}{r} 7\ 8 \\ \times\ 6\ 8 \\ \hline 6\ 2\ 4 \\ 4\ 6\ 8\ \times \\ \hline 5\ 3\ 0\ 4 \\ \hline \end{array}$$

Sol.7. $$\begin{array}{r} 2\ 4\ 7 \\ \times\ 3\ 4 \\ \hline 9\ 8\ 8 \\ 7\ 4\ 1\ \times \\ \hline 8\ 3\ 9\ 8 \\ \hline \end{array}$$

Sol.8. $$\begin{array}{r} 3\ 0\ 4 \\ \times\ 2\ 3 \\ \hline 9\ 1\ 2 \\ 6\ 0\ 8\ \times \\ \hline 6\ 9\ 9\ 2 \\ \hline \end{array}$$

Sol.9.

$$\begin{array}{cccc} & 2 & 8 & 9 \\ & \times & 2 & 8 \\ \hline 2 & 3 & 1 & 2 \\ 5 & 7 & 8 & \times \\ \hline 8 & 0 & 9 & 2 \\ \hline \end{array}$$

Sol.10

$$\begin{array}{cccc} & 1 & 9 & 9 \\ & \times & 4 & 7 \\ \hline 1 & 3 & 9 & 3 \\ 7 & 9 & 6 & \times \\ \hline 9 & 3 & 5 & 3 \\ \hline \end{array}$$

Sol.11.

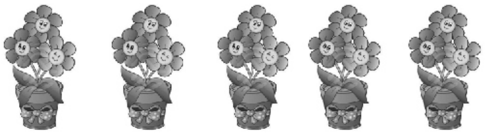
$$\begin{array}{cccc} & 4 & 0 & 7 \\ & \times & 1 & 6 \\ \hline 2 & 4 & 4 & 2 \\ 4 & 0 & 7 & \times \\ \hline 6 & 5 & 1 & 2 \\ \hline \end{array}$$

Sol.12.

$$\begin{array}{cccc} & 3 & 8 & 7 \\ & \times & 2 & 4 \\ \hline 1 & 5 & 4 & 0 \\ 7 & 7 & 0 & \times \\ \hline 9 & 2 & 4 & 0 \\ \hline \end{array}$$

Exercise 3.7

Q.1. Look at the groups of objects and fill in the blanks :



(a) How many flowers are there in all? ____________

(b) How many flowers are there in each pot? ____________

(c) How many pots are there? ____________

(d) How many threes are there in 15? ____________

(e) 15 ÷ 3 = ____________

Sol. (a) 3 × 5 = 15 (b) 3

(c) 5 (d) 5

(e) 5

(e) 5 (15 – 3 = 12, 12 – 3 = 9, 9 – 3 = 6, 6 – 3 = 3, 3 – 3 = 0)

Q.2. Divide using repeated subtraction method:

(a) 16 ÷ 4 (b) 20 ÷ 5

(c) 27 ÷ 9 (d) 28 ÷ 7

Sol. (a) 16 ÷ 4 = 4

16 – 4 = ⑫

12 – 4 = ⑧

8 – 4 = ④

4 – 4 = ⓪

(b) 20 ÷ 5 = 4

20 – 5 = ⑮

15 – 5 = ⑩

10 – 5 = ⑤

5 – 5 = ⓪

(c) 27 ÷ 9 = 3

27 – 9 = ⑱

18 – 9 = ⑨

9 – 9 = ⓪

(d) 28 ÷ 7 = 4

28 – 7 = ㉑

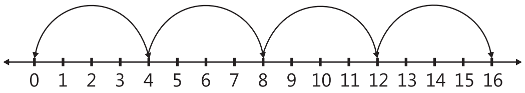
21 – 7 = ⑭

14 – 7 = ⑦

7 – 7 = ⓪

Q.3. Look at the number lines given below and fill in the blanks :

16 ÷ 4 = ☐



Sol. 16 ÷ 4 = 4

Q.4. Write two division facts for each of the following multiplication facts.

(a) 7 × 4 = 28 ⇒ 28 ÷ 4 = 7 (Fact - 1) and 28 ÷ 7 = 4 (Fact - 2)

(b) 5 × 6 = 30 ____________

(c) 7 × 6 = 42 ____________

(d) 9 × 4 = 36 ____________

(e) 8 × 5 = 40 ____________

Sol.

	Fact 1	Fact 2
(a)	28 ÷ 4 = 7	28 ÷ 7 = 4
(b)	30 ÷ 5 = 6	30 ÷ 6 = 5

(c) Fact 1 | Fact 2
$42 \div 7 = 6$ | $42 \div 6 = 7$

(d) Fact 1 | Fact 2
$36 \div 9 = 4$ | $36 \div 4 = 9$

(e) Fact 1 | Fact 2
$40 \div 8 = 5$ | $40 \div 5 = 8$

Q.5. Write the multiplication facts of the following division facts.

(a) $48 \div 8 = 6$ ______________

(b) $54 \div 6 = 9$ ______________

(c) $21 \div 3 = 7$ ______________

(d) $27 \div 3 = 9$ ______________

(e) $24 \div 6 = 4$ ______________

Sol. (a) Fact 1 | Fact 2
$8 \times 6 = 48$ | $6 \times 8 = 48$

(b) Fact 1 | Fact 2
$6 \times 9 = 54$ | $9 \times 6 = 54$

(c) Fact 1 | Fact 2
$3 \times 7 = 21$ | $7 \times 3 = 21$

(d) Fact 1 | Fact 2
$3 \times 9 = 27$ | $9 \times 3 = 27$

(e) Fact 1 | Fact 2
$4 \times 6 = 24$ | $6 \times 4 = 24$

Q.6. Find the quotient when :

(a) $40 \div 5$ (b) $45 \div 5$

(c) $36 \div 6$ (d) $48 \div 6$

(e) $56 \div 7$ (f) $64 \div 8$

(g) $72 \div 8$ (h) $81 \div 9$

Sol. (a) 5) 40 (8 $\boxed{Q = 8}$
40
×

(b) 5) 45 (9 $\boxed{Q = 9}$
45
×

(c) 6) 36 (6 $\boxed{Q = 6}$
36
×

(d) 6) 48 (8 $\boxed{Q = 8}$
48
×

(e) 7) 56 (8 $\boxed{Q = 8}$
56
×

(f) 8) 64 (8 $\boxed{Q = 8}$
64
×

(g) 8) 72 (9 $\boxed{Q = 9}$
72
×

(h) 9) 81 (9 $\boxed{Q = 9}$
81
×

Q.7. A man given 24 bananas to 4 children's equally. How many bananas does each child get?

Sol. Total bananas = 24
Total children = 4
Each child get bananas = $24 \div 4$
= 6 bananas

4) 24 (6
24
×

Q.8. Vijay has 54 meters of rope. He cuts it into 6 equal pieces. What is the length of each piece?

Sol. Length of rope = 54 metres
Parts of rope = 6 parts
Length of each part = $54 \div 6$
= 9

6) 54 (9
54
×

Q.9. Rohan have 65 books and he can keep 5 books in one shelf. How many shelves does he need in his almirah?

Sol. Total book = 65
Books in one self = 5
No. of shelfes = $65 \div 5$
= 13 shells

5) 65 (13
15
15
×

Q.10. Rinki has 28 toys. She puts them equally in 7 boxes. How many toys are there in each box?

Sol. Rinki's toys = 28
No. of boxes = 7
Toys in each = $28 \div 7$
= 4 toys

7) 28 (4
28
×

Exercise 3.8

Q.1. Divide and find the quotient :

(a) $48 \div 4$ (b) $93 \div 3$

(c) $306 \div 3$ (d) $2468 \div 2$

(e) $920 \div 8$ (f) $805 \div 7$

(g) $5601 \div 3$ (h) $8064 \div 7$

Sol. (a) 4) 48 (12
4
8 $\boxed{Q = 12}$
8
×

(b) 3) 93 (31
9
3 $\boxed{Q = 31}$
3
×

(c) 3)306(102
3
06
6
×
$\boxed{Q = 102}$

(d) 2)2468(1234
2
4
4
6
6
8
8
×
$\boxed{Q = 1234}$

(e) 8)920(115
8
12
8
40
40
×
$\boxed{Q = 115}$

(f) 7)805(115
7
10
7
35
35
×
$\boxed{Q = 115}$

(g) 3)5601(1867
3
26
24
20
18
21
21
×
$\boxed{Q = 1867}$

(h) 7)8064(1152
7
10
7
36
35
14
14
×
$\boxed{Q = 1152}$

Q.2. Answer the following word problems :

(a) How many times can you take away 8 from 368?

(b) A man distributed ₹ 1101 equally among his three sons. How much money did each son get?

Sol. (a) 368 ÷ 8 = 46 times

8)368(46
32
48
48
×

Hence, we can take away 8, 46 times from 368.

(b) Total money = ₹ 1101

Part of money to be done = 3

∴ Each son will get = 1101 ÷ 3

= ₹ 367

3)1101(367
9
20
18
21
21
×

Q.3. Find the quotient and remainder. Also check your answer in each case :

(a) 487 ÷ 6
(b) 479 ÷ 9
(c) 615 ÷ 9
(d) 1023 ÷ 7
(e) 4756 ÷ 8
(f) 5938 ÷ 9

Sol.

Question	Answer	Check
(a) 487 ÷ 6	6)487(81 48 7 6 1 $\boxed{Q = 81 \\ R = 1}$	6 × 81 + 1 = 486 + 1 = **487** Correct
(b) 479 ÷ 9	9)479(53 45 29 27 2 $\boxed{Q = 53 \\ R = 2}$	9 × 53 + 2 = 477 + 2 = **479** Correct
(c) 615 ÷ 9	9)615(68 54 75 72 3 $\boxed{Q = 68 \\ R = 3}$	9 × 68 + 3 = 612 + 3 = **615**
(d) 1023 ÷ 7	7)1023(146 7 32 28 43 42 1 $\boxed{Q = 146 \\ R = 1}$	146 × 7 + 1 = 1022 + 1 = **1023**
(e) 4756 ÷ 8	8)4756(594 40 75 72 36 32 4 $\boxed{Q = 594 \\ R = 4}$	594 × 8 + 4 = 4752 + 4 = 4752 + 4 = **7756**
(f) 5938 ÷ 9	9)5938(659 54 53 45 88 81 7 $\boxed{Q = 659 \\ R = 7}$	659 × 9 + 7 = 5931 + 7 = **5938**

Q.4. Arrange the following word problems :

(a) 5288 bulbs are to be packed equally in 7 cartons. How many bulbs are there in each carton? How many bulbs are left?

(b) A pen costs ₹ 9. A man had ₹ 1454 with him with which he bought as many pens are he could. How many pens did he buy and how much money is left with him?

Sol. (a) Total bulbs = 5288

Total cartons = 7

Bulbs in each carton

= 5288 ÷ 7 = 755 cartons

+ 3 bulb lefted

$$\begin{array}{r} 7\overline{)5288}(755 \\ \underline{49} \\ 38 \\ \underline{35} \\ 38 \\ \underline{35} \\ 3 \end{array}$$

(b) Cost of one pen = ₹ 9

Man had = ₹ 1454

No. of pens = ₹ 1454 ÷ 9

= 161 pens

+ 5 pens lefted

$$\begin{array}{r} 9\overline{)1454}(161 \\ \underline{9} \\ 55 \\ \underline{54} \\ 14 \\ \underline{9} \\ 5 \end{array}$$

Must Practice Exercise 3

Q.1. Fill in the missing numerals :

(a) 2 × 7 = ___ (b) 3 × 6 = ___

(c) 4 × 6 = ___ (d) 5 × 7 = ___

(e) 6 × 9 = ___ (f) 7 × 8 = ___

(g) 8 × 3 = ___ (h) 9 × 7 = ___

Sol. (a) 14 (b) 18

(c) 24 (d) 35

(e) 54 (f) 56

(g) 24 (h) 63

Q.2. Find the product :

(a)
$$\begin{array}{rr} T & O \\ 2 & 3 \\ \times & 3 \\ \hline & \\ \hline \end{array}$$

(b)
$$\begin{array}{rr} T & O \\ 3 & 2 \\ \times & 3 \\ \hline & \\ \hline \end{array}$$

(c)
$$\begin{array}{rr} T & O \\ 4 & 1 \\ \times & 7 \\ \hline & \\ \hline \end{array}$$

(d)
$$\begin{array}{rrr} & T & O \\ & 9 & 3 \\ \times & 8 & 2 \\ \hline & & \\ \hline \end{array}$$

(e)
$$\begin{array}{rrr} & T & O \\ & 7 & 2 \\ \times & 6 & 4 \\ \hline & & \\ \hline \end{array}$$

(f)
$$\begin{array}{rrr} & T & O \\ & 9 & 3 \\ \times & 8 & 2 \\ \hline & & \\ \hline \end{array}$$

(g)
$$\begin{array}{rrr} H & T & O \\ 2 & 2 & 4 \\ \times & 4 & 8 \\ \hline & & \\ \hline \end{array}$$

(h)
$$\begin{array}{rrr} H & T & O \\ 3 & 1 & 8 \\ \times & 2 & 8 \\ \hline & & \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rr} T & O \\ 2 & 3 \\ \times & 3 \\ \hline 6 & 9 \\ \hline \end{array}$$

(b)
$$\begin{array}{rr} T & O \\ 3 & 2 \\ \times & 3 \\ \hline 9 & 6 \\ \hline \end{array}$$

(c)
$$\begin{array}{rrr} & T & O \\ & 4 & 1 \\ & \times & 7 \\ \hline 2 & 8 & 7 \\ \hline \end{array}$$

(d)
$$\begin{array}{rrr} & T & O \\ & 9 & 3 \\ \times & 8 & 2 \\ \hline 3 & 5 & 1 \\ \hline \end{array}$$

(e)
$$\begin{array}{rrrr} & & T & O \\ & & 7 & 2 \\ & \times & 6 & 4 \\ \hline & 2 & 8 & 8 \\ 4 & 3 & 2 & \times \\ \hline 4 & 6 & 0 & 8 \\ \hline \end{array}$$

(f)
$$\begin{array}{rrrr} & & T & O \\ & & 9 & 3 \\ & \times & 8 & 2 \\ \hline & 1 & 8 & 6 \\ 7 & 4 & 4 & \times \\ \hline 7 & 6 & 2 & 6 \\ \hline \end{array}$$

(g)
$$\begin{array}{rrrrr} & & H & T & O \\ & & 2 & 2 & 4 \\ & & \times & 4 & 8 \\ \hline & 1 & 7 & 9 & 2 \\ & 8 & 9 & 6 & \times \\ \hline 1 & 0 & 7 & 5 & 2 \\ \hline \end{array}$$

(h)
$$\begin{array}{rrrr} & H & T & O \\ & 3 & 1 & 8 \\ & \times & 2 & 8 \\ \hline 2 & 5 & 4 & 4 \\ 6 & 3 & 6 & \times \\ \hline 8 & 9 & 0 & 4 \\ \hline \end{array}$$

Q.3. Fill in the blanks.

(a) 12 × 9 = ___ (b) 13 × 8 = ___

(c) 14 × 6 = ___ (d) 15 × 9= ___

(e) 16 × 4= ___ (f) 17 × 6= ___

Sol. (a) 108 (b) 104

(c) 84 (d) 135

(e) 64 (f) 102

Q.4. Look at the patterns and complete them :

(a) 3, 6, 9, ___ , ___ , ___ ,

(b) 5, 10, 15, ___ , ___ , ___ ,

(c) 10, 20, 30, ___ , ___ , ___ ,

(d) 15, 30, 45, ___ , ___ , ___ ,

Sol. (a) 12, 15, 18 (add 3)

(b) 20, 25, 30 (add 5)

(c) 40, 50, 60, (add 10)

(d) 60, 75, 90 (add 15)

Q.5. Find the products of the following :

(a) 689×10	(b) 84×100
(c) 7×1000	(d) 74×40
(e) 61×60	(f) 38×200
(g) 27×300	(h) 14×600

Sol. (a) $689 \times 1\textcircled{0} = 6890$

(b) $84 \times 1\textcircled{00} = 8400$

(c) $7 \times 1\textcircled{000} = 7000$

(d) $74 \times 40 = 74 \times 4 \times 10$
$= 296 \times 1\textcircled{0} = 2960$

(e) $61 \times 60 = 61 \times 6 \times 10 = 366 \times 1\textcircled{0} = 3660$

(f) $38 \times 200 = 38 \times 2 \times 100$
$= 76 \times 1\textcircled{00} = 7600$

(g) $27 \times 300 = 27 \times 3 \times 100$
$= 81 \times 1\textcircled{00} = 8100$

(h) $14 \times 600 = 14 \times 6 \times 100$
$= 84 \times 1\textcircled{00} = 8400$

Q.6. Fill in the blanks by using appropriate property.

(a) _______ $\times 96 = 96 \times 27$

(b) $1 \times 986 =$ _______

(c) $0 \times 263 =$ _______

(d) _______ $\times 271 = 271$

(e) $39 \times 84 =$ _______ $\times 39$

(f) $7 \times (6 \times 3) = (7 \times$ _______$) \times 3$

(g) $5 \times (10 + 6) = (5 \times 10) + (5 \times$ _______$)$

(h) $3 \times (5 \times 7) = (3 \times 5) \times$ _______

(i) $6 \times (30 + 9) = (6 \times$ _______$) + (6 \times$ _______$)$

Sol.

(a) 27	(b) 986
(c) 0	(d) 1
(e) 84	(f) 6
(g) 6	(h) 7

(i) 30, 9

Q.7. Divide using the repeated subtraction method :

(a) $12 \div 3$	(b) $16 \div 4$
(c) $20 \div 5$	(d) $18 \div 6$
(e) $28 \div 7$	(f) $24 \div 8$
(g) $27 \div 9$	(h) $30 \div 5$

Sol. (a) $12 \div 3 =$ **4**

$12 - 3 = \textcircled{9}$
$9 - 3 = \textcircled{6}$
$6 - 3 = \textcircled{3}$
$3 - 3 = \textcircled{0}$

(a) $16 \div 4 =$ **16**

$16 - 4 = \textcircled{12}$
$12 - 4 = \textcircled{8}$
$8 - 4 = \textcircled{4}$
$4 - 4 = \textcircled{0}$

(c) $20 \div 5 =$ **5**

$20 - 5 = \textcircled{15}$
$15 - 5 = \textcircled{10}$
$10 - 5 = \textcircled{5}$
$5 - 5 = \textcircled{0}$

(d) $18 \div 6 =$ **3**

$18 - 6 = \textcircled{12}$
$12 - 6 = \textcircled{6}$
$6 - 6 = \textcircled{0}$

(e) $28 \div 7 =$ **4**

$28 - 7 = \textcircled{21}$
$21 - 7 = \textcircled{14}$
$14 - 7 = \textcircled{7}$
$7 - 7 = \textcircled{0}$

(f) $18 \div 6 =$ **3**

$24 - 8 = \textcircled{16}$
$16 - 8 = \textcircled{8}$
$8 - 8 = \textcircled{0}$

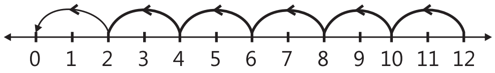
(g) $27 \div 9 =$ **3**

$27 - 9 = \textcircled{18}$
$18 - 9 = \textcircled{9}$
$9 - 9 = \textcircled{0}$

(h) $30 \div 5 =$ **6**

$30 - 5 = \textcircled{25}$
$25 - 5 = \textcircled{20}$
$20 - 5 = \textcircled{15}$
$15 - 5 = \textcircled{10}$
$10 - 5 = \textcircled{5}$
$5 - 5 = \textcircled{0}$

Q.8. Look at the number lines given below and fill in the blanks.



12 ÷ 2 = _____

Sol. 12 ÷ 2 = 6

Q.9. Write two division facts for each of the following multiplication facts :

(a) 9 × 2 = 18 (b) 7 × 4 = 28

(c) 8 × 5 = 40

Sol.

Multiplication		**Fact 1**	**Fact 2**
(a)	9 × 2 = 18	18 ÷ 2 = 9	18 ÷ 9 = 2
(b)	7 × 4 = 28	28 ÷ 4 = 7	28 ÷ 7 = 4
(c)	8 × 5 = 40	40 ÷ 5 = 8	40 ÷ 8 = 5

Q.10. Write the multiplication facts of the following division facts :

(a) 21 ÷ 3 = 7 (b) 25 ÷ 5 = 5

(c) 54 ÷ 6 = 9

Sol.

Division		**Fact 1**	**Fact 2**
(a)	21 ÷ 3 = 7	3 × 7 = 21	7 × 3 = 21
(b)	25 ÷ 5 = 5	5 × 5 = 25	5 × 5 = 25
(c)	54 ÷ 6 = 9	6 × 9 = 54	9 × 6 = 54

Q.11. A tailor has 72 buttons. He puts 6 buttons on one shirt. How many shirts can he make with these buttons?

Sol. Total buttons = 72

Buttons in one shirt = 6

No. of shirts = 72 ÷ 6 = 12 shirts

6) 72 (12
6
12
12
×

Q.12. A squirrel jumps 2 steps at a time. How many jumps will it take to cover 18 steps?

Sol. In one jumps, it covers = 2 steps

No. of jumps to covers 18 steps

= 18 ÷ 2 = 9 jumps

Q.13. Manu takes 4 minutes to make one chapati. How many chapatis will she make in 36 minutes?

Sol. No. of chapatis, make in 4 min = 1

No. of chapatis, make in 36 min = 36 × $\frac{1}{4}$

= 36 ÷ 4 = 9 chapatis

4) 36 (9
36
×

Q.14. Divide and find the quotient :

(a) 64 ÷ 2 (b) 36 ÷ 3

(c) 80 ÷ 4 (d) 66 ÷ 6

(e) 363 ÷ 3 (f) 408 ÷ 4

(g) 2604 ÷ 2 (h) 8462 ÷ 2

Sol. (a) 2) 64 (32
6
4
4
×
$\boxed{Q = 32}$

(b) 3) 36 (12
3
6
6
×
$\boxed{Q = 12}$

(c) 4) 80 (20
8
0
0
×
$\boxed{Q = 20}$

(d) 6) 66 (11
6
6
6
×
$\boxed{Q = 11}$

(e) 3) 363 (121
3
6
6
3
3
×
$\boxed{Q = 121}$

(f) 4) 408 (102
4
0
0
8
8
×
$\boxed{Q = 108}$

(g) 2) 2604 (1302
2
6
6
0
0
4
4
×
$\boxed{Q = 1302}$

(h) 2) 8462 (4231
8
4
4
6
6
2
2
×
$\boxed{Q = 4231}$

Q.15. 9 shirts cost ₹ 864. What is the cost of one shirt?

Sol. Cost of 9 shirts = ₹ 864

Cost of 1 shirt = ₹ 864 ÷ 9
= ₹ 96

9)864(96
81
54
54
×

Q.16. A pen costs ₹ 16. How many such pens can be purchased for ₹ 768?

Sol. Cost of one pen = ₹ 16
Total money = ₹ 768
No. of pens purchased by ₹ 768
= ₹ 768 ÷ ₹ 16 = 48 pens

16)768(48
64
128
128
×

Q.17. How many bundles of 10 pencils each can be formed from 144 pencils? How many pencils are left?

Sol. Pencil in one bundle = 10
Total pencils = 144
No. of bundles = 144 ÷ 10
= 14 bundles + 4 lefted

10)144(14
10
×4
40
4

Q.18. 408 exercise books were divided equally among 10 boys. How many will each get and how many exercise books remain?

Sol. Total boys = 10
Total books = 408
Each boy get
= 408 ÷ 10 = 40 bundles
+ 8 lefted

10)408(4
40
8

Click Type Question

Tick (✔) the correct answer :

Q.1. Which of the following is equal to 106 × 40?
(a) (100 × 4) + (6 × 4)
(b) 100 × 4) + (6 × 40)
(c) (100 + 40) × (6 + 40)
(d) (100 × 40) + (6 × 40)

Sol. (d) 106 × 40 = (100 + 6) × 40
= (100 × 40) + (6 × 40)

Q.2. The product of the greatest 3-digit number and the greatest 1-digit number is :

(a) 999	(b) 1997
(c) 8991	(d) 9990

Sol. (c)

⑧ ⑧ ○
9 9 9
× 9
8 9 9 1

Q.3. The product of 122 and 5 is :

(a) 710	(b) 720
(c) 610	(d) 620

Sol. (c)

① ① ○
1 2 2
× 5
6 1 0

Q.4. In the multiplication A7 x 4 = 68, the value of 4A is

(a) 2	(b) 3
(c) 4	(d) 6

Sol. (c) A7 × 4 = 68

$$\frac{A7 \times 4}{4} = \frac{\cancel{68}^{17}}{\cancel{4}}$$

Ⓐ 7 = ① 7

On compare, A = 1
∴ 4 A = 4 × 1 = 4

Q.5. Division is a process of repeated _______

(a) addition	(b) subtraction
(c) multiplication	(d) none of these

Sol. (b) Subtraction

Q.6. Dividend =
(a) remainder × quotient + divisor
(b) quotient × divisor + remainder
(c) quotient + divisor × remainder
(d) none of these

Sol. (b) quotient × divisor + remainder

Q.7. If 94 is divided by 4, the remainder is :

(a) 0	(b) 2
(c) 4	(d) 5

Sol. (b)

4)94(23
8
14
12
2

Q = 23
R = 2

Q.8. Out of the following divisions, one has a different quotient. Which is it?

(a) 12 ÷ 4 (b) 24 ÷ 8
(c) 36 ÷ 9 (d) 15 ÷ 5

Sol. (c) $9\overline{)36}(4$
36
$\overline{\times}$

All are 3, but here quotient is 4.

Q.9. The number of weeks in 91 days is :
(a) 7 (b) 13
(c) 17 (d) 73

Sol. (b) Days in one week = 7
Weeks in 91 days = 91 ÷ 7
= 13 weeks

$7\overline{)91}(13$
7
$\overline{21}$
21
$\overline{\times}$

Q.10. 0 * 12 = 0; will be true if * is replaced by :
(a) × or ÷ (b) + or ÷
(c) + or – (d) × or +

Sol. (a)

$$\begin{tikzcd} & 0 * 12 = 0 \arrow[dl] \arrow[dr] & \\ 0 \times 12 = 0 \text{ (True)} & & 0 \div 12 = 0 \text{ (True)} \end{tikzcd}$$

∴ * may × or ÷

Chapter 4 Vedic Mathematics

Exercise 4.1

Q.1. Ekadhiken (one more than previous one) :

Sol. (a) $\dot{3} = 3 + 1 = 4$

(b) $\dot{2} = 2 + 1 = 3$

(c) $\dot{8} = 8 + 1 = 9$

(d) $\dot{6} = 6 + 1 = 7$

(e) $\dot{5} = 5 + 1 = 6$

(f) $2\dot{0} = 20 + 1 = 21$

(g) $\dot{3}4 = 34 + 10 = 44$

(h) $\dot{6}9 = 69 + 10 = 79$

(i) $\dot{8}3 = 83 + 10 = 93$

(j) $\dot{5}2 = 52 + 10 = 62$

(k) $\dot{6}6 = 66 + 10 = 76$

(l) $\dot{4}7 = 47 + 10 = 57$

(m) $\dot{8}9 = 89 + 10 = 99$

(n) $\dot{9}3 = 93 + 10 = 103$

(o) $\dot{9}9 = 99 + 10 = 109$

(p) $\dot{7}1 = 71 + 10 = 81$

Q.2. Eknunen (one less than previous one) :

Sol. (a) $\underset{\bullet}{4} = 4 - 1 = 3$

(b) $1\underset{\bullet}{9} = 19 - 1 = 18$

(c) $\underset{\bullet}{6} = 6 - 1 = 5$

(d) $\underset{\bullet}{8} = 8 - 1 = 7$

(e) $1\underset{\bullet}{0} = 10 - 1 = 9$

(f) $1\underset{\bullet}{8} = 18 - 1 = 17$

(g) $\underset{\bullet}{1}3 = 13 - 10 = 3$

(h) $\underset{\bullet}{3}4 = 34 - 10 = 24$

(i) $\underset{\bullet}{6}1 = 61 - 10 = 51$

(j) $\underset{\bullet}{9}7 = 97 - 10 = 87$

(k) $\underset{\bullet}{7}5 = 75 - 10 = 65$

(l) $\underset{\bullet}{8}7 = 87 - 10 = 77$

(m) $\underset{\bullet}{7}9 = 79 - 10 = 69$

(n) $\underset{\bullet}{6}3 = 63 - 10 = 53$

(o) $\underset{\bullet}{5}9 = 59 - 10 = 49$

(p) $\underset{\bullet}{9}0 = 90 - 10 = 80$

Chapter 5 Indian Currency

Exercise 5.1

Q.1. Write the following amounts of money in words :
(a) ₹ 8.36 = ____________________
(b) ₹ 18.05 = ____________________
(c) ₹ 69.50 = ____________________
(d) ₹ 62.35 = ____________________

Sol. (a) Eight rupees and thirty-six paise
(b) Eighteen rupees and five paise
(c) Sixty-nine rupees and fifty paise
(d) Sixty-two rupees and thirty-five paise

Q.2. Write the following amounts of money in figures :
(a) Fifty rupees and thirty paise

____

(b) Sixty-nine rupees and fifty paise

____

(c) Forty-eight rupees and fifty-five paise

____

(d) Thirty rupees and forty-three paise

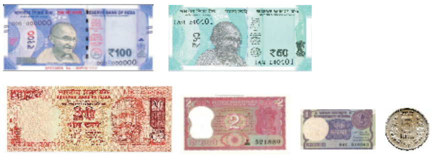
____

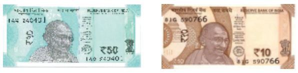
Sol. (a) ₹ 50.30 (b) ₹ 69.50
(c) ₹ 48.55 (b) ₹ 30.43

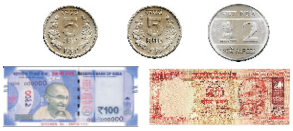
Q.3. Complete the blanks :
(a) There are ____________ 10 p in ₹ 10.
(b) There are ____________ ₹ 10 in ₹ 200.
(c) There are ____________ 25 p in ₹ 4.
(d) There are ____________ ₹ 5 in ₹ 60.

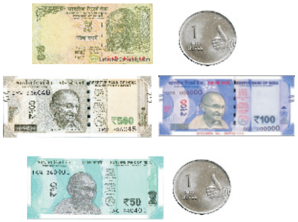
Sol. (a) One hundred (b) Twenty
(c) Sixteen (d) Twelve

Q.4. Add the given notes and coins in each row and write your answers in words and figures :

(a)


(b)


(c)


(d)


Sol. (a) One hundred seventy-eight = ₹ 178
(b) Seventy two = ₹ 72
(c) One hundred twenty six = ₹ 126
(d) Six hundred fifty one = ₹ 651

Exercise 5.2

Q.1. Convert each of the following into paise :
(a) ₹ 6 = __________ p
(b) ₹ 20 = __________ p
(c) ₹ 7.80 = __________ p
(d) ₹ 8.40 = __________ p
(e) ₹ 26.90 = __________ p
(f) ₹ 6.75 __________ p
(g) ₹ 4 = __________ p
(h) ₹ 46.50 = __________p

Sol. (a) 600 (b) 2000 (c) 780 (d) 840
(e) 2690 (f) 675 (g) 400 (h) 4650

Q.2. Convert the following into rupees and paise :
(a) 8005p = ₹ _______ = _______ rupees and _______ paise
(b) 153p = ₹ _______ = _______ rupees and _______ paise
(c) 260p = ₹ _______ = _______ rupees and _______ paise
(d) 1640p = ₹ _______ = _______ rupees and _______ paise
(e) 4010p = ₹ _______ = _______ rupees and _______ paise
(f) 2020p = ₹ _______ = _______ rupees and _______ paise

Sol. (a) ₹ 80.05 = eighty, five
(b) ₹ 1.53 = one, fifty-three
(c) ₹ 2.60 = two, sixty
(d) ₹ 16.40 = sixteen, fourty
(e) ₹ 40.10 = forty, ten
(f) ₹ 20.20 = twenty, twenty

Exercise 5.3

Q.1. Add the following amounts by converting into paise :
(a) 49 rupees 75 paise and 9 rupees 65 paise
(a) 64 rupees 6 paise and 36 rupees 9 paise

Sol. (a)

$$\begin{array}{rr} \text{₹} & \text{p} \\ \text{①①} & \text{①○} \\ 4\ 9 & 7\ 5 \\ +\quad 9 & 6\ 5 \\ \hline 5\ 9 & 4\ 0 \\ \hline \end{array}$$

₹ 59.40 = 59.40 × 100 p
= 5940 p

(b)

$$\begin{array}{rr} \text{₹} & \text{p} \\ \text{①○} & \text{①○} \\ 6\ 4 & 0\ 6 \\ +\ 3\ 6 & 0\ 9 \\ \hline 1\ 0\ 0 & 1\ 5 \\ \hline \end{array}$$

₹ 100.15 = 100.15 × 100 p
= 10015 p

Q.2. Add the following amounts :

(a)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 53.65 \\ +\,39.78 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 283.56 \\ +\,49.84 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 537.85 \\ +\,68.29 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 63.75 \\ 79.05 \\ +\,52.80 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 103.55 \\ 287.65 \\ +\,8.05 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 684.55 \\ 189.65 \\ +\,9.07 \\ \hline \\ \hline \end{array}$$

(g) ₹ 457.95, ₹ 7.77 and ₹ 66.85

(h) ₹ 99.90, ₹ 9.90 and ₹ 0.95

(i) 90 paise, 85 paise and 102 rupees 45 paise.

(j) 101 rupees 50 paise, 76 rupees 35 paise, 5 rupees 5 paise and 65 paise.

Sol. (a)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①①}\ \text{①○} \\ 53.65 \\ +\,39.78 \\ \hline 93.43 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①①}\ \text{①○} \\ 283.56 \\ +\,49.84 \\ \hline 333.40 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①①①}\ \text{①○} \\ 537.85 \\ +\,68.29 \\ \hline 606.14 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①①}\ \text{①○} \\ 63.75 \\ 79.05 \\ +\,52.80 \\ \hline 195.60 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①①}\ \text{①○} \\ 103.55 \\ 287.65 \\ +\,8.05 \\ \hline 399.25 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①②①}\ \text{①○} \\ 684.55 \\ 189.65 \\ +\,9.07 \\ \hline 883.27 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①②②}\ \text{①○} \\ 457.95 \\ 7.77 \\ +\,66.85 \\ \hline 532.57 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{②②}\ \text{○○} \\ 99.90 \\ 9.90 \\ +\,0.95 \\ \hline 110.75 \\ \hline \end{array}$$

(i)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{②}\ \text{①○} \\ 0.90 \\ 0.85 \\ +\,102.45 \\ \hline 104.20 \\ \hline \end{array}$$

(j)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{①①}\ \text{①○} \\ 101.50 \\ 76.35 \\ 5.05 \\ +\,0.65 \\ \hline 183.55 \\ \hline \end{array}$$

Exercise 5.4

Q.1. Subtract the following amounts by converting them into paise.

(a) 29 rupees 85 paise from 37 rupees 40 paise.

(b) 68 rupees 36 paise from 200 rupees 5 paise

Sol. (a)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑯}\ \ \text{⑬}\ \ \\ \text{②⑥}\ \text{③⑩} \\ 37.40 \\ -\,29.85 \\ \hline 7.55 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑨⑨}\ \ \text{⑨}\ \ \\ \text{①⑩⑯}\ \text{⑩⑮} \\ 200.05 \\ -\,68.36 \\ \hline 131.69 \\ \hline \end{array}$$

Q.2. Subtract :

(a)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 68.75 \\ -\,29.90 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 100.00 \\ -\,74.65 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 315.40 \\ -\,278.68 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 218.34 \\ -\,91.76 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 600.20 \\ -\,183.54 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ 309.06 \\ -\,111.08 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑰}\qquad\ \ \\ \text{⑤⑦}\ \text{⑰○} \\ 68.75 \\ -\,29.90 \\ \hline 38.85 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑨⑨}\ \ \ \text{⑨}\ \ \\ \text{⑩⑩}\ \text{⑩⑩} \\ 100.00 \\ -\,74.65 \\ \hline 25.35 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑩⑭}\ \text{⑬}\ \ \\ \text{②⓪④}\ \text{③⑩} \\ 315.40 \\ -\,278.68 \\ \hline 36.72 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑫}\ \ \\ \text{①⑪⑦}\ \text{②⑭} \\ 218.34 \\ -\,91.76 \\ \hline 126.56 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑨⑨}\ \text{⑪}\ \ \\ \text{⑤⑩⑩}\ \text{①⑩} \\ 600.20 \\ -\,183.54 \\ \hline 416.66 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} \text{₹}\quad \text{p} \\ \text{⑨}\ \ \\ \text{②⑩⑧}\ \text{⑩⑯} \\ 309.06 \\ -\,111.08 \\ \hline 197.98 \\ \hline \end{array}$$

Q.3. Find the difference between the following amounts.

(a) ₹ 0.86 and ₹ 1.05

(b) ₹ 8.08 and ₹ 0.29

Sol. (a)

$$\begin{array}{r} \text{₹}\quad\ \text{p} \\ \textcircled{9}\ \ \\ \textcircled{0}\ \ \textcircled{10}\textcircled{15} \\ 1\ .\ 0\ 5 \\ -\ 0\ .\ 8\ 6 \\ \hline 0\ .\ 1\ 9 \\ \hline \end{array}$$

(b)

$$\begin{array}{r} \text{₹}\quad\ \text{p} \\ \textcircled{9}\ \ \\ \textcircled{7}\ \ \textcircled{10}\textcircled{18} \\ 8\ .\ 0\ 8 \\ -\ 0\ .\ 2\ 9 \\ \hline 7\ .\ 7\ 9 \\ \hline \end{array}$$

Exercise 5.5

Q.1. Sakshi has to buy a packet of pencil for ₹ 18.50 and a pen for ₹ 7.75. How much money does she need?

Sol.

$$\begin{array}{rr} & \textcircled{1}\,\textcircled{1}\quad \bigcirc\bigcirc \\ \text{Cost of pencils packet =} & \text{₹}\ 1\ 8\ .\ 5\ 0 \\ \text{Cost of a pen =} & +\text{₹}\quad 7\ .\ 7\ 5 \\ \hline \text{Total amount =} & \text{₹}\ 2\ 6\ .\ 2\ 5 \\ \hline \end{array}$$

Q.2. Minu purchased a doll for ₹ 85.50 and a drum for ₹ 117.75 from a toy-shop. How much did she spend?

Sol.

$$\begin{array}{rr} & \textcircled{1}\,\textcircled{1}\,\textcircled{1}\quad \bigcirc\bigcirc \\ \text{Cost of a doll =} & \text{₹}\quad 8\ 5\ .\ 5\ 0 \\ \text{Cost of a drum =} & +\ \text{₹}\ 1\ 1\ 7\ .\ 7\ 5 \\ \hline \text{Total cost =} & \text{₹}\ 2\ 0\ 3\ .\ 2\ 5 \\ \hline \end{array}$$

Q.3. Timtim spent ₹ 15.88 on book, ₹ 8.50 on a packet of stickers and ₹ 5.50 to buy a pencil. How much did she spend in all?

Sol.

$$\begin{array}{rr} & \textcircled{1}\,\textcircled{1}\quad \bigcirc\bigcirc \\ \text{Cost of book =} & \text{₹}\ 1\ 5\ .\ 8\ 8 \\ \text{Cost of a packet of stickers =} & \text{₹}\quad 8\ .\ 5\ 0 \\ \text{Cost of a pencil =} & +\ \text{₹}\quad 5\quad 5\ 0 \\ \hline \text{Total amount =} & \text{₹}\ 2\ 9\ .\ 8\ 8 \\ \hline \end{array}$$

Q.4. On her birthday, Pinki got ₹ 101.50 from her mother and ₹ 98.75 from her sister. How much money did she get in all?

Sol.

$$\begin{array}{rr} & \textcircled{1}\,\textcircled{1}\,\textcircled{1}\quad \bigcirc\bigcirc \\ \text{Mother gave money =} & \text{₹}\ 1\ 0\ 1\ .\ 5\ 0 \\ \text{Sister gave money =} & +\ \text{₹}\quad 9\ 8\ .\ 7\ 5 \\ \hline \text{Total money =} & \text{₹}\ 2\ 0\ 0\ .\ 2\ 5 \\ \hline \end{array}$$

Q.5. A packet of chips costs ₹ 10.00, cococola bottle costs ₹ 22.65 and a toffee packet costs ₹ 14.50. Find the total cost.

Sol.

$$\begin{array}{rr} & \bigcirc\,\textcircled{1}\quad \bigcirc\bigcirc \\ \text{Cost of a packet of chips =} & \text{₹}\ 1\ 0\ .\ 0\ 0 \\ \text{Cost of coca cola bottle =} & \text{₹}\ 2\ 2\ .\ 6\ 5 \\ \text{Cost of a toffee packet =} & +\ \text{₹}\ 1\ 4\ .\ 5\ 0 \\ \hline \text{Total cost =} & \text{₹}\ 4\ 7\ .\ 5\ 0 \\ \hline \end{array}$$

Q.6. By how much is ₹ 36.44 less than ₹ 60.20?

Sol. Let x is ₹ 36.44 less than ₹ 60.20 then

x = ₹ 60.20 – ₹ 36.44

x = ₹ 23.76

$$\begin{array}{r} \text{₹}\qquad\ \text{p} \\ \textcircled{9}\quad\textcircled{11}\ \\ \textcircled{5}\textcircled{10}\quad\textcircled{1}\textcircled{10} \\ 6\ 0\ .\ 2\ 0 \\ -\ 3\ 6\ .\ 4\ 4 \\ \hline 2\ 3\ .\ 7\ 6 \\ \hline \end{array}$$

Q.7. Subtract the difference of ₹ 110 and ₹ 80.30 from ₹ 60.15.

Sol. Difference of ₹ 110 and ₹ 80.30

$$\begin{array}{r} \text{₹}\qquad\ \text{p} \\ \textcircled{10}\textcircled{9}\qquad \\ \textcircled{0}\textcircled{0}\textcircled{10}\ \ \textcircled{10}\bigcirc \\ \text{₹}\ 1\ 1\ 0\ .\ 0\ 0 \\ -\ \text{₹}\quad 8\ 0\ .\ 3\ 0 \\ \hline \text{₹}\quad 2\ 9\ .\ 7\ 0 \\ \hline \end{array}$$

Subtraction of ₹ 29.70 from ₹ 60.15

$$\begin{array}{r} \text{₹}\qquad\ \text{p} \\ \textcircled{9}\qquad\quad \\ \textcircled{5}\textcircled{10}\quad\textcircled{11}\bigcirc \\ 6\ 0\ .\ 1\ 5 \\ -\ 2\ 9\ .\ 7\ 0 \\ \hline 3\ 0\ .\ 4\ 5 \\ \hline \end{array}$$

Q.8. Subtract the difference of ₹ 183.25 and ₹ 164.48 from ₹ 50.

Sol. Difference of ₹ 183.25 and ₹ 164.48

$$\begin{array}{r} \text{₹}\qquad\ \text{p} \\ \textcircled{12}\quad\textcircled{11}\ \\ \bigcirc\textcircled{7}\textcircled{2}\quad\textcircled{1}\textcircled{15} \\ 1\ 8\ 3\ .\ 2\ 5 \\ -\ 1\ 6\ 4\ .\ 4\ 8 \\ \hline 1\ 8\ .\ 7\ 7 \\ \hline \end{array}$$

Subtraction of ₹ 18.77 from ₹ 50

$$\begin{array}{r} \text{₹}\qquad\ \text{p} \\ \textcircled{9}\quad\textcircled{9}\ \ \\ \textcircled{4}\textcircled{10}\quad\textcircled{10}\textcircled{10} \\ 5\ 0\ .\ 0\ 0 \\ -\ 1\ 8\ .\ 7\ 7 \\ \hline 3\ 1\ .\ 2\ 3 \\ \hline \end{array}$$

Q.9. An ink pen costs ₹ 25.10 and a ball pen costs ₹ 10.25. Which is more costly and by how much?

Sol.

	⑩
	④ ⓪⑩
Cost of an ink pen =	₹ 2 5 . 1 0
Cost of a ball pen =	– ₹ 1 0 . 2 5
Difference of both =	₹ 1 4 . 8 5

Q.10. Pankaj had ₹ 403 in his bank account. He withdrew ₹ 249.45. What is the balance in his account now?

Sol.

	⑨⑫ ⑨
	③⑩② ⑩⑩
Total amount in bank account =	₹ 4 0 3 . 0 0
Amount withdrawl =	– ₹ 2 4 9 . 4 5
Amount lefted =	₹ 1 5 3 . 5 5

Exercise 5.6

Q.1. Find the following products.

(a) ₹ p
1 6 . 3 0
× 2

(b) ₹ p
2 9 . 6 5
× 5

(c) ₹ p
4 0 8 . 7 5
× 6

(d) ₹ p
2 6 6 . 4 3
× 8

(e) ₹ p
1 7 3 . 4 4
× 9

(f) ₹ p
2 0 0 . 4 0
× 1 0

Sol. (a) ₹ p
①○ ○○
1 6 . 3 0
× 2
3 2 . 6 0

(b) ₹ p
④③ ②○
2 9 . 6 5
× 5
1 4 8 . 2 5

(c) ₹ p
○⑤④ ③○
4 0 8 . 7 5
× 6
2 4 5 2 . 5 0

(d) ₹ p
⑤⑤③ ②○
2 6 6 . 4 3
× 8
2 1 3 1 . 4 4

(e) ₹ p
⑥③③ ③○
1 7 3 . 4 4
× 9
1 5 6 0 . 9 6

(f) ₹ p
2 0 0 . 4 0
× 1 0
0 0 0 . 0 0
2 0 0 4 . 0 ×
2 0 0 4 . 0 0

Q.2. A bat costs ₹ 54.65. Find the cost of 8 such bats.

Sol. Cost of a bat = ₹ 54.65
Cost of 8 bats = ₹ 54.65 × 8
= ₹ 437.20

③⑤ ④○
5 4 . 6 5
× 8
4 3 7 . 2 0

Q.3. A packet of grapes costs ₹ 88.50. What is the cost of 7 such packets?

Sol. Cost of one packet of grapes = ₹ 88.50
Cost of 7 packet of grapes = ₹ 88.50 × 7
= ₹ 619.50

⑤③ ○○
8 8 . 5 0
× 7
6 1 9 . 5 0

Q.4. Find the cost of 3 pairs of canvas shoes, if each pair costs ₹ 536.95.

Sol. Cost of one pair shoes = ₹ 536.95
Cost of 3 pair shoes = ₹ 536.95 × 3
= ₹ 1610.85

①②② ①○
5 3 6 . 9 5
× 3
1 6 1 0 . 8 5

Q.5. One box of crayons costs ₹ 34.45. What is the cost of 10 such boxes?

Sol. Cost of one crayons box = ₹ 34.45
Cost of 10 crayons boxes = ₹ 34.45 × 10
= ₹ 344.50

3 4 . 4 5
× 1 0
0 0 0 0
3 4 4 5 ×
3 4 4 . 5 0

Must Practice Exercise 5

Q.1. Express the following amounts of money in figures :
(a) Eleven rupees ten paise
(b) Thirty five rupees eight paise

(c) Ninety six rupees eighteen paise

(d) Forty nine rupees seven paise

Sol. (a) ₹ 11.10 (b) ₹ 35.08

(c) ₹ 96.18 (d) ₹ 49.07

Q.2. Express the following amounts of money in short from :

(a) 6 paise (b) 80 rupees 80 paise

(c) 12 rupees (d) 36 rupees 7 paise

Sol. (a) ₹ 0.06 (b) ₹ 80.80

(c) ₹ 12 (d) ₹ 36.07

Q.3. Express the following amounts of money in words :

(a) ₹ 66.06 (b) ₹ 55.60

(c) ₹ 29.29

Sol. (a) Sixty-six rupees and six paise

(b) Fifty-five rupees and sixty paise

(c) Twenty-nine rupees and twenty-nine paise

Q.4. Convert the following into paise :

(a) ₹ 90.50 (b) ₹ 5.67

(d) ₹ 45.65 (g) ₹ 8.09

Sol. (a) ₹ $90.50 = 90.50 \times 100$ p $= 9050$ p

(b) ₹ $5.67 = 5.67 \times 100$ p $= 567$ p

(c) ₹ $45.65 = 45.65 \times 100$ p $= 4565$ p

(d) ₹ $8.09 = 8.09 \times 100$ p $= 809$ p

Q.5. Convert the following into Rupees :

(a) 60 paise (b) 5670 paise

(c) 570 paise (d) 3000 paise

Sol. (a) 60 p = ₹ $\frac{60}{100}$ = ₹ 0.60

(b) 5670 p = ₹ $\frac{5670}{100}$ = ₹ 56.70

(c) 570 p = ₹ $\frac{570}{100}$ = ₹ 5.70

(d) 3000 p = ₹ $\frac{3000}{100}$ = ₹ 30.00

Q.6. Express the following amount of money in decimals :

(a) 75 rupees 90 paise

(b) 4 rupees

(c) 23 rupees 70 paise

(d) 1 rupee 9 paise

(e) 13 rupees 11 paise

(f) 80 paise

Sol. (a) ₹ 75.90 (b) ₹ 4.00

(c) ₹ 23.70 (d) ₹ 1.09

(e) ₹ 13.11 (f) ₹ 0.80

Q.7. Add the rupees and paise :

(a) ₹ 45.50 + ₹ 6.50 =?

(b) ₹ 90 + ₹ 3.50 =?

(c) ₹ 30. 50 + ₹ 25.50 =?

(d) ₹ 678.25 + ₹ 35.25 = ?

(e) ₹ 250.75 + ₹ 320.25 = ?

Sol. (a)

$$\begin{array}{cccccc} & \text{₹} & & & \text{p} & \\ & \textcircled{1} & \textcircled{1} & & \bigcirc & \bigcirc \\ & 4 & 5 & . & 5 & 0 \\ + & & 6 & . & 5 & 0 \\ \hline & 5 & 2 & . & 0 & 0 \\ \hline \end{array}$$

(b)

$$\begin{array}{cccccc} & \text{₹} & & & \text{p} & \\ & 9 & 0 & . & 0 & 0 \\ + & & 3 & . & 5 & 0 \\ \hline & 9 & 3 & . & 5 & 0 \\ \hline \end{array}$$

(c)

$$\begin{array}{cccccc} & \text{₹} & & & \text{p} & \\ & \bigcirc & \textcircled{1} & & \bigcirc & \bigcirc \\ & 3 & 0 & . & 5 & 0 \\ + & 2 & 5 & . & 5 & 0 \\ \hline & 5 & 6 & . & 0 & 0 \\ \hline \end{array}$$

(d)

$$\begin{array}{ccccccc} & & \text{₹} & & & \text{p} & \\ & \textcircled{1} & \textcircled{1} & & & \textcircled{1} & \bigcirc \\ & 6 & 7 & 8 & . & 2 & 5 \\ + & & 3 & 5 & . & 2 & 5 \\ \hline & 7 & 1 & 3 & . & 5 & 0 \\ \hline \end{array}$$

(e)

$$\begin{array}{ccccccc} & & \text{₹} & & & \text{p} & \\ & & \bigcirc & \textcircled{1} & & \textcircled{1} & \bigcirc \\ & 2 & 5 & 0 & . & 7 & 5 \\ + & 3 & 2 & 0 & . & 2 & 5 \\ \hline & 5 & 7 & 1 & . & 0 & 0 \\ \hline \end{array}$$

Q.8. Subtract Rupees and paise :

(a) ₹ 155.50 – ₹ 25.25

(b) ₹ 210.10 – ₹ 45.60

(c) ₹ 562.80 – ₹ 320.75

Sol. (a)

$$\begin{array}{ccccccc} & & \text{₹} & & & \text{p} & \\ & & & & & \textcircled{4} & \textcircled{10} \\ & 1 & 5 & 5 & . & 5 & 0 \\ - & & 2 & 5 & . & 2 & 5 \\ \hline & 1 & 3 & 0 & . & 2 & 5 \\ \hline \end{array}$$

(b)

$$\begin{array}{ccccccc} & & \text{₹} & & & \text{p} & \\ & & \textcircled{10} & \textcircled{9} & & & \\ & \textcircled{1} & \textcircled{0} & \textcircled{10} & & \textcircled{11} & \bigcirc \\ & 2 & 1 & 0 & . & 1 & 0 \\ - & & 4 & 5 & . & 6 & 0 \\ \hline & 1 & 6 & 4 & . & 5 & 0 \\ \hline \end{array}$$

(c)

$$\begin{array}{ccccccc} & & \text{₹} & & & \text{p} & \\ & & \bigcirc & \bigcirc & & \textcircled{7} & \textcircled{10} \\ & 5 & 6 & 2 & . & 8 & 0 \\ - & 3 & 2 & 0 & . & 7 & 5 \\ \hline & 2 & 4 & 2 & . & 0 & 5 \\ \hline \end{array}$$

Q.9. Multiply :

(a) ₹ 140 × ₹ 3.50 (b) ₹ 108.50 × ₹ 0.50

(c) ₹ 233.30 × ₹ 1.90 (d) ₹ 98.30 × ₹ 7.60

(e) ₹ 56 × ₹ 11.45

Sol. (a)

$$\begin{array}{r} \text{₹}\ 1\ \ 4\ 0 \\ \times\ \text{₹}\ 3\ .\ 5\ 0 \\ \hline 0\ 0\ 0 \\ 7\ 0\ 0\ \times \\ 4\ 2\ 0\ \times\ \times \\ \hline \text{₹}\ 4\ 9\ 0\ .\ 0\ 0 \\ \hline \end{array}$$

(b)

$$\begin{array}{r} \text{₹}\ 1\ 0\ 8.\ 5\ 0 \\ \times\ \text{₹}\ \ \ 0\ .\ 5\ 0 \\ \hline 0\ 0\ 0\ 0\ 0 \\ 4\ 2\ 5\ 0\ \times \\ 0\ 0\ 0\ 0\ 0\ \times\ \times \\ \hline \text{₹}\ 5\ 4\ .\ 2\ 5\ 0\ 0 \\ \hline \end{array}$$

(c)

$$\begin{array}{r} \text{₹}\ 2\ 3\ 3.\ 3\ 0 \\ \times\ \text{₹}\ \ \ 1\ .\ 9\ 0 \\ \hline 0\ 0\ 0\ 0\ 0 \\ 2\ 0\ 9\ 9\ 7\ 0\ \times \\ 2\ 3\ 3\ \ \ 3\ 0\ \times\ \times \\ \hline \text{₹}\ 4\ 4\ 3\ .\ 2\ 7\ 0\ 0 \\ \hline \end{array}$$

(d)

$$\begin{array}{r} \text{₹}\ \ 9\ 8\ .\ 3\ 0 \\ \times\ \text{₹}\ \ \ 7\ .\ 6\ 0 \\ \hline 0\ 0\ 0\ 0 \\ 5\ 8\ \ \ 9\ 8\ 0\ \times \\ 6\ 8\ 8\ \ \ 1\ 0\ \times\ \times \\ \hline \text{₹}\ 7\ 4\ 7\ .\ 0\ 8\ 0\ 0 \\ \hline \end{array}$$

(e)

$$\begin{array}{r} \text{₹}\ \ \ \ \ 5\ 6 \\ \times\ \text{₹}\ 1\ 1\ .\ 4\ 5 \\ \hline 2\ 8\ 0 \\ 2\ 2\ 4\ \times \\ 5\ 6\ \times\ \times \\ 5\ 6\ \times\ \times\ \times \\ \hline \text{₹}\ 6\ 4\ 1\ .\ 2\ 0 \\ \hline \end{array}$$

Q.10. If you have ₹ 65 with you, find out how much money will be left after buying 10 pencils, 10 erasers and 6 sharpners if the price of 1 pencil is ₹ 2.5.,1 eraser is ₹ 1.50 and 1 sharpner is ₹ 2 respectively.

Sol. Total money has = ₹ 65

Cost of one pencil = ₹ 2.5

Cost of 10 pencils = ₹ 2.5 × 10

= ₹ 25

Cost of one eraser = ₹ 1.50

Cost of 10 erasers = ₹ 1.50 × 10

= ₹ 15

Cost of one sharpner = ₹ 2

Cost of 6 sharpners = ₹ 2 ×6 = ₹ 12

$$\begin{array}{r} ①\ ○ \\ 2\ 5 \\ 1\ 5 \\ +\ 1\ 2 \\ \hline 5\ 2 \\ \hline \end{array}$$

Total cost = ₹ 25 + ₹ 15 + ₹ 12

= ₹ 52

Money lefted = ₹ 65 – ₹ 52

= ₹ 13

$$\begin{array}{r} 6\ 5 \\ -\ 5\ 2 \\ \hline 1\ 3 \\ \hline \end{array}$$

Q.11. Two friends wanted to buy a book costing ₹ 500. Ritu had ₹ 170 and Vani had ₹ 260. How much more money they are short of to buy the book.

Sol. Cost of a book = ₹ 5 0 0

$$\begin{array}{rr} & ①\ ○\ ○ \\ \text{Ritu had} = & \text{₹}\ 1\ 7\ 0 \\ \text{Vani had} = & +\ \text{₹}\ 2\ 6\ 0 \\ \hline & \text{₹}\ 4\ 3\ 0 \\ \hline & ④\ ⑩\ ○ \\ \text{Money need} = & \text{₹}\ 5\ 0\ 0 \\ & -\ \text{₹}\ 4\ 3\ 0 \\ \hline & \text{₹}\ \ \ 7\ 0 \\ \hline \end{array}$$

Q.12. The cash memo of supermarket had the following items : 6 chocolates ₹ 120, 5 candies ₹ 10, 2 lollipops ₹ 30, 1 toy ₹ 150.

(a) Find the total bill amount

(b) Find the price of 1 chocolate.

Sol. (a)

Items	Quantity	Amount
Chocolates	6	₹ 120
Candies	5	₹ 10
Lollipops	2	₹ 30
Toy	1	+ ₹ 150
	Total amount	= ₹ 310

(b) Cost of 6 chocolates = ₹ 1 2 0

Cost of 1 chocolate = ₹ 1 2 0 ÷ 6

= ₹ 2 0

$$\begin{array}{r} 6\overline{)120}(20 \\ 12 \\ \hline 0 \\ 0 \\ \hline \times \end{array}$$

Q.13. How many 50 paise coins make ₹ 15?

Sol. ₹ 15 = 15 × 100 p

= 1500 p

No. of 50 p coins in 1500 p

= 1500 ÷ 50

= 30 coins

$$\begin{array}{r} 50\overline{)1500}(30 \\ 150 \\ \hline 0 \\ 0 \\ \hline \times \end{array}$$

Q.14. A packet of eraser costs ₹ 50.50. What is the cost of 12 packets of erasers?

Sol. Cost of a eraser packet = ₹ 50.50

Cost of 12 eraser packets = ₹ 50.50 × 12

= ₹ 606.00

$$\begin{array}{r} 5\ 0\ .\ 5\ 0 \\ \times\ 1\ 2 \\ \hline 1\ 0\ 1\ 0\ 0 \\ 5\ 0\ 5\ 0\ \times \\ \hline 6\ 0\ 6\ .\ 0\ 0 \end{array}$$

Q.15. Sheena and Ruby had ₹ 560 and ₹ 220 respectively. Reena had ₹ 115 more than the sum of amount of Sheena and Ruby. How much amount does Reena has?

Sol. Sheena had = ₹ 560

Ruby had = ₹ 220

Reena had = ₹ 115 more than sum of amount of Sheena and Ruby

= ₹ 115 + (₹ 560 + ₹ 220)

= ₹ 115 + ₹ 780

= ₹ 895

$$\begin{array}{r} ₹\ 560 \\ +\ ₹\ 220 \\ \hline ₹\ 780 \end{array} \qquad \begin{array}{r} ₹\ 780 \\ +\ ₹\ 115 \\ \hline ₹\ 895 \end{array}$$

Click Type Questions

Tick (✔) the correct answer.

Q.1. 41 paise in decimal is :

(a) ₹ 0.41 (b) ₹ 41

(c) ₹ 4.1 (d) none of these

Sol. (a) 41 p = ₹ $\frac{41}{100}$ = ₹ 0.41

Q.2. How many paise are there in ₹ 7? How many 25 paise coins make ₹ 7?

(a) 7000 paise, 20 coins

(b) 700 paise, 28 coins

(c) 70 paise, 25 coins

(d) none of these

Sol. (b) ₹ 7 = 7 × 100 p = 700 p

No. of 25 p in ₹ 7

= ₹ 7 ÷ 25 p = 700 p ÷ 25 p

= 28 coins

$$\begin{array}{r} 25\overline{)700}(28 \\ 50 \\ \hline 200 \\ 200 \\ \hline \times \end{array}$$

Q.3. Five pairs of socks costs ₹ 400. The cost of one pair of socks is :

(a) ₹ 80 (b) ₹ 40

(c) ₹ 10 (d) none of these

Sol. (a) Cost of 5 pairs of socks = ₹ 400

Cost of 1 pair of socks = ₹ 400 ÷ 5

= ₹ 80

$$\begin{array}{r} 5\overline{)400}(80 \\ 40 \\ \hline 0 \\ 0 \\ \hline \times \end{array}$$

Q.4. ₹ 5 – ₹ .75 = _______

(a) ₹ 4.00 (b) ₹ 4.05

(c) ₹ 4.25 (d) none of these

Sol. (c)

$$\begin{array}{rcrr} ₹ & & \multicolumn{2}{c}{p} \\ & & \textcircled{9} & \\ \textcircled{4} & & \textcircled{10} & \textcircled{10} \\ 5 & . & 0 & 0 \\ -\ 0 & . & 7 & 5 \\ \hline 4 & . & 2 & 5 \end{array}$$

Q.5. 45 paise is :

(a) ₹ 0.45 (b) ₹ 45

(c) ₹ 0.45 (d) none of these

Sol. (a) 45 p = ₹ $\frac{45}{100}$ = ₹ 0.45

Q.6. Sixty seven rupees and four paise is :

(a) ₹ 67.14 (b) ₹ 67.04

(c) ₹ 67.40 (d) ₹ 67

Sol. (b) 67.04

Q.7. The price of a bat has increased from ₹ 500 to ₹ 750.65. The increase in price is :

(a) ₹ 250 (b) ₹ 205.65

(c) ₹ 250.65 (d) none of these

Sol. (c) Increased price = ₹ 750.65 – ₹ 500

= ₹ 250.65

$$\begin{array}{r} ₹\quad\ \ p \\ 7\ 5\ 0\ .\ 6\ 5 \\ -\ 5\ 0\ 0\ .\ 0\ 0 \\ \hline 2\ 5\ 0\ .\ 6\ 5 \end{array}$$

Q.8. Addition of ₹ 15.65, ₹ 0.95 and ₹ 145.78 is :

(a) ₹ 160.20 (b) ₹ 162.38

(c) ₹ 168 (d) ₹ 162

Sol. (b)

	₹	p
	①②	①○
	15 .	65
	0 .	95
+	145 .	78
	162 .	38

Q.9. Ruby and Priyanka have ₹ 456.56 and ₹ 125.60 respectively. Pushpendra has an amount equal to the sum of Ruby and Priyanka together have. What is the amount Puspendra has?

(a) ₹ 571.16 (b) ₹ 582.16

(c) ₹ 581.16 (d) none of these

Sol. (b)

	○① ① ○○
Ruby has =	₹ 4 5 6 . 5 6
Priyanka has =	+ ₹ 1 2 5 . 6 0
Total amount =	₹ 5 8 2 . 1 6

Pushpendra has = Sum of Ruby and Priyanka's money = ₹ 582.16

Q.10. Rama spent ₹ 15 on pencil, ₹ 25 on pencil box and ₹ 12 on a chocolate. Total money spent by him is :

(a) ₹ 30 (b) ₹ 52

(c) ₹ 42 (d) ₹ 12

Sol. (b)

	①○
Cost of pencil =	₹ 1 5
Cost of pencil box =	₹ 2 5
Cost of chocolate =	₹ 1 2
Total amount =	₹ 5 2

Chapter 6 Shapes

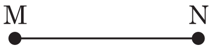
Exercise 6.1

Q.1. Draw any two points with name M and N.

Sol.

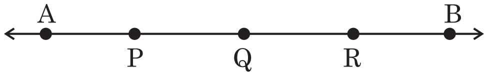
Q.2. Join the points obtained in question 1 and write its name.

Sol.



Name : $\overline{MN}$

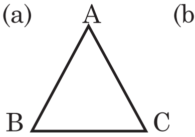
Q.3. Write the name of points marked between A and B as in figure.



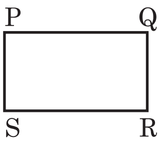
Sol. P, Q, R

Q.4. Name the line segments in each of the following figures :

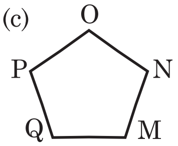
(a)



(b)



(c)



Sol. (a) AB, BC, CA (b) PQ, QR, RS, SP

(c) ON, NM, MQ, QP, PO

Q.5. Fill in the blanks :

(a) A line segment has __________ end points.

(b) A line segment has a __________ length.

(c) A line has ______________ end point.

(d) A line AB is represented by ____________.

(e) A ray has ________________ end point.

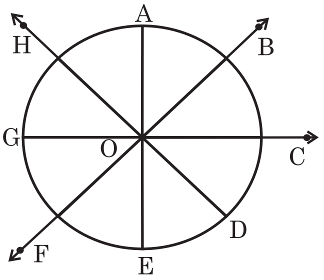
(f) A ray AB is represented by _____________.

Sol. (a) Two (b) Definite

(c) No (d) $\overleftrightarrow{AB}$

(e) One (f) $\overrightarrow{AB}$

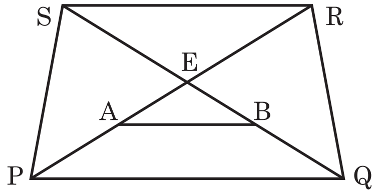
Q.6. Write the names of the rays, line segments, and lines from the figure given below.



Sol.

Rays	Line-segments	Line
$\overrightarrow{DH}$, $\overrightarrow{GC}$	$\overrightarrow{AE}$	$\overleftrightarrow{BF}$

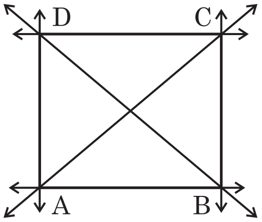
Q.7. Look at the figure and answer the following questions :



(a) Where do PR and QS meet?
(b) Where do AB and QE meet?
(c) Where do AR and BS meet?
(d) AT what point do PS and RS meet?

Sol. (a) E (b) B (c) E (d) S

Q.8. In the given figure :



(a) Name the sleeping lines
(b) Name the standing lines
(c) Name the slanting lines

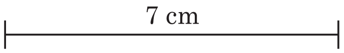
Sol. (a) AB, CD (b) BC, AD (c) AC, BD

Exercise 6.2

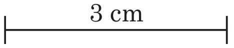
Q.1. Construct a line segment AB of lengths :

(a) 7 cm (b) 3 cm
(c) 6 cm (d) 9 cm

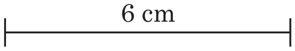
Sol. (a)



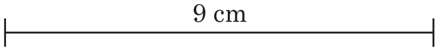
(b)



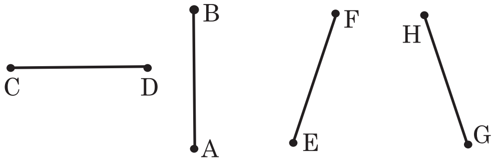
(c)



(d)



Q.2. Measure each of the following line segments :



Sol. (a) CD = 2 cm (b) AB = 2.5 cm
(c) EF = 3 cm (d) GH = 3.5 cm

Exercise 6.3

Q.1. Give any two examples of the following :

(a) Only curved surfaces
(b) Only flat surfaces
(c) Both plane and curved surfaces

Sol. (a) Apple, ball (b) Copy, card board
(c) Pencil, candle

Q.2. Fill in the blanks :

(a) A cuboid has ______________ straight edges and ______________ vertices.
(b) A cylinder has ______________ edges and ______________ vertices.
(c) A cube has ______________ straight edges and ______________ vertices.
(d) A sphere has ______________ edge and ______________ vertices.

Sol. (a) 12, 8 (b) 2, 0 (c) 12, 8 (d) 0, 0

Q.3. Identify the shape of each of the following objects :

(a) watermelon (b) candle
(c) orange (d) pickle jar
(e) pencil box

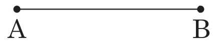
Sol. (a) Sphere (b) Cylinder
(c) Sphere (d) Cylinder
(e) Cuboid

Must Practice Exercise 6

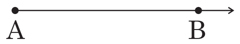
Q.1. Define : (a) point (b) line segment (c) ray

Sol. (a) A point has no size *i.e.,* no width, no length and no depth. A point is shown by a dot.

(b) A **line segment** has a definite length and has two end points.



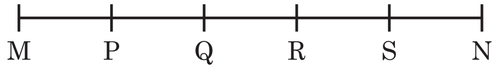
(c) A **ray** does not have a definite length but it has one point.



Q.2. Differentiate between line and ray.

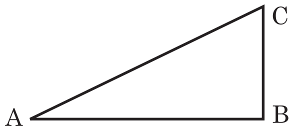
Sol. A line goes on to infinity in both directions, but a ray stops on one end.

Q.3. Name the points marked between M and N on the line segment MN.



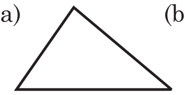
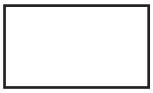
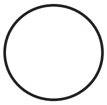
Sol. P, Q, R, S

Q.4. Measure each side of the given figure and write in the space provided :



Sol. AB = 4 cm, BC = 3 cm, CA = 5 cm

Q.5. Name each of the following figures :

(a)

(b)

(c)


Sol. (a) Triangle (b) Rectangle
(c) Circle

Q.6. Write the name shape do the following have?

(a) A page of the book is ________ shaped.
(b) The surface of a book is _______ shaped.
(c) The wheel of a bicycle is _________.

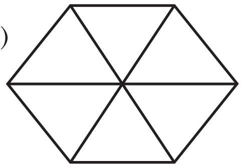
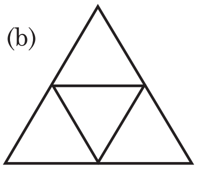
Sol. (a) Rectangle (b) Rectangle
(c) Circle

Q.7. Fill in the blanks :

(a) A triangle has ___________ sides.
(b) All the sides of a square are ___________.

Sol. (a) 3 (b) Equal

Q.8. Look at the following figures and count the number of triangles in each case :

(a)

(b)


Sol. (a) 6 (b) 5

Q.9. Identify the shape of each of the following objects.

(a) Funnel	(b) Orange
(c) Battery cell	(d) Garden roller

Sol. (a) Cone (b) Sphere
(c) Cylinder (d) Cylinder

Q.10. Fill in the blanks.

(a) All the faces of a _________ are identical.
(b) A ________ has two edges and no vertex.
(c) A _________ has no vertex and no edge.
(d) A cylinder has ________ plane faces and __________ edges.

Sol. (a) Cube (b) Cylinder
(c) Sphere (d) One, two

Click Type Questions

Tick (✔) the correct answer :

Q.1. A ____________ has a definite length.

(a) point (b) ray
(c) line segment (d) both (a) and (b)

Sol. (c) Line segment

Q.2. Choose the correct statement :

(a) Line segment $\overline{AB}$ is the same as line segment $\overline{BA}$.
(b) Line $\overleftrightarrow{AB}$ is the same as line $\overleftrightarrow{BA}$.
(c) Ray $\overrightarrow{AB}$ is the same as ray $\overrightarrow{BA}$.
(d) All are correct.

Sol. (a) Line segment $\overline{AB}$ is the same as line segment $\overline{BA}$.

Q.3. A ____________ has no end point.

(a) line segment (b) line
(c) ray (d) none of these

Sol. (b) Line

Q.4. Which of the following solid shapes has no vertex?

(a) cone (b) cylinder
(c) sphere (d) both (b) and (c)

Sol. (d) both (b) and (c)

Q.5. How many edges does a cylinder have?

(a) 0 (b) 1
(c) 2 (d) 3

Sol. (c) 2

Q.6. A cube has ________ vertices, ___________ faces and ____________ edges.

(a) 6, 8, 8 (b) 8, 6, 12
(c) 6, 6, 10 (d) 6, 8, 12

Sol. (b) 8, 6, 12

Q.7. Which of the following solids will roll down in inclined plane?

(a) cylinder (b) cuboid
(c) cube (d) cone

Sol. (a) Cylinder

Q.8. Which of the following statements is not correct?

(a) Every square is a rectangle.

(b) A sphere has just one edge.

(c) Every rectangle is a quadrilateral.

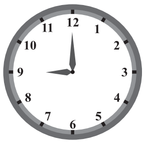
(d) A line segment is a part of a line.

Sol. (b) A sphere has just one edge.

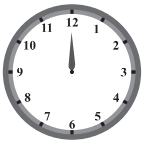
Chapter 7 Time

Exercise 7.1

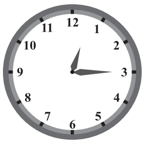
Q.1. Write the time shown on the watch in two ways :



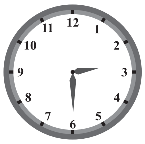
(a)



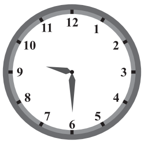
(b)



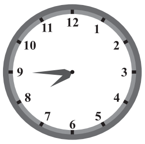
(c)



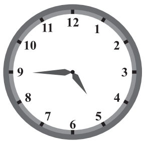
(d)



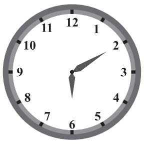
(e)



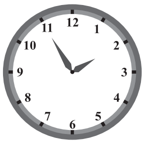
(f)



(g)



(h)



(i)

Sol. (a) 9:00/9 'o' clock (b) 12:00/12 'o' clock

(c) 12:15/Quarter past 12

(d) 2:30/12 half past 2

(e) 9:30/half past 9

(f) 7:45/Quarter to 8

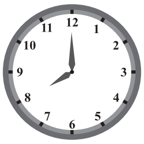
(g) 4:45/Quarter to 5

(h) 6:10/10 min past 6

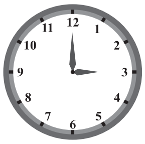
(i) 1:55/5 min to 2

Q.2. The time is given and the minute hand is drawn on the clocks. Draw the hour hand to show the correct time.

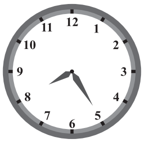
Sol.



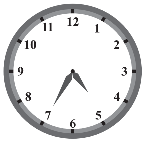
8 o' clock



3 o' clock



8 : 25



4 : 35

Exercise 7.2

Q.1. Fill in the blanks by looking in the calendar :

(a) Your birthday ______________.

(b) Your father's birthday ______________.

(c) Your mother's birthday ______________.

(d) Teacher's day is celebrated on ________.

(e) Independence day is celebrated on ______________.

Sol. (a) Do yourself (b) Do yourself

(c) Do yourself (d) 5 September

(e) 15 August

Q.2. Study the given calendar for the year 2019 carefully and answer the following questions :

(a) How many Tuesday are there in August, 2019?

(b) How many months in 2019 have five Sundays? Write their names.

(c) On which day does your birthday fall in the year 2019?

(d) Find each of the following dates in the given calendar and state the day on which it falls : 29.10.2019, 6.9.2019, 18.12.2019, 28.8.2019

Sol. (a) 4

(b) 4, March, June, September, December

(c) Do yourself

(d) Tuesday, Friday, Wednesday, Wednesday

Q.3. Fill in the blanks with the correct year :

(a) In which year were you born? ______________

(b) In which year were you promoted to Class III? ______________

(c) Which year will it be after three years? ______________

(d) In which year will you pass out from Class III? ______________

Sol. (a) Do yourself (b) Do yourself

(c) Do yourself (d) Do yourself

Q.4. Look at the calendar for the year 2019 and write the day for each the following dates.

(a) 26.4.2019

(b) 30.8.2019

(c) 25.8.2019

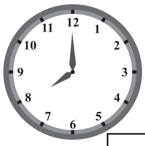
Sol. (a) Friday (b) Friday

(c) Sunday

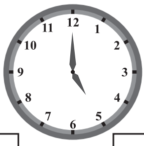
Must Practice Exercise 7

Q.1. Look at the clocks and write the correct time in each of the following :

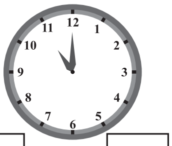
(a)



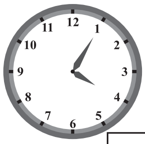
(b)



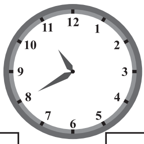
(c)



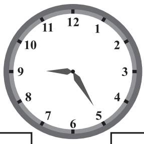
(d)



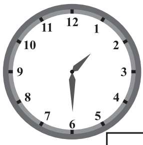
(e)



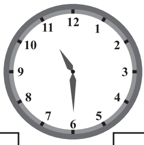
(f)



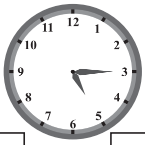
(g)



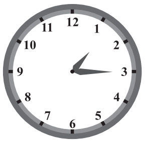
(h)



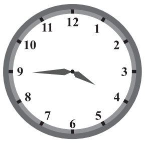
(i)



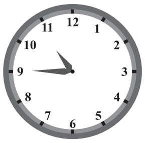
(j)



(k)

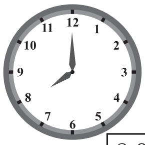


(l)



Sol.

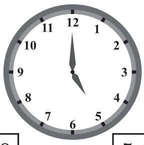
(a)



8:00

8 o' clock

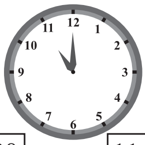
(b)



5:00

5 o' clock

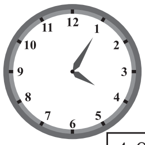
(c)



11:00

11 o' clock

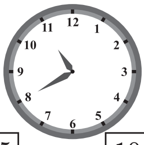
(d)



4:05

5 min. past 4

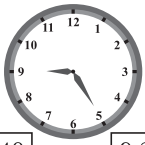
(e)



10:40

20 min. to 11

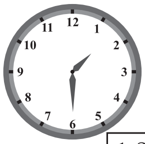
(f)



9:25

25 min. past 9

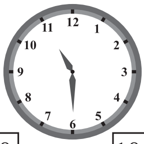
(g)



1:30

Half past 1

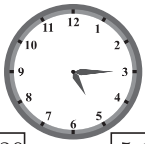
(h)



10:30

Half past 10

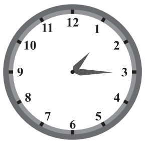
(i)



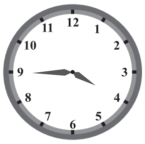
5:15

15 min. past 5

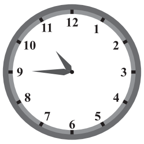
(j)



(k)



(l)



1:15 3:45 10:45

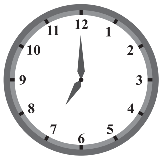
15 min. past 1

15 min. to 4

15 min. to 11

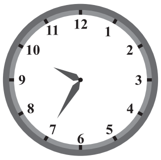
Q.2. The time is given below each of the clocks. Draw the hands to show the correct time :

Sol. (a)



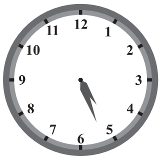
7 o' clock

(b)



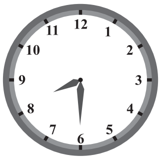
9 : 35

(c)



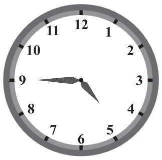
5 : 25

(d)



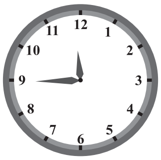
Half past 8

(e)



Quarter to 5

(f)



Quarter to 12

Q.3. Fill in the blanks :

(a) The minute hand takes __________ minutes to move from 5 to 8.

(b) At __________ both the hands will be at 12.

(c) When the time is a quarter past an hour, the minute hand is always at __________.

(d) At a quarter to an hour, the minute hand is always at __________.

(e) When it is a quarter to an hour, the minute hand has covered __________ minutes.

(f) In one day, the hour hand goes __________ round the clock.

Sol. (a) 15 (b) 12 o' clock
(c) 3 (d) 9
(e) 45 (f) 24

Q.4. State whether each of the following statements is true or false.

(a) Half past 8 is written as 8 : 15.

(b) Quarter to 2 is written as 1 : 45.

(c) At 7 : 30, the minute hand is between in 7 and 8.

(d) The minute hand moves from 1 to 3 in 10 minutes.

Sol. (a) False (b) True
(c) True (d) True

Q.5. Study the given calendar for the year 2019 carefully and answer the following questions :

(a) On which day does the year 2019 ends?

(b) How many Thursdays are there in May 2019?

(c) How many months in 2019 have 30 days? Write their names.

Sol. (a) Tuesday (b) 5
(c) 4, April, June, September, November

Click Type Questions

Tick (✓) the correct answer.

Q.1. 20 minutes to 12 can be read as :

(a) 11 : 40 (b) 11 : 50

(c) 12 : 10 (d) 12 : 50

Sol. (a) 11 : 40

Q.2. When the minute hand is at 8, it has covered ________ minutes.

(a) 30 (b) 40

(c) 50 (d) 60

Sol. (b) 40

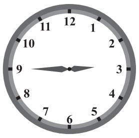
Q.3. What is the correct time shown in the clock?

(a) Quarter to 3

(b) Half past 3

(c) 3 o' clock

(d) Quarter past 3



Sol. (a) Quarter to 3

Q.4. How many rounds does the minute hand of a clock complete in a day?

(a) 2 (b) 12

(c) 24 (d) None of these

Sol. (c) 24

Q.5. Choose the odd one out :

(a) January (b) May

(c) August (d) November

Sol. (d) November

Q.6. Choose the odd one out :

(a) April (b) July

(c) November (d) September

Sol. (b) July

Q.7. Which of the following is a leap year?

(a) 2009 (b) 2016

(c) 2017 (d) 2019

Sol. (b) 2016

Q.8. How many months are there in 2 years?

(a) 12 (b) 18 (c)20 (d) 24

Sol. (d) 24

Q.9. Which day is three days ahead of Saturday?

(a) Monday (b) Tuesday

(c) Wednesday (d) Thursday

Sol. (b) Tuesday

Q.10. If the day after tomorrow is Sunday, what was the day yesterday?

(a) Thursday (b) Wednesday

(c) Friday (d) Saturday

Sol. (a) Thursday

Chapter 8 Let's Collect Data

Exercise 8.1

Q.1. In a match between India and Australia, India won by 46 runs. Let us find out the scores of the best five batsmen in the innings.

Name of the Player	Runs scored by him
Vijay Shankar	102
Siddarth Kaul	28
Deepak Chahar	76
Khaleel Ahmed	54
Krunal Pandya	72

Answer the following from the above table:

(a) Who scored maximum runs?

(b) Who scored minimum runs?

(c) Who scored more than a century?

(d) Who scored more than a half century?

(e) What is the difference between highest and lowest runs?

(f) How many runs did Deepak Chahar need more to complete his century?

Sol. (a) Vijay Shankar (b) Sidharth Kaul

(c) Vijay Shankar

(d) Vijay Shankar Deepak Chahar, Khaleel Ahmed, Krunal Pandya

(e) 102 – 28 = 74 (f) 100 – 76 = 24

Q.2. Given below is the information about number of toys owned by five students.

Sajal	Anshuman	Kartik	Preeti	Sanjana
8	2	7	4	6

Represent the above information by a pictograph also by tally marks.

Sol.

1⚽ = 1 toy

Students	Toys	Pictrograph	Tally mark
Sajal	8	⚽⚽⚽⚽ ⚽⚽⚽⚽	卌 |||
Anshuman	2	⚽⚽	||
Kartik	7	⚽⚽⚽⚽ ⚽⚽⚽	卌 ||
Preeti	4	⚽⚽⚽⚽	||||
Sanjana	6	⚽⚽⚽⚽ ⚽⚽	卌 |

Q.3. Draw a table with details of mid-day meal cooked and number of students served in your school :

Sol.

Day	Detail of food cooked	Number of students
Monday	Roti-Soyabean/Daal	25
Tuesday	Rice-Daal	29
Wednesday	Milk-Tahari	26
Thursday	Roti-Daal	28
Friday	Tahari	29
Saturday	Rice-soyabean vegetable	27

Q.4. Given pictograph shows the hobby classes joined by some kids in summer vacation.

Hobby classes	Number of students
Drawing	☺☺☺☺☺☺
Cooking	☺☺
Craft	☺☺☺☺☺
Dance	☺☺☺☺☺☺☺
Karate	☺☺☺☺

Each ☺ stands for 3 students.

(a) Which class was joined by maximum students? ______________

(b) How many students joined karate class? ______________

(c) Which class was joined by 6 students only? ______________

(d) How many students joined drawing and craft classes? ______________

(e) How many students joined dance class? ______________

Sol. (a) Dance (b) 4 × 3 = 12

(c) Cooking

(d) Students joined drawing classes

= 6 × 3 = 18

Students joined craft classes = 5 × 3 = 15

Total students = 18 + 15 = 33

(e) 7 × 3 = 21

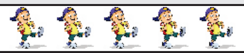
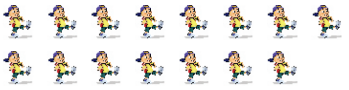
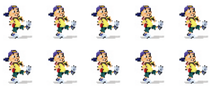
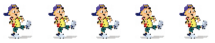
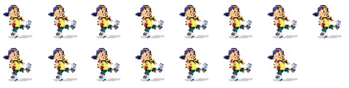
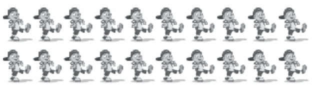
Q.5. Biggest balloon selling shop in the city was having number of balloons with following colours given in the table. Fill in the blanks :

Sol.

Colour	One Balloon 🎈 = 3 Balloons	Number of balloons	Tally marks
Red	🎈🎈🎈🎈🎈🎈	18 (3 × 6)	卌卌卌|||
Green	🎈🎈🎈🎈🎈🎈🎈	21 (3 × 7)	卌卌卌卌|
Blue	🎈🎈🎈🎈	12 (3 × 4)	卌卌||
Yellow	🎈🎈🎈🎈	12 (3 × 4)	卌卌||
Pink	🎈🎈🎈🎈🎈	15 (3 × 5)	卌卌卌
White	🎈🎈🎈	9 (3 × 3)	卌||||

Must Practice Exercise 8

Q.1. Draw figures in the table to show number of students absent between Monday to Saturday. Frame any two questions based on it and ask your friends.

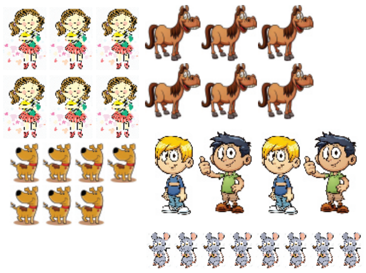
Day	No. of students	
Monday	5	
Tuesday	15	
Wednesday	10	
Thursday	5	
Friday	15	
Saturday	20	

Sol. Question formed from the table given above :

Q.1. On which two days attandence of students are same?

Q.2. On which day max. students were present and how much were absent?

Q.2. Sonu and her friends went to Nandan Van. There they saw horses, dogs and mice. How many members were present in each group :



(a) Which group has the highest number of members?

(b) Which group has the minimum number of members?

Name of the group	Number of members
Boys	4
Girls	6
Horses	6
Dogs	7
Mice	8

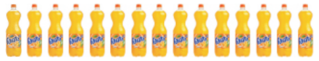
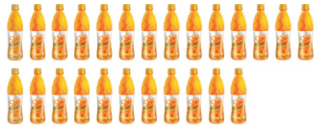
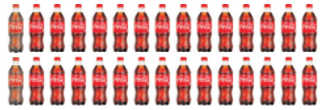
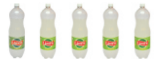
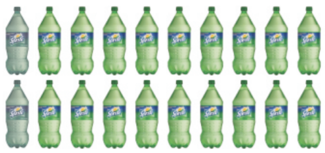
Sol. (a) Mice (b) Boys

Q.3. The table given below shows the number of bottles of different brands of cold-drinks sold by a shopkeeper on a certain day.

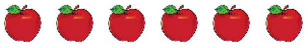
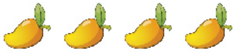
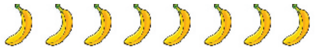
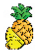
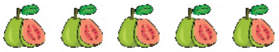
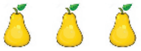
Fanta	Slice	Coke	Limca	Sprite
15	25	30	5	20

Represent the above data by a pictograph.

Sol.

Cold-drink bottles	No. of bottles	Pictograph
Fanta	15	
Slice	25	
Coke	30	
Limca	5	
Sprite	20	

Q.4. The following pictograph shows the number of fruits bought by a fruit vendor from a wholesale merchant.

Apple	
Mango	
Banana	
Pineapple	
Guava	
Pear	

Study the above pictograph carefully and answer the following questions.

(a) How many different kinds of fruits did the vendor buy?

(b) Which fruit did he buy in least number?

(c) How many bananas did the vendor buy?

(d) How many guavas did he buy?

(e) How many more apples did he buy than pears?

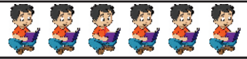
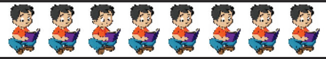
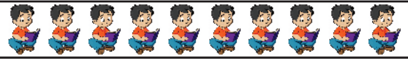
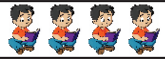
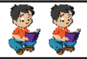
(f) How many fruits did he buy in all?

Sol. (a) 6 (b) Pineapple

(c) 8 (d) 5

(e) 3 (f) 27

Q.5. The pictograph shown below shows the number of students in a library, reading different kinds of books.

Story	
Comic	
Magazine	
Novel	
Poetry	

Read the above pictograph and answer the questions :

(a) How many students are there in the library?

(b) What is the difference between the number of students reading comics and those reading novels?

(c) Which type of books is read by the maximum number of students?

Sol. (a) 30 (b) 4

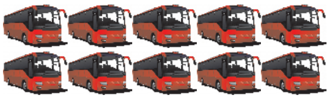
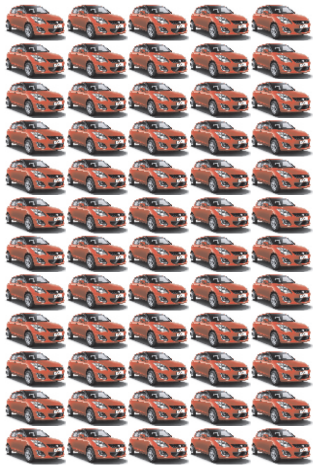
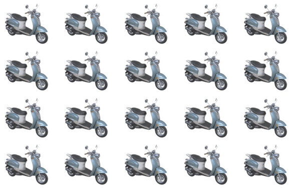
(c) Magazine

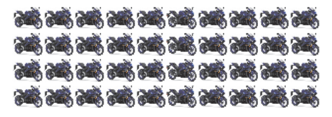
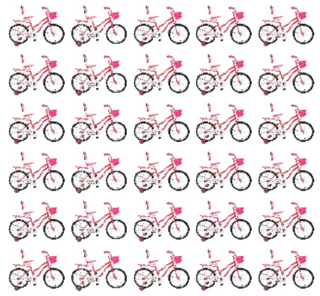
Q.6. The following information shows the number of different kinds of vehicles in a parking-lot.

Buses	Cars	Scooters	Motorcycles	Bicycles
10	60	20	40	30

Represent the above data by a pictograph.

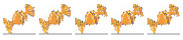
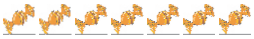
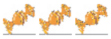
Sol.

Vehicles	**No. of vehicles**	**Pictograph**
Buses	10	
Cars	60	
Scooters	20	

Motorcycles	40	
Bicycles	30	

Q.7. Write the numbers of chocolates with the children.
Represent the above data by a pictograph and tally-marks.

Sol.

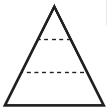
Name	= 5 chocolates	**Tally-marks**
Prem		𝍸 𝍸 𝍸 𝍸 𝍷𝍷/
Vansh		𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Khushi		𝍸 𝍸 𝍸

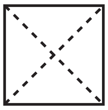
Chapter 9 Distributions (Fraction)

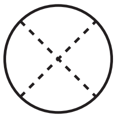
Exercise 9.1

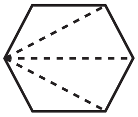
Q.1. Tick (✔) the figure, if it is divided into equal parts otherwise cross (×) :

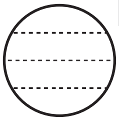
Sol.

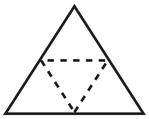
(a)  ☒

(b)  ✓

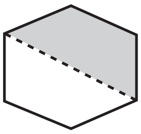
(c)  ✓

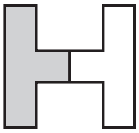
(d)  ☒

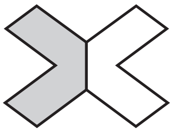
(e)  ☒

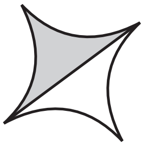
(f)  ✓

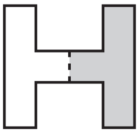
Q.2. Shade $\frac{1}{2}$ of each :

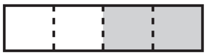
Sol. (a) 

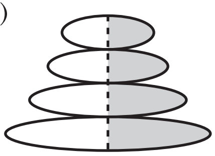
(b) 

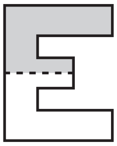
(c) 

(d) 

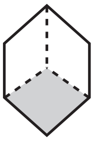
(e) 

(f) 

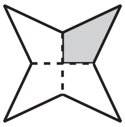
(g) 

(h) 

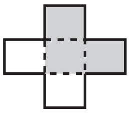
Q.3. Shade with a pencil given below the each figure :

Sol. (a) 

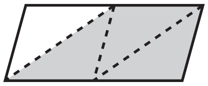
$\boxed{\frac{1}{3}}$

(b) 

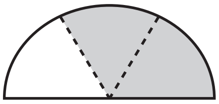
$\boxed{\frac{1}{4}}$

(c) 

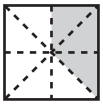
$\boxed{\frac{3}{5}}$

(d) 

$\boxed{\frac{3}{4}}$

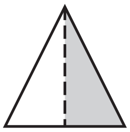
(e) 

$\boxed{\frac{2}{3}}$

(f) 

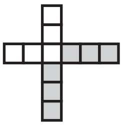
$\boxed{\frac{3}{8}}$

(g)



$\boxed{\frac{1}{2}}$

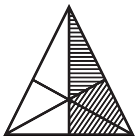
(h)



$\boxed{\frac{6}{11}}$

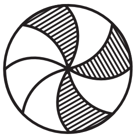
Q.4. For each of the following figures, write the fractions shows by the shaded parts :

Sol. (a)



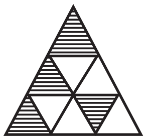
$\boxed{\frac{1}{2}}$

(b)



$\boxed{\frac{3}{8}}$

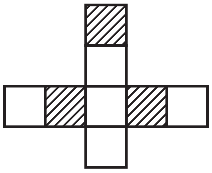
(c)



$\boxed{\frac{4}{9}}$

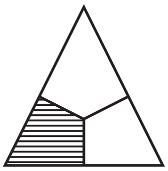
Q.5. For each of the following write the fraction shown by the unshaded parts :

Sol. (a)



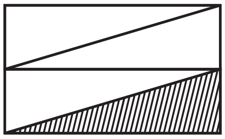
$\boxed{\frac{5}{8}}$

(b)



$\boxed{\frac{2}{3}}$

(c)



$\boxed{\frac{3}{4}}$

Q.6. Write the fraction for each of the following fractional number :

(a) one-eighth (b) six-ninths

(c) nine-elevenths (d) eight-twelfths

(e) twelve-seventeenths

Sol. (a) $\frac{1}{8}$ (b) $\frac{6}{9}$ (c) $\frac{9}{11}$

(d) $\frac{8}{12}$ (e) $\frac{12}{17}$

Q.7. Write the fractional number (in words) for each of the following fractions :

(a) $\frac{5}{11}$ (b) $\frac{9}{10}$ (c) $\frac{7}{12}$ (d) $\frac{5}{9}$

Sol. (a) Five-eleventh (b) Nine-tenth

(c) Seven-twelfth (d) Five-nineth

Exercise 9.2

Q.1. Write the numerator and denominator of each of the following fractions :

(a) $\frac{1}{7}$ (b) $\frac{7}{10}$ (c) $\frac{11}{24}$

(d) $\frac{10}{30}$ (e) $\frac{7}{23}$

Sol. (a) Num = 1, Deno = 7 (b) Num = 7, Deno =10

(c) Num = 11, Deno = 24 (d) Num = 10, Deno = 30

(e) Num = 7, Deno = 23

Q.2. Write the fraction in which :

(a) Numerator = 5, Denominator = 9

(b) Denominator = 3, Numerator = 7

(c) Denominator = 20, Numerator = 9

(d) Numerator = 24, Denominator = 25

Sol. (a) $\frac{5}{9}$ (b) $\frac{7}{3}$ (c) $\frac{9}{20}$ (d) $\frac{24}{25}$

Q.3. Fill in the blanks :

(a) In $\frac{10}{19}$, the ________ is 10.

(b) In $\frac{8}{25}$, the ________ is 8.

(c) In $\frac{13}{18}$, the numerator is ________.

(d) In $\frac{17}{39}$, the denominator is ________.

(e) In $\frac{16}{31}$, the _____ is 16 and the ____ is 31.

Sol. (a) Numerator (b) Numerator

(c) 13 (d) 39

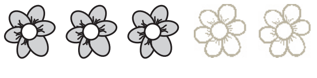
(e) Numerator, Denominator

Exercise 9.3

Q.1. Colour the figure according to fraction :

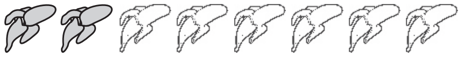
Sol.

(a)

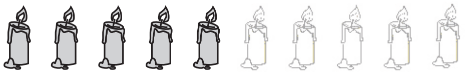


$\boxed{\frac{3}{5}}$

(d)

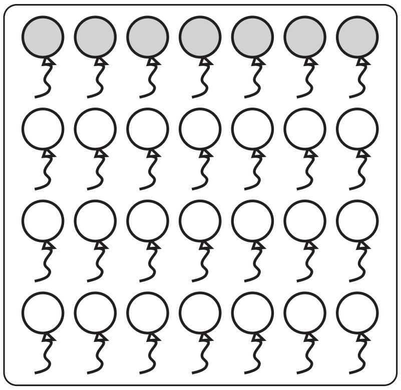


$\boxed{\frac{1}{4}}$

(c)  $\boxed{\frac{1}{2}}$

Q.2. Shade one-fourth of the collection and write the result.

Sol.



$\boxed{\frac{7}{28}}$

Q.3. Solve :

Sol. (a) $\frac{1}{3}$ of 33 = $\boxed{\frac{1}{3} \times 33 = 11}$

(b) $\frac{1}{2}$ of 18 = $\boxed{\frac{1}{2} \times 18 = 9}$

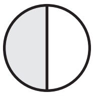
(c) $\frac{1}{5}$ of 25 = $\boxed{\frac{1}{5} \times 25 = 5}$

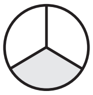
(d) $\frac{1}{4}$ of 56 = $\boxed{\frac{1}{4} \times 56 = 14}$

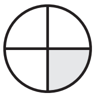
(e) $\frac{1}{6}$ of 24 = $\boxed{\frac{1}{6} \times 24 = 4}$

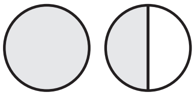
Must Practice Exercise 9

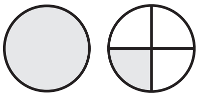
Q.1. Write the fraction for the shaded portion :

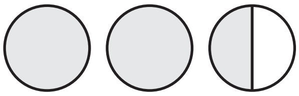
(a) 

(b) 

(c) 

(d) 

(e) 

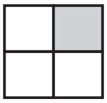
(f) 

Sol. (a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$

(d) $1\frac{1}{2}$ (e) $1\frac{1}{4}$ (e) $2\frac{1}{2}$

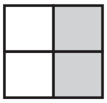
Q.2. Shade the picture as per given number :

Sol. (a)



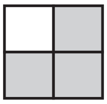
One-fourth
(quarter)

(b)



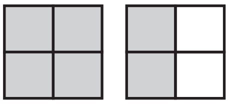
Half

(c)



Three-fourths

(d)



One and a half

Q.3. Write the following in mathematical form :

(a) Quarter (one-fourth)

(b) Half

(c) Three-fourth

(d) One and a half

Sol. (a) $\frac{1}{4}$ (b) $\frac{1}{2}$ (c) $\frac{3}{4}$ (d) $1\frac{1}{2}$

Q.4. Write the numerator and denominator of the following fractions :

(a) $\frac{2}{7}$ (b) $\frac{5}{6}$ (c) $\frac{4}{9}$ (d) $\frac{7}{10}$

Sol. (a) N = 2, D = 7 (b) N = 5, D = 6

(c) N = 4, D = 9 (d) N = 7, D = 10

Q.5. Write a fraction with :

(a) Numerator = 6 and Denominator = 7

(b) Numerator = 7 and Denominator = 9

(c) Numerator = 10 and Denominator = 42

(d) Numerator = 4 and Denominator = 19

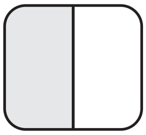
(e) Numerator = 6 and Denominator = 17

Sol. (a) $\frac{6}{7}$ (b) $\frac{7}{9}$ (c) $\frac{10}{42}$

(d) $\frac{4}{19}$ (e) $\frac{6}{17}$

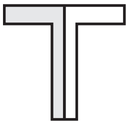
Q.6. What fraction of each figure is shaded? Tick the correct answer :

(a)



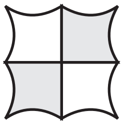
$\frac{1}{3}, \frac{1}{4}, \boxed{\frac{1}{2}}$

(b)



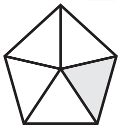
$\frac{3}{4}, \frac{5}{8}, \boxed{\frac{1}{2}}$

(c)



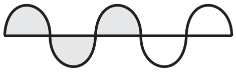
$\frac{2}{3}, \frac{2}{2}, \boxed{\frac{1}{2}}$

(d)



$\frac{1}{4}, \boxed{\frac{1}{5}}, \frac{3}{4}$

(e)



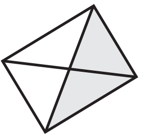
$\boxed{\frac{3}{5}}, \frac{5}{5}, \frac{1}{5}$

Sol. (a) $\frac{1}{2}$ (b) $\frac{1}{2}$ (c) $\frac{1}{2}$

(d) $\frac{1}{5}$ (e) $\frac{3}{5}$

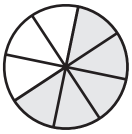
Q.7. Shade each of the figure as indicated below:

Sol. (a)



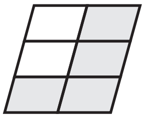
one-half

(b)



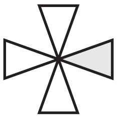
five-eighths

(c)



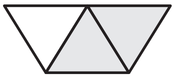
four-sixths

(d)



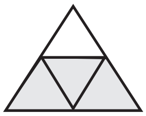
one-fourth

(e)



two-thirds

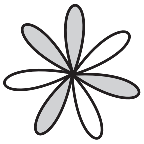
(f)



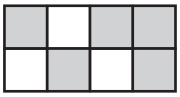
three-fourths

Q.8. Write the shaded and unshaded fraction for the following :

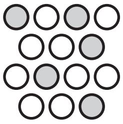
(a)



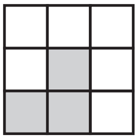
(b)



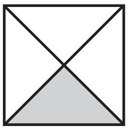
(c)



(d)



(e)



Sol.

	(a)	(b)	(c)	(d)	(e)
Shaded	4	5	5	3	1
Unshaded	3	3	9	6	3

Click Type Questions

Tick (✔) the correct answer :

Q.1. The numerator of the fraction $\frac{13}{15}$ is :

(a) 13 (b) 15

(c) 3 (d) 6

Sol. (a) Numerator = 13,

Q.2. How many quarters will make a whole?

(a) 2 (b) 3

(c) 4 (d) 6

Sol. (c) 4 × Quarter = 1 = $4 \times \frac{1}{4}$

Q.3. What fraction of our National Flag is green?

(a) $\frac{1}{3}$ (b) $\frac{2}{3}$ (c) $\frac{1}{2}$ (d) $\frac{3}{2}$

Sol. (a) Total colour = 3

Fraction for green colour = 1/3

Q.4. What fraction of the candles on the cake do not lit?

(a) $\frac{1}{4}$ (b) $\frac{3}{7}$ (c) $\frac{4}{7}$ (d) $\frac{4}{3}$

Sol. (a) Fraction = $\frac{\text{Candles do not lit}}{\text{Total candle}} = \frac{1}{4}$

Q.5. What is the fraction of each colour in a rainbow?

(a) $\frac{1}{6}$ (b) $\frac{2}{5}$ (c) $\frac{1}{7}$ (d) $\frac{2}{7}$

Sol. (c) Colour in rainbow = 7
Fraction of each colour = 1/7

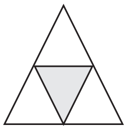
Q.6. How many flowers will make one-fourth of 20 flowers?

(a) 4 (b) 5
(c) 8 (d) 10

Sol. (b) $\frac{1}{4} \times 20 = 5$ flowers

Q.7. In the figure shown alongside, write the fraction for unshaded part :

(a) $\frac{1}{4}$ (b) $\frac{1}{3}$
(c) $\frac{2}{3}$ (d) $\frac{3}{4}$



Sol. (d) Unshaded part = 3
Shaded part = 1
Total part = 4
Fraction for unshaded part = 3/4

Q.8. How many beads will make half of 18 beads?

(a) 4 (b) 5
(c) 6 (d) 9

Sol. (d) $\frac{1}{2} \times 18 = 9$ beads

Q.9. I have done two-thirds of my homework. What fraction is left to be done?

(a) $\frac{1}{3}$ (b) $\frac{1}{2}$ (c) $\frac{2}{3}$ (d) None of these

Sol. (a) $1 - \frac{2}{3} = \frac{1}{1} - \frac{2}{3} = \frac{3-2}{3} = \frac{1}{3}$

Q.10. In the word MATHEMATICS, which fraction is represented by the letter M?

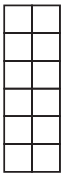
(a) $\frac{1}{7}$ (b) $\frac{2}{8}$ (c) $\frac{3}{10}$ (d) $\frac{2}{11}$

Sol. (d) Here are two 'm' and total letters are = 11
So, fraction is 2/11.

Chapter 10 Area

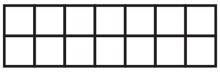
Exercise 10.1

Q.1. Find the area of this rectangle.



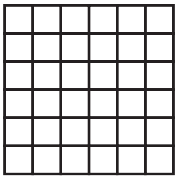
Sol. Row = 7, Column = 2
Area = 7 × 2 = 14 sq. unit

Q.2. Find the area of this rectangle.



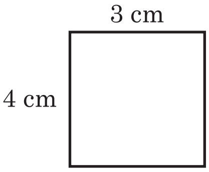
Sol. Row = 2, Column = 7
Area = 2 × 7 = 14 sq. unit

Q.3. Write a number sentence for the total area.



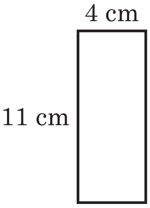
Sol. Area = 6 × 6 = 36 sq. unit

Q.4. Find the area of the rectangle.



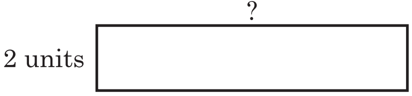
Sol. Area = 3 cm × 4 cm = 12 cm^2

Q.5. Find the area of the rectangle.



Sol. Area = 4 cm × 11 cm = 44 cm^2

Q.6. Find the missing side when the area is 16 square units.

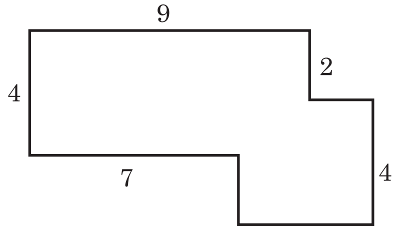


Sol. Area = 16 sq. units, 12 × ? = 16
⇒ ? = 16/2 = 8 units

Q.7. The area of a rectangle is 18 square units, and one of its sides is 3 units. Find the other side.

Sol. Area = 18 sq. units, 3 × other side = 18
⇒ other side = 18/3 = 6 units

Q.8. Find the area of the shape.



Sol. Area (1) = 9 × 4 = 36,

Area (2) = 4 × 4 = 16,

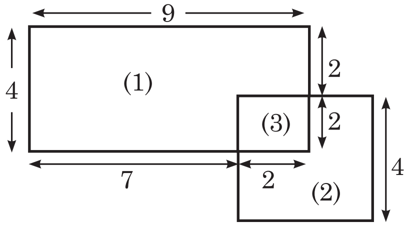
Area (3) = 2 × 2 = 4

Total area of given figure

= Area (1) + Area (2) – Area (3)

= 36 + 16 – 4 = 36 + 12

= 48 sq. units



Must Practice Exercise 10

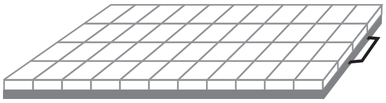
Q.1. Which mobile is larger?

Your brother's mobile

You sister's mobile

Sol. Sister's mobile is larger.

Q.2. As per given picture some sweet pieces are arranged in a tray. Find its area?



Sol. Area = 4 × 11 = 44 sq. units

Q.3. Whose field is larger?

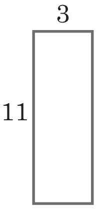
Manav

Mansi

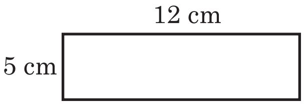
Sol. Mansi's field is larger.

Q.4. Find the area of the following rectangle.

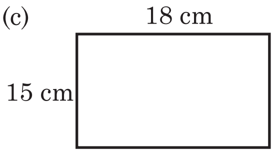
(a)



(b)



(c)



Sol. (a) Area = 3 × 11 = 33 sq. units

(b) Area = 5 × 12 = 60 cm^2

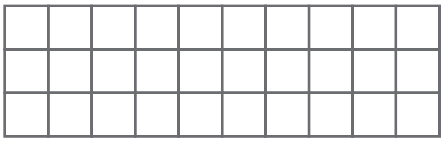
(c) Area = 15 × 18 = 270 cm^2

Q.5. The sides of a rectangle are 20 m and 13 m. Find its area.

Sol. Area = length × breadth

= 20 m × 13 m = 260 m^2

Q.6. Find the are of this rectangle.

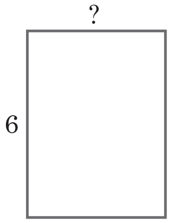


Sol. Area = 10 × 3 = 30 sq. units.

Q.7. The length and breadth of a rectangle are 24 m and 10 m. Find its area.

Sol. Area = length × breadth = 24 × 10 = 240 m^2

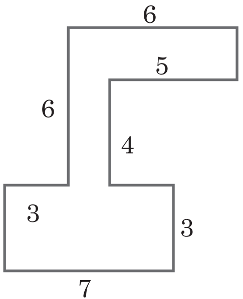
Q.8. Find the missing side when the area is 24 square units.



Sol. Area = 6 × ? = 24

$$\Rightarrow \quad ? = \frac{24}{6} = 4 \text{ units}$$

Q.9. Find the area of the shape given below :



Sol. Area (1) = 6 × 2 = 12 sq. units

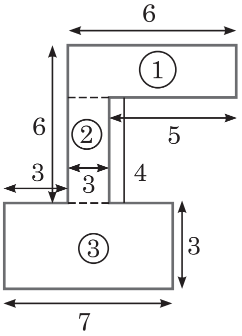
Area (2) = 4 × 1 = 4 sq. units

Area (3) = 3 × 7 = 21 sq. units

Total area = Area (1) + Area (2) + Area (3)

= 12 + 4 + 21

= 16 + 21 = 37 sq. units



Q.10. The area of a rectangle is 18 square units, and one of its sides is 6. Find the other side.

Sol. Area = 18 sq. units

One side = 6 units

Area = 6 × Other side = 18

⇒ Other side = $\frac{\cancel{18}}{\cancel{6}}$ 3 units

∴ Other side = 3 units

Click Type Questions

Tick (✔) the correct option :

Q.1. Area represents the ________ of surface.

(a) length (b) width

(c) volume (d) size

Sol. (d) Size

Q.2. Formula for the area of rectangle is ________.

(a) length + breadth

(b) 2 (length + breadth)

(c) length × breadth

(d) 2 (length × breadth)

Sol. (c) Area = length × breadth

Q.3. We can find larger and smaller area by ________.

(a) seeing (b) guessing

(c) calculating (d) none of these

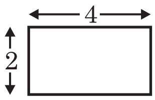
Sol. (c) calculating

Q.4. Area has a unit of ________, if length and breadth are given in cm.

(a) cm (b) cm^2

(c) cm^3 (d) none of these

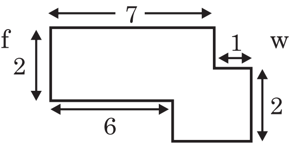
Sol. (b) Square units is area's unit.

Q.5. Area of  will be :

(a) 4 × 2 (b) 4 + 2

(c) 2 (4 + 2) (d) 2 (4 × 2)

Sol. (a) Area = 4 × 2 = 8 sq. units.

Q.6. Area of  will be :

(a) 12 (b) 13

(c) 15 (d) 17

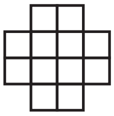
Sol. (d) Area (1) = 2 × 7 = 14

Area (2) = 2 × 2 = 4

Area (3) = 1 × 1 = 1

Total area = 14 + 4 – 1

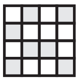
= 17 sq. units

Q.7. Area of  will be :

(a) 12 (b) 14

(c) 16 (d) 18

Sol. (b) Area = 8 + 4 = 12

Q.8. Area of shaded part  will be :

(a) 5 (b) 6
(c) 7 (d) 8

Sol. (c) 7

Chapter 11 Measurement of Length

Exercise 11.1

Q.1. Convert the following into centimetres :

(a) 2 m (b) 7 m (c) 9 m
(d) 12 m (e) 14 m (f) 33 m
(g) 66 m (h) 87 m

Sol. (a) 2 m = 2 × 100 cm = 200 cm
(b) 7 m = 7 × 100 cm = 700 cm
(c) 9 m = 9 × 100 cm = 900 cm
(d) 12 m = 12 × 100 cm = 1200 cm
(e) 14 m = 14 × 100 cm = 1400 cm
(f) 33 m = 33 × 100 cm = 3300 cm
(g) 66 m = 66 × 100 cm = 6600 cm
(h) 87 m = 87 × 100 cm = 8700 cm

Q.2. Convert the following into centimetres :

(a) 3 m 83 cm (b) 5 m 70 cm
(c) 2 m 87 cm (d) 9 m 5 cm
(e) 25 m 6 cm (f) 68 m 42 cm
(g) 94 m 4 cm (h) 80 m 88 cm

Sol. 1 m = 100 cm
(a) 3 m 83 cm = 3 × 100 cm + 83 cm
= 300 cm + 83 cm = 383 cm
(b) 5 m 70 cm = 5 × 100 cm + 70 cm
= 500 cm + 70 cm = 570 cm
(c) 2 m 87 cm = 2 × 100 cm + 87 cm
= 200 cm + 87 cm = 287 cm
(d) 9 m 5 cm = 9 × 100 cm + 5 cm
= 900 cm + 5 cm = 905 cm
(e) 25 m 6 cm = 25 × 100 cm + 6 cm
= 2500 cm + 6 cm = 2506 cm
(f) 68 m 42 cm = 68 × 100 cm + 42 cm
= 6800 cm + 42 cm = 6842 cm
(g) 94 cm 4 cm = 94 × 100 cm + 4 cm
= 9400 m + 4 cm = 9404 cm
(h) 80 m 88 cm = 80 × 100 cm + 88 cm
= 8000 cm + 88 cm = 8088 cm

Q.3. Convert the following into metres and centimetres :

(a) 800 cm (b) 2600 cm
(c) 845 cm (d) 1605 cm
(e) 619 cm (f) 2307 cm
(g) 6410 cm (h) 6504 cm

Sol. $\boxed{100\text{ cm} = 1\text{m}} \quad \Rightarrow \quad \boxed{1\text{ cm} = \frac{1}{100}\text{ m}}$

(a) $800\text{ cm} = \frac{800}{100}\text{ m} = 8\text{ m}$

(b) $2600\text{ cm} = \frac{2600}{100}\text{ m} = 26\text{ m}$

(c) $845\text{ cm} = \frac{845}{100}\text{ m} = 8.45\text{ m} = 8\text{ m } 45\text{ cm}$

(d) $1605\text{ cm} = \frac{1605}{100}\text{ m} = 16.05\text{ m}$
$= 16\text{ m } 5\text{ cm}$

(e) $619\text{ cm} = \frac{619}{100}\text{ m} = 6.19\text{ m}$
$= 6\text{ m } 19\text{ cm}$

(f) $2307\text{ cm} = \frac{2307}{100}\text{ m} = 23.07\text{ m}$
$= 23\text{ m } 7\text{ cm}$

(g) $6410\text{ cm} = \frac{6410}{100}\text{ m} = 64.10\text{ m}$
$= 64\text{ m } 10\text{ cm}$

(h) $6504\text{ cm} = \frac{6504}{100}\text{ m} = 65.04\text{ m}$
$= 65\text{ m } 4\text{ cm}$

Q.4. Convert the following into metres :

(a) 5 km (b) 8 km
(c) 9 km 330 m (d) 6 km 55 m

Sol. $\boxed{1\text{ km} = 1000\text{ m}}$
(a) 5 km = 5 × 1000 m = 5000 m
(b) 8 km = 8 × 1000 m = 8000 m
(c) 9 km 330 = 9 × 1000 m + 330 m
= 9000 m + 330 m = 9330 m
(d) 6 km 55 m = 6 × 1000 + 55 m
= 6000 m + 55 m = 6055 m

Q.5. Convert the following into kilometres and metres :

(a) 4800 m (b) 3756 m

(c) 2800 m (d) 6706 m

Sol. $\boxed{1000 \text{ cm} = 1 \text{ km}} \Rightarrow \boxed{1 \text{ cm} = \frac{1}{1000} \text{ m}}$

(a) $4800 \text{ m} = \frac{4800}{1000} \text{ km} = 4.800 \text{ km}$
$= 4 \text{ km } 800 \text{ m}$

(b) $3756 \text{ m} = \frac{3756}{1000} \text{ km} = 3.756 \text{ km}$
$= 3 \text{ km } 756 \text{ m}$

(c) $2800 \text{ m} = \frac{2800}{1000} \text{ km} = 2.800 \text{ km}$
$= 2 \text{ km } 800 \text{ m}$

(d) $6707 \text{ m} = \frac{6707}{1000} \text{ km} = 6.706 \text{ km}$
$= 6 \text{ km } 706 \text{ m}$

Q.6. Convert the following into millimetres.

(a) 23 m 10 cm (b) 9 m 990 cm
(c) 3 m 5 cm (d) 5 m 35 cm
(e) 25 m 6 cm (f) 18 m 14 cm

Sol. $\boxed{1 \text{ m} = 100 \text{ cm}}$, $\boxed{1 \text{ cm} = 10 \text{ cm}}$

$\boxed{1 \text{ m} = 1000 \text{ mm}}$

(a) 23 m 10 cm
$= 23 \times 1000 \text{ mm} + 10 \times 10 \text{ mm}$
$= 23000 \text{ mm} + 100 \text{ mm} = 23100 \text{ mm}$

(b) 9 mm 990 cm
$= 9 \times 1000 \text{ mm} + 990 \times 10 \text{ mm}$
$= 9000 \text{ mm} + 9900 \text{ m} = 18900 \text{ mm}$

(c) $3 \text{ m } 5 \text{ cm} = 3 \times 1000 \text{ mm} + 5 \times 10 \text{ mm}$
$= 3000 \text{ mm} + 5 \text{ mm} = 3050 \text{ mm}$

(d) $5 \text{ m } 35 \text{ cm} = 5 \times 1000 \text{ mm} + 35 \times 10 \text{ m}$
$= 5000 \text{ mm} + 350 \text{ mm} = 5350 \text{ mm}$

(e) $25 \text{ m } 6 \text{ cm} = 25 \times 1000 \text{ mm} + 6 \times 10 \text{ mm}$
$= 25000 \text{ mm} + 60 \text{ mm} = 25060 \text{ mm}$

(f) $18 \text{ m } 14 \text{ cm} = 18 \times 1000 \text{ m} + 14 \times 10 \text{ mm}$
$= 18000 \text{ mm} + 140 \text{ mm} = 18140 \text{ mm}$

Exercise 11.2

Q.1. Add the following :

(a)
$$\begin{array}{crrrr} & \multicolumn{2}{c}{\text{m}} & \multicolumn{2}{c}{\text{cm}} \\ & 2 & 6 & 2 & 5 \\ + & 1 & 8 & 3 & 4 \\ \hline & & & & \\ \hline \end{array}$$

(b)
$$\begin{array}{crrrr} & \multicolumn{2}{c}{\text{m}} & \multicolumn{2}{c}{\text{cm}} \\ & 4 & 9 & 2 & 6 \\ + & 2 & 7 & 8 & 7 \\ \hline & & & & \\ \hline \end{array}$$

(c)
$$\begin{array}{crrrrr} & \multicolumn{2}{c}{\text{km}} & \multicolumn{3}{c}{\text{m}} \\ & 2 & 0 & 1 & 7 & 5 \\ + & 1 & 2 & 3 & 6 & 8 \\ \hline & & & & & \\ \hline \end{array}$$

(d)
$$\begin{array}{crrrrr} & \multicolumn{2}{c}{\text{km}} & \multicolumn{3}{c}{\text{m}} \\ & 3 & 8 & 6 & 2 & 8 \\ + & 4 & 8 & 1 & 8 & 9 \\ \hline & & & & & \\ \hline \end{array}$$

(e)
$$\begin{array}{crrr} & \multicolumn{2}{c}{\text{cm}} & \text{mm} \\ & 4 & 0 & 2 \\ + & 3 & 8 & 4 \\ \hline & & & \\ \hline \end{array}$$

(f)
$$\begin{array}{crrr} & \multicolumn{2}{c}{\text{cm}} & \text{mm} \\ & 7 & 8 & 3 \\ + & 9 & 2 & 9 \\ \hline & & & \\ \hline \end{array}$$

Sol.

(a)
$$\begin{array}{crrrr} & \multicolumn{2}{c}{\text{m}} & \multicolumn{2}{c}{\text{cm}} \\ & \textcircled{1} & \bigcirc & \bigcirc & \bigcirc \\ & 2 & 6 & 2 & 5 \\ + & 1 & 8 & 3 & 4 \\ \hline & 4 & 4 & 5 & 9 \\ \hline \end{array}$$

(b)
$$\begin{array}{crrrr} & \multicolumn{2}{c}{\text{m}} & \multicolumn{2}{c}{\text{cm}} \\ & \textcircled{1} & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 4 & 9 & 2 & 6 \\ + & 2 & 7 & 8 & 7 \\ \hline & 7 & 7 & 1 & 3 \\ \hline \end{array}$$

(c)
$$\begin{array}{crrrrr} & \multicolumn{2}{c}{\text{km}} & \multicolumn{3}{c}{\text{cm}} \\ & & \bigcirc & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 2 & 0 & 1 & 7 & 5 \\ + & 1 & 2 & 3 & 6 & 8 \\ \hline & 3 & 2 & 5 & 4 & 3 \\ \hline \end{array}$$

(d)
$$\begin{array}{crrrrr} & \multicolumn{2}{c}{\text{km}} & \multicolumn{3}{c}{\text{cm}} \\ & \textcircled{1} & \bigcirc & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 3 & 8 & 6 & 2 & 8 \\ + & 4 & 8 & 1 & 8 & 9 \\ \hline & 8 & 6 & 8 & 1 & 7 \\ \hline \end{array}$$

(e)
$$\begin{array}{crrr} & \multicolumn{2}{c}{\text{cm}} & \text{mm} \\ & 4 & 0 & 2 \\ + & 3 & 8 & 4 \\ \hline & 7 & 8 & 6 \\ \hline \end{array}$$

(f)
$$\begin{array}{crrrr} & & \multicolumn{2}{c}{\text{cm}} & \text{mm} \\ & & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 7 & 8 & 3 \\ + & & 9 & 2 & 9 \\ \hline & 1 & 7 & 1 & 2 \\ \hline \end{array}$$

Q.2. Arrange the columns and add :

(a) 420 m 82 cm, 94 m 10 cm, 950 m 60 cm
(b) 254 m 28 cm, 240 m 51 cm, 210 m 47 cm
(c) 29 km 56 m, 22 km 93 m, 27 km 66 m
(d) 14 km 286 m, 3 km 249 m, 9 km 995 m

Sol. (a)

	m	cm
	① ◯ ①	◯ ◯
	4 2 0	8 2
	9 4	1 0
+	9 5 0	6 0
	1 4 6 5	5 2

(b)

	m	cm
	① ◯ ①	① ◯
	2 5 4	2 8
	2 4 0	5 1
+	2 1 0	4 7
	7 0 5	2 6

(c)

	km	m
	① ②	② ① ◯
	2 9	0 5 6
	2 2	0 9 3
+	2 7	0 6 6
	7 8	2 1 5

(d)

	km	m
	① ①	② ② ◯
	1 4	2 8 6
	3	2 4 9
+	9	9 9 5
	2 7	5 3 0

Exercise 11.3

Q.1. Subtract the following :

Sol. (a)

	m	cm
	⑧	⑮
	8 9	5 7
−	2 3	7 3
	6 5	8 4

(b)

	m	cm
		⑨
	⑧	⑩ ⑯
	6 9	0 6
−	5 8	8 7
	1 0	1 9

(c)

	km	m
		⑩
		⑦ ⓪ ⑮
	8	8 1 5
−	2	7 5 6
	6	0 5 9

(d)

	km	m
		⑦ ⑪
	8	8 1 8
−	7	5 2 3
	1	2 9 5

(e)

	km	m	cm
		⑨	
		① ⑩ ⑩	⑧ ⑮
	5	2 0 0	9 5
−	2	0 7 5	0 7
	3	1 2 5	8 8

(f)

	km	m	cm
		⑪	⑫
	⑦	① ⑪ ⑤	② ⑱
	8	2 1 6	3 8
−	6	7 3 5	8 9
	1	4 8 0	4 9

(g)

	km	m	cm
		⑰	
	⑦ ⑫	④ ⑦ ⑩	⑦ ⑫
	8 2	5 8 0	8 2
−	6 6	0 9 8	0 6
	1 6	4 8 2	7 6

Q.2. Arrange in column and subtract :

(a) 16 km from 18 km 423 m

(b) 78 km from 84 km 520 m

(c) 472 m 52 cm from 625 m 27 cm

(d) 645 m 26 cm from 815 m 97 cm

(e) 78 cm from 2 m 46 cm

(f) 52 cm from 42 m 65 cm

Sol. (a)

	km	m
	1 8	4 2 3
−	1 6	0 0 0
	2	4 2 3

(b)

	km	m
	⑦ ⑭	◯ ◯ ◯
	8 4	5 2 0
−	7 8	0 0 0
	6	5 2 0

(c)

	m	cm
	⑤ ⑫ ④	⑫ ◯
	6 2 5	2 7
−	4 7 2	5 2
	1 5 2	7 5

(d)

	m	cm
	⑦ ⑪ ◯	◯ ◯
	8 1 5	9 7
−	6 4 5	2 6
	1 7 0	7 1

(e)

	m	cm
		⑬
	①	③ ⑯
	2	4 6
−		7 8
	1	6 8

(f)

	m	cm
	◯ ◯	◯ ◯
	4 2	6 5
−		5 2
	4 2	1 3

Exercise 11.4

Q.1. Anshu bought two pieces of rope measuring 39 m 47 cm and 68 m 74 cm. Find the total length of rope.

Sol.

	m	cm
	① ①	① ◯
Length of first piece of rope =	3 9	4 7
Length of second piece of rope = +	6 8	7 4
Total length =	1 0 8	2 1

Q.2. In a journey, Sonu covered 48 km 784 m by train and 86 km 685 m by car. Find the total distance covered by Sonu.

Sol.

	km	m
	① ①	① ◯
Distance covered by train =	4 8	7 8 4
Distance covered by car = +	8 6	6 8 5
Total distance =	1 3 5	4 6 9

Q.3. Gaurav bought two pieces of suit measuring 22 m 76 cm and 34 m 27 cm. Find the total length of the suit pieces.

Sol.

	m	cm
	○ ①	① ○
Length of first suit =	2 2	7 6
Length of second suit =	+ 3 4	2 7
Total length =	5 7	0 3

Q.4. A cloth merchant sold 29 m 68 cm cotton and 26 m 59 cm polyester cloth in a day. How much total cloth did he sell in a day?

Sol.

	m	cm
	① ①	① ○
Length of cotton =	2 9	6 8
Length of polyster =	+ 2 6	5 9
Total length =	5 6	2 7

Q.5. A cloth merchant had 96 m 85 cm long cloth. He sold 78 m 75 cm cloth. How much cloth is left?

Sol.

	m	cm
	⑧ ⑯	○ ○
Total length of cloth =	9 6	8 5
Cloth sold =	– 7 8	7 5
Cloth lefted =	1 8	1 0

Q.6. Janvi had 36 m 40 cm long rope. She used 28 m 25 cm rope. How much rope is now remaining?

Sol.

	m	cm
	② ⑯	③ ⑩
Length of rope =	3 6	4 0
Length of rope used =	– 2 8	2 5
Rope lefted =	8	1 5

Q.7. In a journey of 88 km 200 m, Vinay covered 68 km 700 m by bus and ramaining by motorcycle. How much distance Vinay covered by motorcycle?

Sol.

	km	m
	⑰	
	⑦ ⑦	⑫ ○ ○
Total journey =	8 8	2 0 0
Vinay covered =	– 6 8	7 0 0
Distance lefted =	1 9	5 0 0

Q.8. The distance between Jaipur and Delhi is 154 km 100 m and the distance between Agra and Delhi is 201 km 700 m. Which distance is greater and by how much?

Sol.

	km	m
Distance b/w Jaipur and Delhi =	154	100
Distance b/w Agra and Delhi =	201	700

From the above statements, we see that distance b/w Agra and Delhi is greater.

km	m
⑨	
① ⑩ ⑪	○ ○ ○
2 0 1	7 0 0
– 1 5 4	1 0 0
4 7	6 0 0

Q.9. Tanvay purchased a piece of cloth measuring 26 metres. Out of this cloth, he gave 8 m 35 cm for his shirt, 6 m 65 cm for his pants and 4 m 45 cm for his coat to the tailor. How much cloth is left with him?

Sol.

	m	cm
	①	① ○
Cloth for shirt =	8	3 5
Cloth for pants =	6	6 5
Cloth for coat =	+ 4	4 5
Total cloth =	1 9	4 5

	m	cm
	⑮	⑨
	① ⑤	⑩ ⑩
Cloth purchased =	2 6	9 0
Total cloth =	– 1 9	4 5
Cloth lefted =	6	5 5

Q.10. A shopkeeper had a bale of cloth 68 metres long. He sold 28 m 75 cm to one customer, 26 m 45 cm to another customer and 9 m 85 cm to a third customer. What length of cloth did he sell in all? What length of cloth is left?

Sol.

	m	cm
	② ②	① ○
Cloth sold to first customer =	2 8	7 5
Cloth sold to second customer =	2 6	4 5
Cloth sold to third customer =	+ 9	8 5
Total cloth sold =	6 5	0 5

	m	cm
		⑨
	○ ⑦	⑩ ⑩
Total length of cloth initially =	6 8	0 0
Length of cloth sold =	– 6 5	0 5
Cloth lefted =	2	9 5

Must Practice Exercise 11

Q.1. Circle the suitable unit to measure each of the following :

(a) The length of a book
(b) The length of a chocolate
(c) The length of your foot
(d) The length of a swimming pool
(e) The height of your father

Sol. (a) cm (b) cm
(c) cm (d) m
(e) cm

Q.2. Convert the following into centimetres :

(a) 6 m (b) 20 m 86 cm

Sol. (a) 6 m = 6 × 100 cm = 600 cm

(b) 20 m 86 cm = 20 × 100 cm + 86 cm
= 2000 cm + 86 cm
= 2086 cm

Q.3. Convert the following into metres :

(a) 8 km
(b) 5 km 280 m

Sol. (a) 8 km = 8 × 1000 m = 8000 m

(b) 5 km 280 m = 5 × 1000 m + 280 m
= 5000 m + 280 m = 5280 m

Q.4. Convert the following into metres and centimetres :

(a) 1860 cm
(b) 9835 cm

Sol. (a) 1860 cm = $\frac{1860}{100}$ m = 18.60 m
= 18 m 60 cm

(b) 9835 cm = $\frac{9835}{100}$ m = 98.35 m
= 98 m 35 cm

Q.5. Convert the following into kilometres :

(a) 5000 m (b) 8000 m

Sol. (a) 5000 m = $\frac{5000}{1000}$ km = 5 km

(b) 8000 m = $\frac{8000}{1000}$ km = 8 km

Q.6. Convert the following into kilometres and metres :

(a) 9859 m (b) 2120 m

Sol. (a) 9859 m = $\frac{9859}{1000}$ km = 9.859 km
= 9 km 859 m

(b) 2120 m = $\frac{2120}{1000}$ km = 2.120 km
= 2 km 120 m

Q.7. Add :

Sol. (a)

	m	cm
	93	53
+	32	32
	125	85

(b)

	m	cm
	① ①	① ○
	248	38
+	25	83
	274	21

(c)

	km	m
	① ①	○ ○
	95	166
+	28	383
	123	549

Q.8. Subtract :

Sol. (a)

	m	cm
	○	⑦ ⑫
	8	82
–	3	26
	5	56

(b)

	m	cm
	○ ○	⑤ ⑮
	79	65
–	35	16
	44	49

(c)

	km	m
	46	378
–	33	228
	13	150

Q.9. Add the following :

(a) 74 km 586 m and 55 km 786 m
(b) 63 m 28 cm, 285 m 83 cm and 140 m 63 cm

Sol. (a)

	km	m
	①①	①①○
	74	586
+	55	786
	130	372

(b)

	m	cm
	①○①	①○
	63	28
	285	83
+	140	63
	489	74

Q.10. Subtract the following :

(a) 29 m 60 cm from 68 m 54 cm

(b) 286 m 86 cm from 365 m 60 cm

Sol. (a)

	m	cm
	⑰	
	⑤⑦	⑮○
	6 8	5 4
−	2 9	6 0
	3 8	9 4

(b)

	m	cm
	⑮⑭	⑮
	②⑤④	⑤⑩
	3 6 5	6 0
−	2 8 6	8 6
	7 8	7 4

Q.11. Ajay purchased 26 m 95 cm of red ribbon, 48 m 64 cm of blue ribbon and 18 m 39 cm of green ribbon. Find the total length of the ribbon purchased by Ajay.

Sol.

		m	cm
		②①	①○
Length of red ribbon =		2 6	9 5
Length of blue ribbon =		4 8	6 4
Length of green ribbon =	+	1 8	3 9
Total length of ribbon =		9 3	9 8

Q.12. A rope is 54 m 65 cm long. A piece of 18 m 36 cm is cut from it. What is the length of the remaining rope?

Sol.

		m	cm
		④⑭	⑤⑮
Length of a rope =		5 4	6 5
Length of piece cut from it =	−	1 8	3 6
Rope lefted =		3 6	2 9

Click Type Questions

Tick (✔) the correct answer :

Q.1. 6 m 6 cm = _________ cm.

(a) 660 (b) 6006

(c) 6060 (d) 606

Sol. (d) 6 m 6 cm

= 6 × 100 cm + 6 cm

= 600 cm + 6 cm = 606 cm

Q.2. 96 m 68 cm =

(a) 9018 cm (b) 9668 cm

(c) 9685 cm (d) 9028 cm

Sol. (b) 96 m 68 cm

= 96 × 100 cm + 68 cm

= 9600 cm + 68 cm

= 9668 cm

Q.3. Cloth merchants use a _____ to measure cloth.

(a) ruler (b) metre rod

(c) measuring tape (d) none of these

Sol. (b) metre rod

Q.4. Rod A is 6 m 9 cm long while Rod B is 8 m 6 cm long. B is longer than A by how much?

(a) 3 m 70 cm (b) 2 m 3 cm

(c) 3 m 4 cm (d) 1 m 97 cm

Sol. (d)

		m	cm
		⑦	⑨⑯
Length of rod B =		8	0 6
Length of rod A =	−	6	0 9
Difference of both =		1	9 7

Q.5. The small scale that we commonly keep in our geometry box is marked from 0 to _____ cm.

(a) 5 (b) 10

(c) 12 (d) 15

Sol. (d) 15 cm

Q.6. Which of the following is a standard unit for measuring length?

(a) metre (b) pace

(c) cubit (d) handspan

Sol. (a) metre

Q.7. A wire was cut into two pieces of lengths 4 m 65 cm each. What was the original length of the wire?

(a) 5 m 13 cm (b) 9 m 13 cm

(c) 9 m 30 cm (d) 9 m 90 cm

Sol. (c)

		m	cm
		①	①○
Length of first piece =		4	6 5
Length of second piece =	+	4	6 5
Original length of wire =		9	3 0

Q.8. Two wires are of lengths 8 m 75 cm and 4 m 28 cm respectively. What is the difference of both lengths?

(a) 3 m (b) 4 m

(c) 4 m 47 cm (d) 3 m 3 cm

Sol. (c)

		m	cm
		○	⑥⑮
Length of first wire =		8	7 5
Length of second wire =	−	4	2 8
Difference of both lengths =		4	4 7

Chapter 12 Measurement of Weight

Exercise 12.1

Q.1. Convert into g :

(a) 9 kg
(b) 6 kg
(c) 12 kg
(d) 8 kg 750 g
(e) 6 kg 200 g
(f) 23 kg 50 g
(g) 8 kg 8 g
(h) 20 kg 900 g

Sol. $\boxed{1\text{ kg} = 1000\text{ g}}$

(a) 9 kg = 9 × 1000 g = 9000 g
(b) 6 kg = 6 × 1000 g = 6000 g
(c) 12 kg = 12 × 1000 g = 12000 g
(d) 8 kg 750 g = 8 × 1000 g + 750 g
= 8000 g + 750 g = 8750 g
(e) 6 kg 200 g = 6 × 1000 g + 200 g
= 6000 g + 200 g = 6200 g
(f) 23 kg 50 g = 23 × 1000 g + 50 g
= 23000 g + 50 g = 23050 g
(g) 8 kg 8 g = 8 × 1000 g + 8 g = 8000 g + 8 g
= 8008 g
(h) 20 kg 900 g = 20 × 1000 g + 900 g
= 20000 g + 900 g = 20900 g

Q.2. Convert into mg :

(a) 2 g
(b) 8 g
(c) 15 g
(d) 4 g 50 mg
(e) 8 g 550 mg
(f) 25 g 150 mg
(g) 28 g 419 mg
(h) 85 g 186 mg

Sol. 1 g = 1000 mg

(a) 2 g = 2 × 1000 mg = 2000 mg
(b) 8 g = 8 × 1000 mg = 8000 mg
(c) 15 g = 15 × 1000 mg = 15000 mg
(d) 4 g 50 mg = 4 × 1000 mg + 50 mg
= 4000 mg + 50 mg = 4050 mg
(e) 8 g 550 mg = 8 × 1000 mg + 550 mg
= 8000 mg + 550 mg = 8550 mg
(f) 25 g 150 mg = 25 × 1000 mg + 150 mg
= 25000 mg + 150 mg = 25150 mg
(g) 28 g 419 mg = 28 × 1000 mg + 419 mg
= 28000 mg + 419 mg = 28419 mg
(h) 85 g 186 mg = 85 × 1000 mg + 186 mg
= 85000 mg + 186 mg = 85186 mg

Q.3. Convert into kg and g :

(a) 8000 g
(b) 8900 g
(c) 7500 g
(d) 9089 g
(e) 2000 g
(f) 3906 g
(g) 6502 g
(h) 8956 g

Sol. $1\text{ kg} = 1000\text{ g} \Rightarrow \boxed{1\text{ g} = \frac{1}{1000}\text{ kg}}$

(a) $8000\text{ g} = \frac{8000}{1000}\text{ kg} = 8\text{ kg}$

(b) $8900\text{ g} = \frac{8900}{1000}\text{ kg} = 8.900\text{ kg}$
= 8 kg 900 g

(c) $7500\text{ g} = \frac{7500}{1000}\text{ kg} = 7.500\text{ kg}$
= 7 kg 500 g

(d) $9089\text{ g} = \frac{9089}{1000}\text{ kg} = 9.089\text{ kg}$
= 9 kg 89 g

(e) $2000\text{ g} = \frac{2000}{1000}\text{ kg} = 2\text{ kg}$

(f) $3906\text{ g} = \frac{3906}{1000}\text{ kg} = 3.906\text{ kg}$
= 3 kg 906 g

(g) $6502\text{ g} = \frac{6502}{1000}\text{ kg} = 6.502\text{ kg}$
= 6 kg 502 g

(h) $8956\text{ g} = \frac{8956}{1000}\text{ kg} = 8.956\text{ kg}$
= 8 kg 956 g

Q.4. Convert into g and mg :

(a) 5860 mg
(b) 4622 mg
(c) 7839 mg
(d) 5898 mg
(e) 6845 mg
(f) 5678 mg
(g) 3000 mg
(h) 5872 mg

Sol. $\boxed{1\text{ g} = 1000\text{ mg}} \Rightarrow \boxed{1\text{ mg} = \frac{1}{1000}\text{ g}}$

(a) $5860\text{ mg} = \frac{5860}{1000}\text{ g} = 5.860\text{ g}$
= 5 g 860 mg

(b) 4622 mg = $\frac{4622}{1000}$ g = 4.622 g

= 4 g 622 mg

(c) 7839 mg = $\frac{7839}{1000}$ g = 7.839 g

= 7 g 839 mg

(d) 5898 mg = $\frac{5898}{1000}$ g = 5.898 g

= 5 g 898 mg

(e) 6845 mg = $\frac{6845}{1000}$ g = 6.845 g

= 6 g 845 mg

(f) 5678 mg = $\frac{5678}{1000}$ g = 5.678 g

= 5 g 678 mg

(g) 3000 mg = $\frac{3000}{1000}$ g = 3.000 g = 3 g

(h) 5872 mg = $\frac{5872}{1000}$ g = 5.872 g

= 5 g 872 mg

Exercise 12.2

Q.1. Add :

Sol. (a)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & & \textcircled{1} & & \textcircled{1} & \textcircled{1} & \bigcirc \\
 & & 9 & & 9 & 0 & 7 \\
+ & & 2 & & 8 & 9 & 4 \\
\hline
 & 1 & 2 & & 8 & 0 & 1 \\
\hline
\end{array}$$

(b)

$$\begin{array}{ccccccc}
 & & \text{g} & & & \text{mg} & \\
 & \textcircled{2} & \textcircled{1} & & \bigcirc & \textcircled{1} & \bigcirc \\
 & 2 & 9 & & 2 & 6 & 6 \\
 & 1 & 8 & & 0 & 0 & 3 \\
+ & 3 & 9 & & 9 & 0 & 4 \\
\hline
 & 8 & 7 & & 1 & 7 & 3 \\
\hline
\end{array}$$

(c)

$$\begin{array}{cccccccc}
 & & & \text{kg} & & & \text{g} & \\
 & & \bigcirc & \textcircled{1} & & \textcircled{1} & \bigcirc & \bigcirc \\
 & & 3 & 2 & & 7 & 5 & 0 \\
+ & & 7 & 4 & & 2 & 8 & 0 \\
\hline
 & 1 & 0 & 7 & & 0 & 3 & 0 \\
\hline
\end{array}$$

(d)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & \bigcirc & \textcircled{1} & & \textcircled{1} & \textcircled{1} & \bigcirc \\
 & 2 & 4 & & 5 & 8 & 8 \\
+ & 1 & 2 & & 8 & 4 & 7 \\
\hline
 & 3 & 7 & & 4 & 3 & 5 \\
\hline
\end{array}$$

(e)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & \textcircled{1} & \bigcirc & & \textcircled{1} & \textcircled{1} & \bigcirc \\
 & 2 & 5 & & 5 & 0 & 2 \\
+ & 1 & 8 & & 0 & 9 & 8 \\
\hline
 & 4 & 3 & & 6 & 0 & 0 \\
\hline
\end{array}$$

(f)

$$\begin{array}{cccccccc}
 & & & \text{g} & & & \text{mg} & \\
 & \textcircled{1} & \textcircled{1} & \textcircled{1} & & \textcircled{1} & \textcircled{1} & \bigcirc \\
 & 7 & 3 & 4 & & 5 & 0 & 7 \\
 & & 8 & 7 & & 2 & 8 & 7 \\
+ & & 4 & 6 & & 8 & 5 & 4 \\
\hline
 & 8 & 6 & 8 & & 6 & 4 & 8 \\
\hline
\end{array}$$

Q.2. Arrange in columns and add :

(a) 8 kg 396 g, 4 kg 847 g, 7 kg 78 g

(b) 8 kg 874 g, 9 kg 504 g, 4 kg 7 g

(c) 24 g 109 mg, 57 g 298 mg, 3 g 004 mg

(d) 66 g 300 mg, 417 g 59 mg, 99 g 8 mg

Sol. (a)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & & \textcircled{1} & & \textcircled{2} & \textcircled{2} & \bigcirc \\
 & & 8 & & 3 & 9 & 6 \\
 & & 4 & & 8 & 4 & 7 \\
+ & & 7 & & 0 & 7 & 8 \\
\hline
 & 2 & 0 & & 3 & 2 & 1 \\
\hline
\end{array}$$

(b)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & & \textcircled{1} & & \bigcirc & \textcircled{1} & \bigcirc \\
 & & 8 & & 8 & 7 & 4 \\
 & & 9 & & 5 & 0 & 4 \\
+ & & 4 & & 0 & 0 & 7 \\
\hline
 & 2 & 2 & & 3 & 8 & 5 \\
\hline
\end{array}$$

(c)

$$\begin{array}{ccccccc}
 & & \text{g} & & & \text{mg} & \\
 & \textcircled{1} & \bigcirc & & \textcircled{1} & \textcircled{2} & \bigcirc \\
 & 2 & 4 & & 1 & 0 & 9 \\
 & 5 & 7 & & 2 & 9 & 8 \\
+ & & 3 & & 0 & 0 & 4 \\
\hline
 & 8 & 4 & & 4 & 1 & 1 \\
\hline
\end{array}$$

(d)

$$\begin{array}{cccccccc}
 & & & \text{g} & & & \text{mg} & \\
 & \textcircled{1} & \textcircled{2} & \bigcirc & & \bigcirc & \textcircled{1} & \bigcirc \\
 & & 6 & 6 & & 3 & 0 & 0 \\
 & 4 & 1 & 7 & & 0 & 5 & 9 \\
+ & & 9 & 9 & & 0 & 0 & 8 \\
\hline
 & 5 & 8 & 2 & & 3 & 6 & 7 \\
\hline
\end{array}$$

Q.3. Subtract :

Sol. (a)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & & \bigcirc & & \textcircled{6} & \textcircled{10} & \bigcirc \\
 & & 8 & & 7 & 0 & 9 \\
- & & 6 & & 5 & 9 & 4 \\
\hline
 & & 2 & & 1 & 1 & 5 \\
\hline
\end{array}$$

(b)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & \bigcirc & \textcircled{11} & & \textcircled{14} & \textcircled{11} & \bigcirc \\
 & \textcircled{1} & \textcircled{1} & & \textcircled{4} & \textcircled{1} & \textcircled{16} \\
 & 2 & 2 & & 5 & 2 & 6 \\
- & 1 & 7 & & 5 & 7 & 8 \\
\hline
 & & 4 & & 9 & 4 & 8 \\
\hline
\end{array}$$

(c)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & \bigcirc & \textcircled{15} & & \textcircled{9} & \textcircled{17} & \bigcirc \\
 & \textcircled{1} & \textcircled{5} & & \textcircled{10} & \textcircled{7} & \textcircled{10} \\
 & 2 & 6 & & 0 & 8 & 0 \\
- & 1 & 7 & & 9 & 9 & 2 \\
\hline
 & & 8 & & 0 & 8 & 8 \\
\hline
\end{array}$$

(d)

$$\begin{array}{ccccccc}
 & & \text{g} & & & \text{mg} & \\
 & \bigcirc & \bigcirc & & \bigcirc & \textcircled{17} & \bigcirc \\
 & \textcircled{3} & \textcircled{12} & & \textcircled{7} & \textcircled{7} & \textcircled{15} \\
 & 4 & 2 & & 8 & 8 & 5 \\
- & & 8 & & 4 & 9 & 8 \\
\hline
 & 3 & 4 & & 3 & 8 & 7 \\
\hline
\end{array}$$

(e)

$$\begin{array}{ccccccc}
 & & \text{kg} & & & \text{g} & \\
 & \bigcirc & \textcircled{14} & & \bigcirc & \bigcirc & \bigcirc \\
 & \textcircled{7} & \textcircled{4} & & \textcircled{14} & \bigcirc & \bigcirc \\
 & 8 & 5 & & 4 & 0 & 5 \\
- & 4 & 8 & & 6 & 0 & 0 \\
\hline
 & 3 & 6 & & 8 & 0 & 5 \\
\hline
\end{array}$$

(f)

$$\begin{array}{cccccccc}
 & & & \text{kg} & & & \text{g} & \\
 & \bigcirc & \textcircled{11} & \bigcirc & & \bigcirc & \textcircled{10} & \bigcirc \\
 & \textcircled{1} & \textcircled{1} & \textcircled{15} & & \textcircled{5} & \textcircled{0} & \textcircled{13} \\
 & 2 & 2 & 5 & & 6 & 1 & 3 \\
- & & 7 & 8 & & 5 & 6 & 8 \\
\hline
 & 1 & 4 & 7 & & 0 & 4 & 5 \\
\hline
\end{array}$$

Q.4. Arrange in columns and subtract :

(a) 52 g 8 mg from 68 g 9 mg

(b) 15 g 25 mg from 24 g

(c) 14 kg 859 g from 25 kg 3 g

(d) 23 kg 359 g from 45 kg 4 g

(e) 15 g 39 mg from 25 g

Sol. (a)

	g	mg
	6 8	0 0 9
−	5 2	0 0 8
	1 6	0 0 1

(b)

	g	mg
	○⑬	⑨⑨○
	①③	⑩⑩⑩
	2 4	0 0 0
−	1 5	0 2 5
	8	9 7 5

(c)

	kg	g
	○○	⑨⑨○
	○④	⑩⑩⑬
	2 5	0 0 3
−	1 4	8 5 9
	1 0	1 4 4

(d)

	kg	g
	○○	⑨⑨○
	○④	⑩⑩⑭
	4 5	0 0 4
−	2 3	3 5 9
	2 1	6 4 5

(e)

	g	mg
	○⑭	⑨⑨○
	①④	⑩⑩⑩
	2 5	0 0 0
−	1 5	0 3 9
	9	9 6 1

Exercise 12.3

Q.1. The weight of two bags of potatoes is 442 kg 750 g and 51 kg 650 g. What is the total weight of the both potato bags?

Sol.

	kg	g
	①	①
Weight of first potato bag =	4 4 2	7 5 0
Weight of second potato bag =	+ 5 1	6 5 0
Total weight =	4 9 4	4 0 0

Q.2. Renu bought 9 kg 750 g ghee and 8 kg 850 g fruits. Find the total weight of both items.

Sol.

	kg	g
	①	①○○
Weight of ghee =	9	7 5 0
Weight of fruits =	+ 8	8 5 0
Total weight =	1 8	6 0 0

Q.3. The weight of two boys is 36 kg 850 g and 32 kg 500 g. Find the total weight of the two boys?

Sol.

	kg	g
	①○	○○○
Weight of first boy =	3 6	8 5 0
Weight of second boy =	+ 3 2	5 0 0
Total weight =	6 9	3 5 0

Q.4. Anuradha bought 45 kg 280 g flour and 14 kg 950 g vegetables. Find the total weight.

Sol.

	kg	g
	①①	①○○
Weight of flour =	4 5	2 8 0
Weight of vegetables =	+ 1 4	9 5 0
Total weight =	6 0	2 3 0

Q.5. Amit bought 5 kg 500 g pulses and 3 kg 250 g sugar. Find the total weight.

Sol.

	kg	g
	○	○○○
Weight of pulses =	5	5 0 0
Weight of sugar =	+ 3	2 5 0
Total weight =	8	7 5 0

Q.6. A fruit-seller had 75 kg 500 g fruits. He sold 48 kg 750 g fruits. How much fruits were left to fruit-seller?

Sol.

	kg	g
	○⑭	⑭○○
	⑥④	④⑩○
A fruit-seller had =	7 5	5 0 0
Fruits sold =	− 4 8	7 5 0
Fruits lefted =	2 6	7 5 0

Q.7. For making cake, Varun purchased 88 kg 500 g flour. If 69 kg 750 g flour was used in making cake, how much flour was left?

Sol.

	kg	g
	○⑰	⑭○○
	⑦⑦	④⑩○
Flour purchased =	8 8	5 0 0
Flour used =	− 6 9	7 5 0
Flour lefted =	1 8	7 5 0

Q.8. Manu purchased 83 kg 200 g vegetables. She used 43 kg 500 g vegetables. How much vegetables was left unused?

Sol.

	kg	g
	○⑫	○○○
	⑦②	⑫○○
Vegetables purchased =	8 3	2 0 0
Vegetables used =	− 4 3	5 0 0
Vegetables lefted =	3 9	7 0 0

Q.9. The total weight of three girls is 86 kg. If two of them weigh 37 kg 325 g and 19 kg 775 g respectively, what is the weight of the third girl?

Sol.

	kg	g
	①①	①①○
Weight of first girl =	3 7	3 2 5
Weight of second girl =	+ 1 9	7 7 5
Total weight of both =	5 7	1 0 0

	kg	g
	○⑮	○○○
	⑦⑤	⑩○○
Weight of three girls =	8 6	0 0 0
Weight of two girls =	– 5 7	1 0 0
Weight of third girl =	2 8	9 0 0

Q.10. The total weight of a bag containing three packets of wheat, tea and rice was 27 kg. If the weight of the wheat was 8 kg 650 g and the weight of tea was 5 kg 476 g find the weight of the packet containing rice.

Sol.

	kg	g
	①	①○○
Weight of wheat =	8	6 5 0
Weight of tea =	+ 5	4 7 6
Weight of wheat and tea =	1 4	1 2 6

	kg	g
	○○	⑨⑨○
	○⑥	⑩⑩⑩
Total weight of all =	2 7	0 0 0
Weight of wheat and tea =	– 1 4	1 2 6
Weight of rice =	1 2	8 7 4

Practice Exercise 12

Q.1. Write the suitable unit (kg or g) for measuring the weight of :

(a) a tomato (b) a cricket ball

(c) a loaf of bread (d) a pumpkin

(e) your maths book (f) your school bag

(g) a chocolate bar (h) yourself

Sol. (a) kg (b) g

(c) g (d) kg

(e) g (f) kg

(g) g (h) kg

Q.2. Convert the following into grams :

(a) 6 kg (b) 8 kg 684 g

(c) 3 kg 400 g (d) 9 kg 90 g

(e) 7 kg 28 g (f) 2 kg 1 g

Sol. (a) $6 \text{ kg} = 6 \times 1000 \text{ g} = 6000 \text{ g}$

(b) $8 \text{ kg } 684 \text{ kg} = 8 \times 1000 \text{ g} + 684 \text{ g}$

$= 8000 \text{ g} + 684 \text{ g} = 8684 \text{ g}$

(c) $3 \text{ kg } 400 \text{ g} = 3 \times 1000 \text{ g} + 400 \text{ g}$

$= 3000 \text{ g} + 400 \text{ g} = 3400 \text{ g}$

(d) $9 \text{ kg } 90 \text{ g} = 9 \times 1000 \text{ g} + 90 \text{ g}$

$= 9000 \text{ g} + 90 \text{ g} = 9090 \text{ g}$

(e) $7 \text{ kg } 28 \text{ g} = 7 \times 1000 \text{ g} + 28 \text{ g}$

$= 7000 \text{ g} + 28 \text{ g} = 7028 \text{ g}$

(f) $2 \text{ kg } 1 \text{ g} = 2 \times 1000 \text{ g} + 1 \text{ g}$

$= 2000 \text{ g} + 1 \text{ g} = 2001 \text{ g}$

Q.3. Convert the following into kilograms and grams :

(a) 7000 g (b) 6764 g

(c) 2085 g (d) 8006 g

(e) 9050 g (f) 8875 g

Sol. (a) $7000 \text{ g} = \frac{7000}{1000} \text{ kg} = 7 \text{ kg}$

(b) $6764 \text{ g} = \frac{6764}{1000} \text{ kg} = 6.764 \text{ kg}$

$= 6 \text{ kg } 764 \text{ g}$

(c) $2085 \text{ g} = \frac{2085}{1000} \text{ kg} = 2.085 \text{ kg}$

$= 2 \text{ kg } 85 \text{ g}$

(d) $8006 \text{ g} = \frac{8006}{1000} \text{ kg} = 8.006 \text{ kg}$

$= 8 \text{ kg } 6 \text{ g}$

(e) $9050 \text{ g} = \frac{9050}{1000} \text{ kg} = 9.050 \text{ kg}$

$= 9 \text{ kg } 50 \text{ g}$

(f) $8875 \text{ g} = \frac{8875}{1000} \text{ kg} = 8.875 \text{ kg}$

$= 8 \text{ kg } 875 \text{ g}$

Q.4. Add the following :

Sol. (a)

g	mg
○①	①①○
22	785
+ 34	467
57	252

(b)

g	mg
①○	○①○
45	402
+ 38	068
83	470

(c)

kg	g
○①	○①○
42	209
+ 92	956
135	165

Q.5. Subtract the following :

Sol. (a)

kg	g
○	○⑨○
○	⑥⑩⑮
9	705
− 7	286
2	419

(b)

kg	g
○	⑪⑨○
⑤	①⑩⑮
6	205
− 2	508
3	697

(a)

kg	g
⑧⑰	○④⑩
97	550
− 78	329
19	221

Q.6. Add :

(a) 8 kg 200 g, 9 kg 700 g and 10 kg 500 g

(b) 43 kg 300 g, 26 kg 50 g and 67 kg 600 g

(c) 26 kg 750 g, 49 kg 756 g and 23 kg 500 g

(d) 86 kg 850 g, 91 kg 200 g and 92 kg 100 g

Sol. (a)

kg	g
①①	○○○
8	200
9	700
+ 10	500
28	400

(b)

kg	g
①○	○○○
43	300
26	050
+ 67	600
136	950

(c)

kg	g
②②	①○○
26	750
49	756
+ 23	500
100	006

(d)

kg	g
①①	○○○
86	850
91	200
+ 92	100
270	150

Q.7. Subtract :

(a) 2 kg 500 g from 7 kg 700 g

(b) 24 kg 600 g from 29 kg 900 g

(c) 7 kg 600 g from 8 kg 200 g

(d) 38 kg 650 g from 62 kg 200 g

Sol. (a)

kg	g
7	700
− 2	500
5	200

(b)

kg	g
29	900
− 24	600
05	300

(c)

kg	g
⑦	⑫○○
8	200
− 7	600
0	600

(d)

kg	g
⑪	⑪
⑤①	①⑩○
62	200
− 38	650
23	550

Q.8. An empty tin of ghee weighs 2 kg 700 g. When it is full of ghee, it weighs 87 kg 150 g. Find the weight of ghee in it.

Sol.

	kg	g
	○⑥	⑪○○
Weight of tin with ghee =	87	150
Weight of empty tin =	− 2	700
Weight of ghee =	84	450

Q.9. Brijesh purchased 8 kg 350 g of sugar, 650 g of tea and 8 kg 250 g of pulses from a shop. What was the total weight of all the articles purchased by him?

Sol.

	kg	g
	①	①○○
Weight of sugar =	8	350
Weight of tea =		650
Weight of pulses =	+ 8	250
Total weight =	17	250

Q.10. Raman bought 6 kg 260 g apples, 8 kg 500 g pears and 2 kg 260 g guavas. Find the total weight of fruits purchased by Raman.

Sol.

$$\begin{array}{rcc} & \text{kg} & \text{g} \\ & \textcircled{1} & \textcircled{1}\bigcirc\bigcirc \\ \text{Weight of apples} = & 6 & 2\ 6\ 0 \\ \text{Weight of pears} = & 8 & 5\ 0\ 0 \\ \text{Weight of guavas} = & +\ 2 & 2\ 6\ 0 \\ \hline \text{Total weight} = & 1\ 7 & 0\ 2\ 0 \\ \hline \end{array}$$

Click Types Questions

Tick (✔) the correct answer.

Q.1. If 8 mangoes weigh 1 kg, the weight of each mango is :

(a) 100 g (b) 125 g

(c) 250 g (d) 500 g

Sol. (b) Weight of 8 mangoes = 1 kg = 1000 g

$$\text{Weight of 1 mango} = \frac{1000}{8}\text{ g} = 125\text{ g}$$

Q.2. Which of the following would weigh closest to 50 kg?

(a) a butterfly (b) a dog

(c) a cow (d) a bus

Sol. (b) a dog

Q.3. 13 kg 60 g is equal to :

(a) 13600 g (b) 13006 g

(c) 13060 g (d) 13660 g

Sol. (c) 13 kg 60 g = 13 × 1000 g + 60 g

= 13060 g

Q.4. Which the following units would you use to measure the weight of a bike ?

(a) gram (b) milligram

(c) kilogram (d) miles

Sol. (c) kilogram

Q.5. If 9 potatoes together weigh 450 g, what is the weight of each potato?

(a) 50 g (b) 100 g

(c) 150 g (d) 200 g

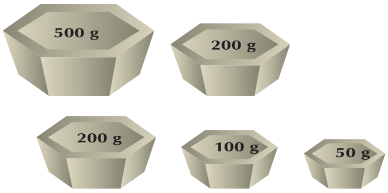
Sol. (a) Weight of 9 potatoes = 450 g

$$\text{Weight of 1 potato} = \frac{\cancel{450}^{\,50}}{\cancel{9}}$$

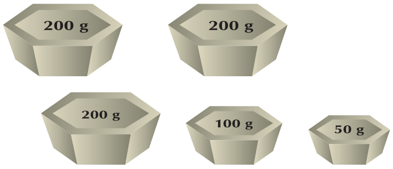
$$= 50\text{ g}$$

Q.6. Which of the following is equal to 1 kg?

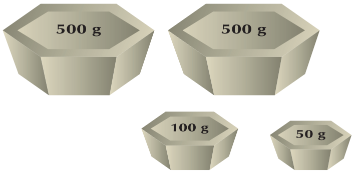
(a)



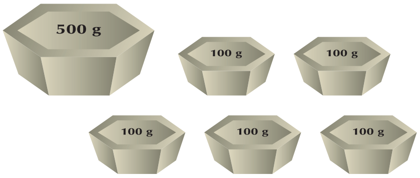
(b)



(c)



(d)



Sol. (d) 500 g + 100 g + 100 g + 100 g + 100 g + 100 g

= 500 g + 500 g = 1000 g

Q.7. 20 apples weigh as much as 4 watermelons. How many watermelons would weigh the same as 25 apples?

(a) 3 (b) 4

(c) 5 (d) 6

Sol. (c) Weight of 20 apples

= weight of 4 watermelons

∴ Weight of 1 apple

$$= \text{Weight of } \frac{4}{20} \text{ watermelons}$$

⇒ Weight of 25 apples

$$= \text{Weight of } \overset{5}{\cancel{25}} \times \frac{\cancel{4}}{\cancel{20}_{5}} \text{ watermelons}$$

= weight 5 watermelons

Q.8. 3 kg + 380 g = ________ g

(a) 3380 (b) 1590

(c) 2780 (d) 2620

Sol. (a) 3 kg + 380 g = 3000 g + 380 g
= 3380 g

Q.9. 6 kg – 4 kg 375 g = ?

(a) 1 kg 625 g (b) 3 kg 625 g
(c) 4 kg 650 g (d) 6 kg 650 g

Sol. (a) (6 – 4.375) kg = 1.625 kg
= 1 kg 625 g

Q.10. 9675 g – 2 kg 660 g = ________ g

(a) 1125 (b) 2025
(c) 6125 (d) 7015

Sol. (d) 9675 g – 2 × 1000 g + 660 g
= 9675 g – 2660 g = 7015 g

Chapter 13 Measurement of Capacity

Exercise 13.1

Q.1. Convert into mL :

(a) 9 L (b) 13 L
(c) 6 L (d) 6 L 200 mL
(e) 28 L 759 mL (f) 23 L 85 mL
(g) 42 L 495 mL (h) 28 L 405 mL

Sol. $\boxed{1\text{ L} = 1000\text{ mL}}$

(a) 9 L = 9 × 1000 mL = 9000 mL
(b) 13 L = 13 × 1000 mL = 13000 mL
(c) 6 L = 6 × 1000 mL = 6000 mL
(d) 6 L 200 mL = 6 × 1000 mL + 200 mL
= 6000 mL + 200 mL = 6200 mL
(e) 28 L 759 mL = 28 × 1000 mL + 759 mL
= 28000 mL + 759 mL = 28759 mL
(f) 23 L 85 mL = 23 × 1000 mL + 85 mL
= 23000 mL + 85 mL = 23085 mL
(g) 42 L 495 mL = 42 × 1000 mL + 495 mL
= 42000 mL + 495 mL = 42495 mL
(h) 28 L 405 mL = 28 × 1000 mL + 405 mL
= 28000 mL + 405 mL = 28405 mL

Q.2. Convert into litres and millilitres :

(a) 2000 mL (b) 2735 mL
(c) 2453 mL (d) 2090 mL
(e) 9003 mL (f) 5250 mL
(g) 9089 mL (h) 9765 mL

Sol. $1\text{L} = 1000\text{ mL} \Rightarrow \boxed{1\text{ mL} = \frac{1}{1000}\text{ L}}$

(a) $2000\text{ mL} = \frac{2000}{1000}\text{ L} = 2\text{ L}$

(b) $2735\text{ mL} = \frac{2735}{1000}\text{ L} = 2.735\text{ L}$
= 2 L 735 mL

(c) $2453\text{ mL} = \frac{2453}{1000}\text{ L} = 2.453\text{ L}$
= 2 L 453 mL

(d) $2090\text{ mL} = \frac{2090}{1000}\text{ L} = 2.090\text{ L}$
= 2 L 90 mL

(e) $9003\text{ mL} = \frac{9003}{1000}\text{ L} = 9.003\text{ L}$
= 9 L 3 mL

(f) $5250\text{ mL} = \frac{5250}{1000}\text{ L} = 5.250\text{ L}$
= 5 L 250 mL

(g) $9089\text{ mL} = \frac{9089}{1000}\text{ L} = 9.089\text{ L}$
= 9 L 89 mL

(h) $9765\text{ mL} = \frac{9765}{1000}\text{ L} = 9.765\text{ L}$
= 9 L 765 mL

Exercise 13.2

Q.1. Add :

Sol.

(a)
$$\begin{array}{cccccc} & \multicolumn{2}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\ & \bigcirc & \textcircled{1} & \bigcirc & \textcircled{1} & \bigcirc \\ & 6 & 1 & 7 & 5 & 2 \\ + & 9 & 1 & 6 & 2 & 8 \\ \hline 1 & 5 & 3 & 3 & 8 & 0 \\ \hline \end{array}$$

(b)
$$\begin{array}{cccccc} & \multicolumn{2}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\ & \textcircled{1} & \bigcirc & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 2 & 6 & 2 & 7 & 5 \\ + & 1 & 9 & 5 & 9 & 6 \\ \hline & 4 & 5 & 8 & 7 & 1 \\ \hline \end{array}$$

(c)
$$\begin{array}{cccccc} & \multicolumn{2}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\ & \textcircled{1} & \bigcirc & \textcircled{1} & \bigcirc & \bigcirc \\ & 9 & 2 & 3 & 7 & 5 \\ + & 1 & 8 & 3 & 3 & 3 \\ \hline 1 & 1 & 0 & 7 & 0 & 8 \\ \hline \end{array}$$

(d)
$$\begin{array}{cccccc} & \multicolumn{2}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\ & \textcircled{1} & \bigcirc & \textcircled{1} & \textcircled{1} & \bigcirc \\ & 2 & 9 & 5 & 3 & 2 \\ + & 3 & 7 & 3 & 7 & 9 \\ \hline & 6 & 6 & 9 & 1 & 1 \\ \hline \end{array}$$

(e)
$$\begin{array}{cccccc} & \multicolumn{2}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\ & \bigcirc & \bigcirc & \bigcirc & \textcircled{2} & \bigcirc \\ & & 3 & 3 & 3 & 9 \\ & 2 & 2 & 2 & 2 & 9 \\ + & 3 & 1 & 1 & 1 & 9 \\ \hline & 5 & 6 & 6 & 8 & 7 \\ \hline \end{array}$$

(f)
$$\begin{array}{cccccc} & \multicolumn{2}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\ & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \bigcirc \\ & & 8 & 7 & 8 & 5 \\ & & 3 & 3 & 2 & 3 \\ & + & 5 & 2 & 7 & 5 \\ \hline & 1 & 7 & 3 & 8 & 3 \\ \hline \end{array}$$

Q.2. Arrange in columns and add :

(a) 17 L 627 mL, 9 L 437 mL, 14 L 909 mL

(b) 23 L 310 mL, 17 L 70 mL, 661 mL

(c) 84 mL, 1903 mL, 1877 mL

(d) 31 L, 72 L, 108 L, 1479 mL

Sol.

(a)	L	mL
	②①	○②○
	17	627
	9	437
+	14	909
	41	973

(b)	L	mL
	①①	①○○
	23	310
	17	070
+		661
	41	041

(c)	L	mL
		①①①○
		84
		1903
+		1877
		3864

(d)	L	mL
	①①○	○○○
	31	000
	72	000
	108	000
+		479
	2111	479

= 3864 mL = 3 L 864 mL

Exercise 13.3

Q.1. Subtract :

Sol.

(a)	L	mL
	86	986
−	42	643
	44	343

(b)	L	mL
	⑬	⑪⑩
	②③	①⓪⑩
	34	210
−	28	463
	5	747

(c)	L	mL
	555	777
−	213	667
	342	110

(d)	L	mL
		⑬
		③③⑭
	199	444
−	177	278
	22	166

(e)	L	mL
		⑦⑩
	19	980
−	12	279
	7	701

(f)	L	mL
		⑨
		⓪⑩⑱
	540	108
−	420	089
	120	019

(g)	L	mL
	②⑫	④⑰○
	32	570
−	25	290
	7	280

(h)	L	mL
	⑧⑱	③⑬○
	498	433
−	179	382
	319	051

Q.2. Arrange in columns and subtract :

(a) 12 L 124 mL from 31 L 65 mL

(b) 46 L 24 mL from 83 L 70 mL

(c) 46 L 520 mL from 96 L 275 mL

(d) 22 L 187 mL from 29 L 3 mL

(e) 92 L 142 mL from 230 L 15 mL

Sol.

(a)	L	mL
	⑩	
	②⓪	⑩
	31	065
−	12	124
	18	941

(b)	L	mL
	⑦⑬	⑥⑩
	83	070
−	46	024
	37	046

(c)	L	mL
	⑮	
	⑧⑤	⑫
	96	275
−	46	520
	49	755

(d)	L	mL
		⑨⑨
	⑧	⑩⑩⑬
	29	003
−	22	187
	6	816

(e)	L	mL
	○⑫⑨	⑨○○
	①②⑩	⑩⑪○
	230	015
−	92	142
	137	873

Exercise 13.4

Q.1. A bucket holds 8 l 425 ml of water. If 2 L 786 mL of water is added to it to make the bucket full, what is the total capacity of the bucket?

Sol.

	L	mL
	①	①①○
Water in bucket =	8	425
Water added =	+ 2	786
Capacity of bucket =	11	211

Q.2. On Rahul's wedding function his mother bought 19 L 750 mL of milk from one source and 25 L 525 mL of milk from other sources. Find the total milk bought by mother.

Sol.

	L	mL
	①①	○○○
Milk bought from one source =	1 9	7 5 0
Milk bought from other source =	+ 2 5	5 2 5
Total milk =	4 5	2 7 5

Q.3. Raj purchased 28 L 600 mL orange juice and 38 L 750 mL mango juice. Find the total quantity of juice purchased by Raj.

Sol.

	L	mL
	①①	○○○
Orange juice =	2 8	6 0 0
Mango juice =	+ 3 8	7 5 0
Total juice =	6 7	3 5 0

Q.4. Komal bought 38 L 750 mL mustard oil and 48 L 850 mL coconut oil. Find the total quantity of oil bought by Komal.

Sol.

	L	mL
	①①	①○○
Mustard oil =	3 8	7 5 0
Coconut oil =	+ 4 8	8 5 0
Total oil =	8 7	6 0 0

Q.5. The capacity of fuel tank in a bike is 16 L 200 mL. It contains 7 L 525 mL of petrol. How much more petrol it can take in?

Sol.

	L	mL
	○⑮	⑪⑨
	⓪⑤	①⑩⑩
Capacity of fuel tank =	1 6	2 0 0
Petrol in the tank =	– 7	5 2 5
Remaining capacity of tank =	8	6 7 5

Q.6. An oil container has 86 L 400 mL oil. 68 L 760 mL oil was transferred to another container. How much oil remains in the container now?

Sol.

	L	mL
	⑮	⑬
	⑦⑤	③⑩
Oil in container =	8 6	4 0 0
Oil transferred =	– 6 8	7 6 0
Remaining oil =	1 7	6 4 0

Q.7. A juice-seller has 95 L 600 mL of mango juice. He sold 38 L 850 mL of juice. Find out the quantity of juice left.

Sol.

	L	mL
	①⑭	
	⑧④	⑤⑩
Mango juice seller has =	9 5	6 0 0
Juice sold =	– 3 8	8 5 0
Juice lefted =	5 6	7 5 0

Q.8. A tin contained 18 L 320 mL of oil. Out of it, 879 mL is wasted due to leak in the tin. How much oil is left in the tin?

Sol.

	L	mL
		⑫⑪
	⑦	②①⑩
Oil in tin =	1 8	3 2 0
Oil wasted =	–	8 7 9
Oil legted =	1 7	4 4 1

Q.9. A shopkeeper has 80 litres of refined oil. He sold 22 l 80 ml to one customer, 21 L 850 mL to another customer and 13 L 350 mL to a third customer. How much oil is left with him?

Sol.

	L	mL
	○①	①○○
Oil sold to one customer =	2 2	0 8 0
Oil sold to another customer =	2 1	8 5 0
Oil sold to third customer =	+ 1 3	3 5 0
Total oil sold =	5 7	2 8 1

	L	mL
	○⑨	⑨○○
	⑦⑩	⑩⑩○
Oil shopkeeper has =	8 0	0 0 0
Oil sold =	– 5 7	2 8 0
Oil lefted =	2 2	7 2 0

Q.10. Babli bought 13 L 850 mL of milk. Out of it, 6 L 225 mL was used in preparing tea for a function, 4 L 80 mL was used for preparing cheese and 899 mL was taken by her child. She used the remaining quantity of milk for preparing curd. How much milk was used for curd?

Sol.

	L	mL
	①	②①○
Milk used in tea =	6	2 2 5
Milk used in cheese =	4	0 8 0
Milk used for child =	+	8 9 9
Total used for child =	1 1	2 0 4

	L	mL
	○○	○④⑩
Total milk =	1 3	8 5 0
Milk used =	– 1 1	2 0 4
Milk lefted =	2	6 4 6

Must Practice Exercise 13

Q.1. Fill the appropriate unit (L or mL).

(a) A glass of milk

(b) Diesal filled in a car

(c) A sachet of ketchup

(d) Medicine in a syringe

(e) Nail polish in a bottle

(f) A bucket full of water

(g) Water in a storage tank

Sol. (a) mL (b) L (c) mL (d) mL
(e) mL (f) L (g) L

Q.2. Add :

Sol. (a)

	L	mL
	○①	①○○
	2 3	2 5 0
+	3 4	7 5 8
	5 8	0 0 8

(b)

	L	mL
	①○	○①○
	2 8	2 1 9
+	4 9	6 0 7
	7 7	8 2 6

(c)

	L	mL
	①○	①①○
	3 9	1 9 8
+	4 8	6 5 9
	8 7	8 5 7

(d)

	L	mL
	①①	①①○
	4 8	5 8 4
+	3 9	9 5 6
	8 8	5 4 0

(e)

	L	mL
	○	①①○
	7	1 5 8
	8	3 3 3
+	9	2 8 8
	2 4	7 7 9

(f)

	L	mL
	①	○①○
	2	2 5 0
	6	6 1 8
+	4	4 0 8
	1 3	2 7 6

Q.3. Arrange in columns and add :

(a) 26 L, 12 L 108 mL, 997 mL

(b) 19 L 85 mL, 25 L 287 mL

(c) 48 L 158 mL, 27 L 107 mL

(d) 39 L 325 mL, 22 L 129 mL, 71 L 675 mL

Sol. (a)

	L	mL
	○①	①①○
	2 6	
	1 2	1 0 8
+		9 9 7
	3 9	1 0 5

(b)

	L	mL
	①○	①①○
	1 9	0 8 5
+	2 5	2 8 7
	4 4	3 7 2

(c)

	L	mL
	①○	○①○
	4 8	1 5 8
+	2 7	1 0 7
	7 5	2 6 5

(d)

	L	mL
	①①	①①○
	3 9	3 2 5
	2 2	1 2 9
+	7 1	6 7 5
	1 3 3	1 2 9

Q.4. Subtract :

Sol. (a)

	L	mL
	⑬	⑭
	③③	④⑩
	4 4	5 0 8
–	2 8	8 8 8
	1 5	6 2 0

(b)

	L	mL
	⑩	⑬⑫
	②⓪	③②⑯
	3 1	4 3 6
–	1 9	8 3 8
	1 1	5 9 8

(c)

	L	mL
	⑮⑨	⑮⑪
	③⑤⑩	⑤①⑱
	4 6 0	6 2 8
–	3 7 8	7 8 9
	8 1	8 3 9

(d)

	L	mL
	⑩⑩	⑰
	②⓪⓪	⑦⑩
	3 1 1	8 0 7
–	2 8 3	9 2 5
	2 7	8 8 2

(e)

	L	mL
	⑮	⑨
	⓪⑤⑮	④⑩⑩
	1 6 5	5 0 0
–	8 6	3 4 8
	7 9	1 5 2

(f)

	L	mL
	⑪⑬	
	②①③	⑫
	3 2 4	2 3 5
–	1 4 9	5 1 0
	1 7 4	7 2 5

(g)

	L	mL
	⑫	⑨
	③②⑮	①⑩⑩
	4 3 5	2 0 0
–	9 8	1 6 8
	3 3 7	0 3 2

(h)

	L	mL
	⑭⑨	⑰
	②④⑩	⑦⑩
	3 5 0	8 0 7
–	8 9	9 2 5
	2 6 0	8 8 2

Q.5. Arrange in columns and subtract :

(a) 13 L 348 mL from 25 L 136 mL

(b) 38 L 88 mL from 64 L 202 mL

(c) 44 L 499 mL from 59 L 515 mL

(d) 60 L 650 mL from 84 L 450 mL

Sol. (a)

L		mL		
		⑩	⑫	
	④	⓪	②	⑯
2	5	1	3	6
– 1	3	3	4	8
1	1	7	8	8

(b)

L		mL		
			⑨	
⑤	⑭	①	⑩	⑫
6	4	2	0	2
– 3	8	0	8	8
2	6	1	1	4

(c)

L		mL		
			⑩	
		④	⓪	⑮
5	9	5	1	5
– 4	4	4	9	9
1	5	0	1	6

(d)

L		mL		
◯	③	⑭	◯	◯
8	4	4	5	0
– 6	0	6	5	0
2	3	8	0	0

Q.6. Three container's contain 29 L 725 mL, 46 L 18 mL and 509 mL of oil. Find the total quantity of oil.

Sol.

	L		mL		
	①	①	◯	②	◯
Oil in Ist container =	2	9	7	2	5
Oil in IInd container =	4	6	0	1	8
Oil in IIIrd container =	+ 0	0	5	0	9
Total oil =	7	6	2	5	2

Q.7. There was 25 L 520 mL kerosene oil in a container. Vikas used 13 L 570 mL for burning wood. How much oil is left?

Sol.

	L		mL		
			⑭		
		④	④	⑫	
Kerosene in container =	2	5	5	2	0
Kerosene used =	– 1	3	5	7	0
Kerosene lefted =	1	1	9	5	0

Q.8. A container contains two type of drinks : drink-1 and drink-2. If container contains 850 mL of drink-1 and 2 L 5 mL of drink-2. What is the total capacity of 7 such containers?

Sol.

	L	mL		
Drink-1 in container =	0	8	5	0
Drink-2 in container =	+ 2	0	0	5
Capacity of container =	2	8	5	5

Capacity of such 7 containers

= 2.855 L × 7

= 19.985 L

= 19 L 985 mL

Q.9. Before starting for a journey, the tank of a car was filled with 28 L of diesel. At the end of the journey, 3 L 852 mL of diesal was left in the fuel tank. How much diesel was used in the journey?

Sol.

	L		mL		
	◯	◯	⑨	⑨	◯
	◯	⑦	⑩	⑩	⑩
Capacity of tank =	2	8	0	0	0
Diesal lefted =	–	3	8	5	2
Diesal consumed =	2	4	1	4	8

Q.10. Naresh has two cows which give him 13426 mL and 16740 mL milk respectively. He sells 18520 mL milk to his customers. How much milk is left with him for his own use?

Sol.

	①	①				
Milk of cow-1 =	1	3	4	2	6	mL
Milk of cow-2 =	+ 1	6	7	4	0	mL
		⑨				
	②	⑩	⑪			
Total milk =	3	0	1	6	6	mL
Milk sold =	– 1	8	5	2	0	mL
Milk lefted =	1	1	6	4	6	mL

$11646 \text{ mL} = \frac{11646}{1000} \text{ L} = 11.646 \text{ L}$

$= 11 \text{ L } 646 \text{ mL}$

Click Type Questions

Tick (✔) the correct answer :

Q.1. 3 L 350 mL – 760 mL = ?

(a) 2 L 500 mL (b) 2 L 590 mL

(c) 2 L 650 mL (d) 2 L 700 mL

Sol. (b) 3 L 350 mL

$= 3000\text{ mL} + 350\text{ mL} - 760\text{ mL}$

$= 3350\text{ mL} - 760\text{ mL} = 2590\text{ mL}$

$= 2\text{ L } 590\text{ mL}$

Q.2. + + = 960 mL then =

(a) 200 mL (b) 250 mL

(c) 300 mL (d) 320 mL

Sol. (d) 3 = 960 ⇒ $= \frac{960}{3} = 320$ mL

Q.3. 8 L 660 mL + 28 L 750 mL = ?

(a) 34 L 400 mL (b) 35 L 300 mL

(c) 36 L 400 mL (d) 37 L 410 mL

Sol. (d)

$$\begin{array}{rrcrrr} & \multicolumn{2}{c}{\text{L}} & & \multicolumn{2}{c}{\text{mL}} \\ & \textcircled{1} & \textcircled{1} & \textcircled{1} & \bigcirc & \bigcirc \\ & & 8 & 6 & 6 & 0 \\ + & 2 & 8 & 7 & 5 & 0 \\ \hline & 3 & 7 & 4 & 1 & 0 \\ \hline \end{array}$$

Q.4. 60 L 250 mL – 28 L 500 mL = ?

(a) 30 L 650 mL (b) 32 L 750 mL

(c) 31 L 750 mL (d) 32 L 250 mL

Sol. (c)

$$\begin{array}{rrrrrr} & \bigcirc & \textcircled{9} & \bigcirc & \bigcirc & \bigcirc \\ & \textcircled{5} & \textcircled{10} & \textcircled{12} & \bigcirc & \bigcirc \\ & 6 & 0 & 2 & 5 & 0 \\ - & 2 & 8 & 5 & 0 & 0 \\ \hline & 3 & 1 & 7 & 5 & 0 \\ \hline \end{array}$$

Q.5. A drum has 24 L 800 mL of oil in it. If 17 L 900 mL of oil is taken out of it, how much is left?

(a) 5 L 700 mL (b) 8 L 800 mL

(c) 6 L 900 mL (d) 7 L 100 mL

Sol. (c)

$$\begin{array}{rrrrrrr} & & \multicolumn{2}{c}{\text{L}} & & \multicolumn{2}{c}{\text{mL}} \\ & & & \textcircled{13} & & & \\ & & \textcircled{1} & \textcircled{3} & \textcircled{18} & \bigcirc & \bigcirc \\ \text{Oil in drum} = & & 2 & 4 & 8 & 0 & 0 \\ \text{Oil used} = & - & 1 & 7 & 9 & 0 & 0 \\ \hline \text{Oil lefted} = & & & 6 & 9 & 0 & 0 \\ \hline \end{array}$$

Q.6. If 15 jugs can hold 81 litres of water, then 5 jugs can hold _______ litres.

(a) 20 (b) 24

(c) 25 (d) 27

Sol. (d) 15 jugs capacity = 81 L

1 jug capacity $= \frac{81}{15}$ L

5 jugs capacity $= \frac{81}{15} \times 5\text{ L} = \frac{81}{3}\text{ L} = 27\text{ L}$

Q.7. The capacity of a tablespoon is measured in :

(a) millilitres (b) litres

(c) gallons (d) grams

Sol. (a) millilitres

Q.8. Meena purchased 8 L 250 mL of milk. She used 5 L 750 mL during the day. Quantity of milk left with her is _____.

(a) 1250 mL (b) 1400 mL

(c) 2500 mL (d) 1550 mL

Sol.

$$\begin{array}{rrrrrr} & & \text{L} & & \multicolumn{2}{c}{\text{mL}} \\ & & \textcircled{7} & \textcircled{12} & \bigcirc & \bigcirc \\ \text{Milk purchased} = & & 8 & 2 & 5 & 0 \\ \text{Milk used} = & - & 5 & 7 & 5 & 0 \\ \hline \text{Milk lefted} = & & 2 & 5 & 0 & 0 \\ \hline \end{array}$$

Q.9. Arrange the following in the order of decreasing capacities.

1. Glass 2. Jug 3. Cup 4. Spoon

(a) 2, 1, 3, 4 (b) 1, 4, 3, 2

(c) 4, 3, 2, 1 (d) 4, 2, 1, 3

Sol. (a) 2, 1, 3, 4

Q.10. 6 glasses of milk is equal to 1 litre. If a bucket can hold 4 litres of water, then number of glasses of water required to fill it is :

(a) 9 (b) 18 (c) 24 (d) 26

Sol. (c) 1 L water needs to fill = 6 glass

4 L water needs to fill = 6 × 4

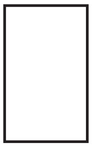
= 24 glasses

Chapter 14 Symmetry and Patterns

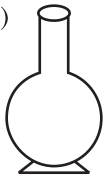
Exercise 14.1

Q.1. Identify the figures which can be made symmetric if we draw a line over it :

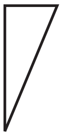
(a)



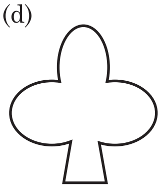
(b)



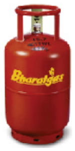
(c)



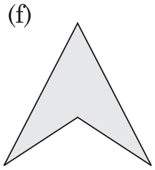
(d)



(e)



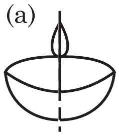
(f)



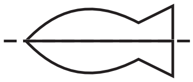
Sol. Symmetric figures : (a), (b), (d), (e)

Q.2. Complete each of the following pictures by drawing exactly same pattern on the other side of the line.

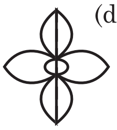
Sol. (a)



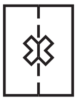
(b)



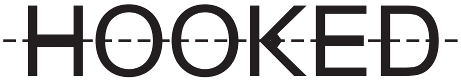
(c)



(d)

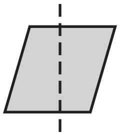


(e)

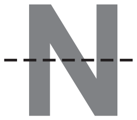


Q.3. Look at the pictures given below. Does the dotted line divide each picture into two similar halves?

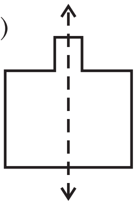
(a)



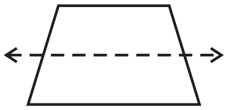
(b)



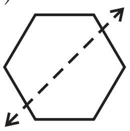
(c)



(d)



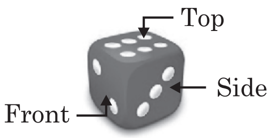
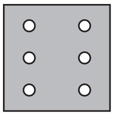
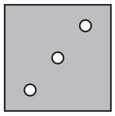
(e)

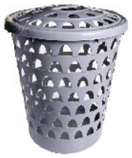
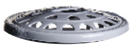
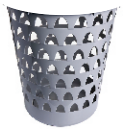


Sol. (a) No (b) No (c) Yes (d) No (e) No

Q.4. Draw the front view, side view and top view of the given objects.

Sol.

		
Cube	Top View	Side View

		
Basket	Top View	Side View

Q.5. Complete the following patterns :

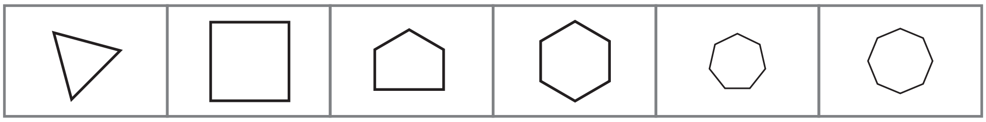
Sol. (a) 3, 6, 9, 12, 15, 18, 21

(b) 12, 14, 16, 18, 20, 22, 24

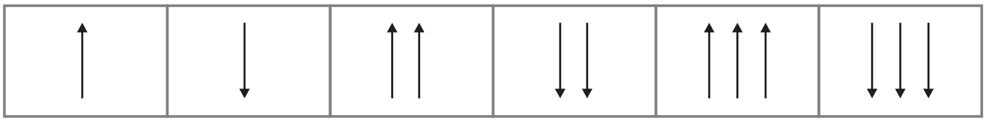
(c) 38, 47, 56, 65, 74, 83, 92

(d) 360, 350, 340, 330, 320, 310, 300

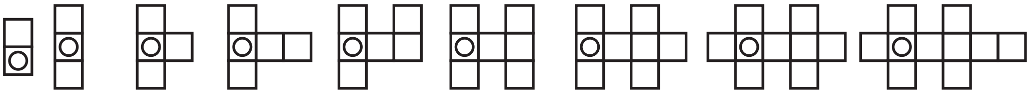
(e)



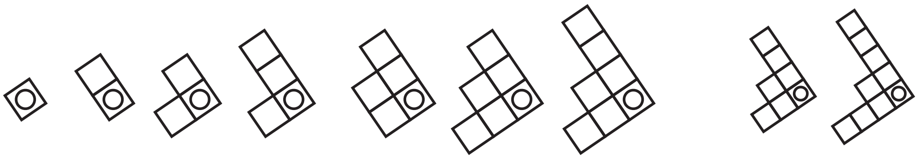
(f)



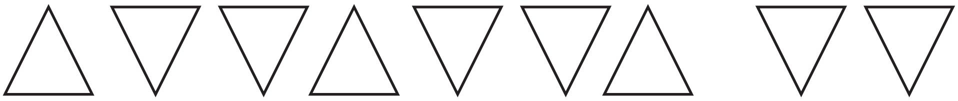
(g)



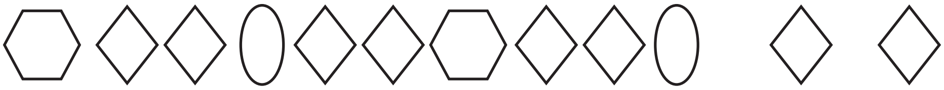
(h)



(i)



(j)

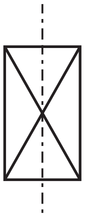


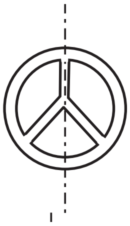
(k) 1233123312 3 3

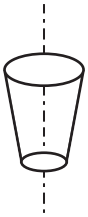
Must Practice Exercise 14

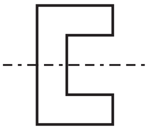
Q.1. Draw the symmetric line in the following figures :

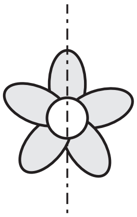
Sol.

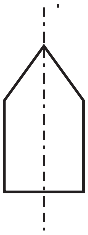
(a)


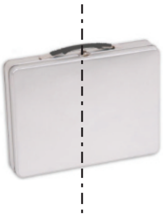
(b)


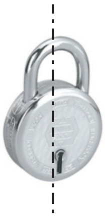
(c)


(d)


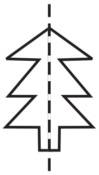
(e)


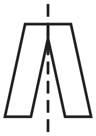
(f)


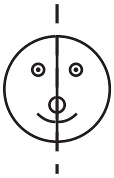
(g)


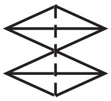
(h)


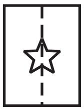
Q.2. Complete each of the following pictures by drawing exactly same pattern on the other side of the line.

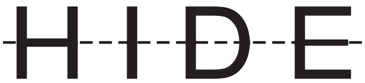
Sol. (a)


(b)


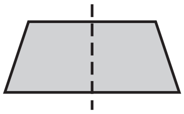
(c)


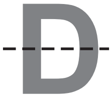
(d)


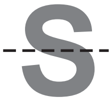
(e)


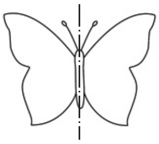
(f)


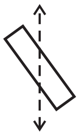
Q.3. Look at the pictures given below. Does the dotted line divide each picture into two similar halves?

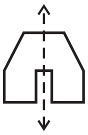
(a)


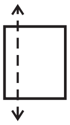
(b)


(c)


(d)


(e)


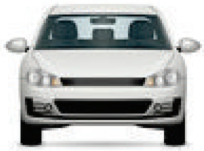
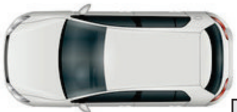
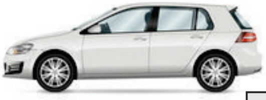
(f)


(g)


Sol. (a) No (b) Yes (c) No (d) Yes (e) No (f) Yes (g) No

Q.4. Write the type of view in the box.

Sol.

 Front	 Top	 Side
Car	Top View	Side View

Q.5. Write the numbers that come next .

Sol. (a) 1, 3, 5, 7, 9, 11, 13, 15

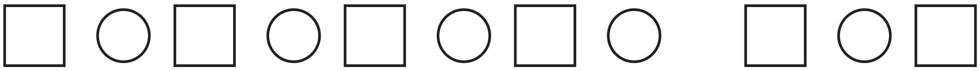
(b) 2, 4, 6, 8, 10, 12, 14, 16

(c) 11, 22, 33, 44, 55, 66, 77

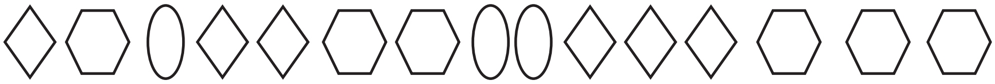
(d) 24, 34, 44, 54, 64, 74, 84

Q.6. Look at the pattern in each row. Fill in the blanks by drawing the shapes that continue the pattern :

Sol. (a)



(b)



(c) 12332112332 112

Q.7. Examine the number pattern below.

10, 18, 26, 34, 42 ....

Write the next three numbers in the pattern.

How do you know which numbers come next?

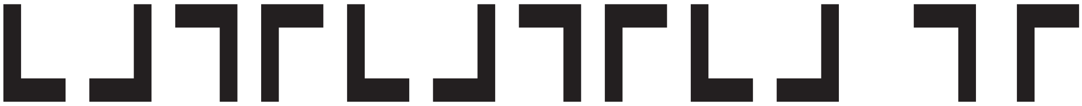
Sol. 50, 58, 66

Next number = Previous number + 8

Q.8. Continue the patterns and answer the questions.

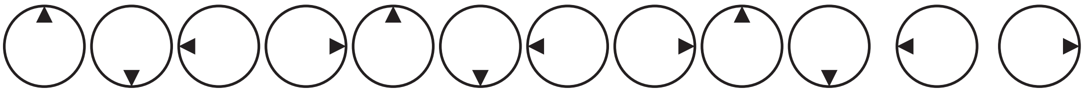
What will the 13th shape in the pattern be?

Sol.



Q.9. Complete the pattern given below :

Sol.



Q.10. Examine the number pattern below :

890, 780, 670, 560, 450 ....

Write the next three numbers in the pattern.

How do you know which numbers come next?

Sol. 340, 230, 120

Next number = Previous number – 110

Fun-Zone Exercise

Chapter 1

Hindu-Arabic Numeral	Roman Numeral	Number of Matchsticks used
11	XI	3
12	XII	4
13	XIII	5
14	XIV	5
15	XV	4

Chapter 2

88	+	12	+	49	=	149
+		+		+		+
93	+	88	+	18	=	199
+		+		+		+
27	+	4	+	46	=	77
=	=	=	=	=		=
208	+	104	+	113	=	425

Chapter 3

$4 \boxed{\times} 2 \boxed{\div} 1 = 8$ $\quad$ $3 \boxed{\times} 4 \boxed{\div} 2 \boxed{\div} 6 = 1$

$7 \boxed{\times} 4 \boxed{\div} 2 = 14$ $\quad$ $3 \boxed{\times} 4 \boxed{\times} 2 \boxed{\div} 6 = 4$

$10 \boxed{\div} 5 \boxed{\times} 3 = 6$ $\quad$ $8 \boxed{\div} 2 \boxed{\times} 3 \boxed{\div} 4 = 3$

$12 \boxed{\div} 3 \boxed{\times} 4 = 16$ $\quad$ $15 \boxed{\div} 3 \boxed{\times} 2 \boxed{\times} 3 = 30$

Chapter 4

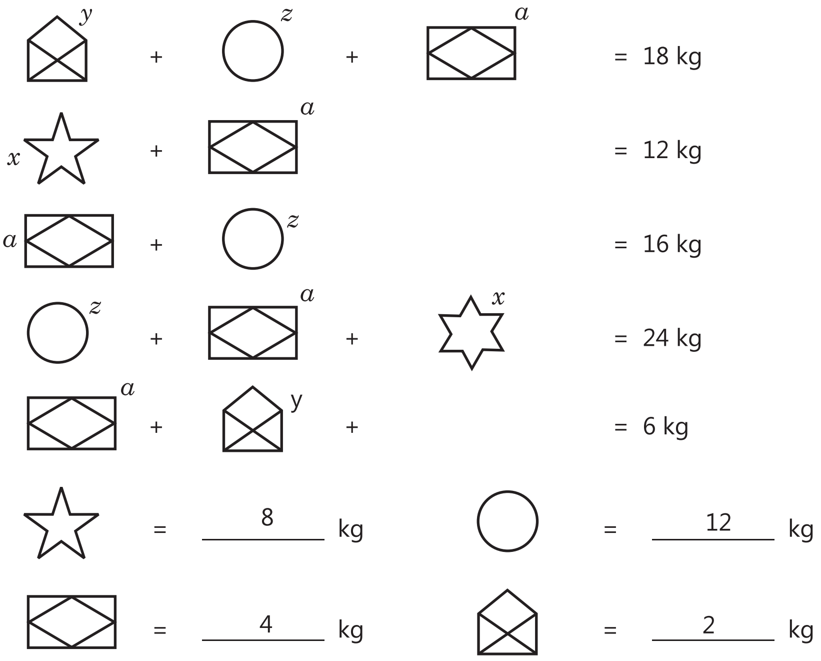
(a) $\underset{\cdot}{5}3 = 43$ (a) $3\dot{1} = 32$ (a) $4\dot{1} = 42$ (a) $\underset{\cdot}{3}2 = 22$

(a) $\underset{\cdot}{4}3 = 33$ (a) $\dot{4}2 = 52$ (a) $5\dot{2} = 53$ (a) $\dot{5}1 = 61$

Chapter 5

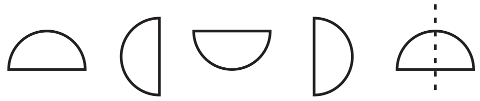
S.No.	Items	Cost (₹)	Qty	Amt (in ₹)
1.	Cold drinks	₹ 25	3	75
2.	Ice-cream	₹ 35	2	70
3.	Mango bite	₹ 15	3	45
4.	Butter scotch	₹ 45	4	180
5.	Straw berry	₹ 26	5	130
6.	Kinder joy	₹ 39	2	78
7.	Chips	₹ 15	6	90
8.	Buiscuits	₹ 35	3	105
		Total		**773**

Chapter 12

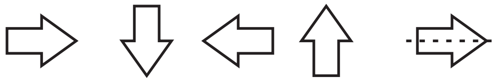

y + z + a = 18 kg
x + a = 12 kg
a + z = 16 kg
z + a + x = 24 kg
a + y + = 6 kg
= 8 kg
= 12 kg
= 4 kg
= 2 kg

Chapter 14

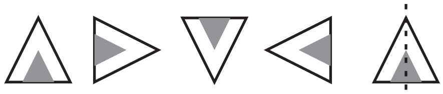
1.



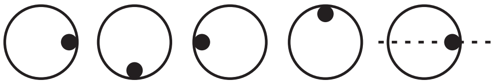
2.



3.



4.



Class 4

Chapter-1 Roman Numerals

Exercise 1.1

Q.1. Write the following numerals as Roman numerals :

(a) 4 (b) 17 (c) 29 (d) 36
(e) 25 (f) 19 (g) 12 (h) 15

Sol. (a) 4 = IV (b) 17 = XVII
(c) 29 = XXIX (d) 36 = XXXVI
(e) 25 = XXV (f) 19 = XIX
(g) 12 = XII (h) 15 = XV

Q.2. Write the corresponding Indian-Arabic numerals for the following :

(a) XXI (b) XXXVII
(c) XIX (d) XXIII

Sol. (a) XXI = 21 (b) XXXVII = 37
(c) XIX = 19 (d) XXIII = 23

Q.3. Put symbols >, < and = in appropriate boxes :

(a) XV ☐ XIV (b) XXX ☐ XXVIII
(c) XXXIX ☐ XXXVII

Sol. (a) 15 > 14 (b) 30 > 28 (c) 39 > 37

Q.4. Write in ascending order :

XXX	XX	X	L	C	XL

Sol. X < XX < XXX < XL < L < C

Q.5. Write in descending order :

XII	XIII	XXIX	XIX	IX	XI

Sol. XXIX > XIX > XIII > XII > XI > IX

Q.6. Write the answer in Roman numerals :

(a) 8 × 4 (b) 81 ÷ 9 (c) 12 + 12 (d) 59 – 19

Sol. (a) 8 × 4 = 32 = XXXII

(b) 81 ÷ 9 ⇒ 9)81(9 ⇒ 81 ÷ 9 = 9 = IX
81
×

(c) 12 + 12 = 24 = XXIV
(d) 59 – 19 = 40 = 50 – 10 = L – X = XL

Q.7. Express the sum in Hindu-Arabic numerals :

(a) V + IV (b) XXX + IV
(c) X + I (d) XX × X

Sol. (a) V + IV = 5 + 4 = 9
(b) XXX + IV = 30 + 4 = 34
(c) X + I = 10 + 1 = 11
(d) XX × X = 20 × 10 = 200

Q.8. Express the difference in Roman numerals:

(a) 23 – 16 (b) 28 – 14
(c) 16 – 7 (d) 9 – 5

Sol. (a) 23 – 16 = 7 = VII
(b) 28 – 14 = 14 = XIV
(c) 16 – 7 = 9 = IX
(d) 9 –5 = 4 = IV

Must Practice Exercise-1

Q.1. Complete the following table :

Hindu-Arabic Numeral	40		68		97		88
Roman Numeral		XLIX		XC		LXXIX	

Sol.

40	49	68	90	97	79	88
XL	XLIX	LXVIII	XC	XCVII	LXXIX	LXXXVIII

Q.2. Fill in the blanks :

(a) There are ____________ symbols in Roman numerals.
(b) Symbols ____________ , ____________ and ____________ can be both added and subtracted.
(c) Symbols _________ and ___________ are neither repeated nor added or subtracted.

Sol. (a) Seven (b) I, V, X (c) V, L D

Q.3. Write the answers in Roman numerals :

(a) 6 × 7 (b) 8 × 8 (c) 40 + 50 (d) 960 ÷ 10

Sol. (a) 6 × 7 = 42 = 40 + 2 = (50 – 10) + 2 = L – X + 11 = XLII
(b) 8 × 8 = 64 = 60 + 4 = (50 + 10) + 4 = L + X + IV = LXIV
(c) 40 + 50 = 90 = 100 – 10 = C – X = XC
(d) 960 ÷ 10 = 96 = 100 – 4 = C – X + VI = XCVI

Q.4. Perform the indicated operation and write the answer in Roman numerals.

(a) LXXX ÷ VIII (b) VI × XV

(c) XXVIII + XXVII

Sol. (a) LXXX ÷ VIII = (L + X + X + X) ÷ (V + I + I + I) = (50 + 10 + 10 + 10) ÷ (5 + 1 + 1 + 1) = 80 ÷ 8 = 10 = X

(c) VI × XV = 6 × 15 = 90 = 100 – 10 = C – X = XC

(c) XXVIII + XXVII = 28 + 27 = 55 = 50 + 5 = L + V = LV

Q.5. Arrange in ascending order :

(a) IX, IV, X, II, XL

(b) X, XXX, XX, XII, XLV

Sol. (a) II < IV < IX < X < XL

(b) X < XII < XX < XXX < XLV

Q.6. Arrange in descending order :

(a) XXII, XXI, V, XXXII, I

(b) IX, VII, V, VI, II

Sol. (a) XXXII > XXII > XXI > V > I

(b) IX > VII > VI > V > II

Click Type Questions 1

Tick (✔) the correct answer :

Q.1. The Roman numerals from which I can be subtracted are V and ____ .

(a) I (b) X (c) L (d) C

Sol. (b) I can be subtracted from X.

Q.2. Which of the following is meaningless?

(a) XIV (b) XIX

(c) IXVI (d) XXVI

Sol. (c) No meaning of IXVI.

Q.3. 99 is the same as :

(a) IC (b) IXIX

(c) XCIX (d) CIX

Sol. (c) 99 = 100 – 10 + 9 = C – X + IX = XCIX

Q.4. In the Roman system, the symbol for zero is :

(a) 0 (b) X – X

(c) does not exist (d) none of these

Sol. (c) No Roman number is for zero.

Q.5. 22 is written in Roman numerals as :

(a) XXII (b) XVVII

(c) VVVVII (d) none of these

Sol. (a) 22 = 10 + 10 + 2 = X + X + II = XXII

Q.6. The Roman numeral for 89 is :

(a) IXC (b) LXXXIX

(c) XXCIX (d) LXXXVIV

Sol. (b) 89 = 50 + 10 + 10 + 10 + 9 = LXXXIX

Q.7. XIX + XXX = _______

(a) XLIX (b) L

(c) XXXIX (d) LIX

Sol. (a) XIX + XXX = 19 + 30 = 49 = 50 – 1 = 50 – 10 + 9 = L – X + IX = XLIX

Q.8. IX + XV + XX = _______

(a) 35 (b) 40 (c) 44 (d) 45

Sol. (c) IX + XV + XX = 9 + 15 + 20 = 44

Chapter-2 Number System

Exercise-2.1

Q.1. Arrange the following numerals in the Indian place value chart and then rewrite them with commas at the right places :

(a) 5020 (b) 80003

(c) 200105 (d) 2003500

Sol. (a) 5,020 (b) 80,003

(c) 2,00,105 (d) 20,03,500

Q.2. Write the following numerals in words in the Indian system :

(a) 53106 (b) 59019

(c) 204071 (d) 3033030

Sol. (a) Fifty three thousand one hundred six

(b) Fifty nine thousand nineteen

(c) Two lakh four thousand seventy-one

(d) Thirty lakh thirty three thousand thirty

Q.3. Express the following numbers written in the Indian system in figures, placing the commas at the right places :

(a) Fifteen thousand six hundred eighty-two

(b) Sixty thousand fifty-nine

(c) Nineteen thousand one

(d) Two lakh fifty-six thousand two hundred fourteen

Sol. (a) 15,682 (b) 60,059

(c) 19,001 (d) 2,56,214

Q.4. Rewrite the following numerals with proper commas, using International place value chart :

(a) 364619 (b) 1679102

(c) 5100309 (d) 12317007

Sol. (a) 364,619 (b) 1,679,102

(c) 5,100,309 (d) 12,317,007

Q.5. Write the number names of the following in the International system :

(a) 360520 (b) 1400317

(c) 7010008 (d) 10300103

Sol. (a) Three hundred sixty thousand five hundred twenty

(b) One million four hundred thousand three hundred seventeen

(c) Seven million ten thousand eight

(d) Ten million three hundred thousand one hundred three

Q.6. Using the International place value chart, write the numeral for each of the following numbers, placing the commas at the right places :

(a) Three hundred five thousand six hundred eighty-two

(b) Five hundred thousand, ninety-nine

(c) Two million three hundred ten thousand one hundred eight

(d) Ten million nine hundred nine thousand nine hundred ninety-nine

Sol. (a) 305,682 (b) 500,091

(c) 2,310,108 (d) 10,909,991

Exercise 2.2

Q.1. Find the place value of the underlined digit in each of the following numerals :

(a) $2\underline{3}076$ (b) $2359\underline{6}1$

(c) $\underline{8}37209$ (d) $\underline{5}247296$

(e) $\underline{9}75600$

Sol. (a) 3000 (b) 60

(c) 800000 (d) 5000000

(e) 900000

Q.2. Find the place value of each of the digits in the following numerals :

(a) 213504 (b) 3860429

Sol.

Numbers	Place Values
(a) 213504	200000, 10000, 3000, 500, 4
(b) 3860429	3000000, 800000, 60000, 400, 20, 9

Q.3. Find the difference between the place values of 8 in 4896500 and 1580776.

Sol. 800000 – 80000 = 7,20000

Q.4. Write each of the following numbers in expanded form :

(a) 123527 (b) 429010

(c) 1607503 (d) 8060719

Sol. (a) 100000 + 20000 + 3000 + 500 + 20 + 7

(b) 400000 + 20000 + 9000 + 10

(c) 1000000 + 600000 + 7000 + 500 + 3

(d) 8000000 + 60000 + 700 + 10 + 9

Q.5. Write each of the following in short form :

(a) 30000 + 700 + 80 + 4

(b) 90000 + 1

(c) 200000 + 4000 + 100 + 3

(d) 500000 + 3000 + 7

Sol. (a) 30,784 (b) 90,001

(c) 2,04,103 (d) 5,03,007

Q.6. Write the successor of each of the following numbers :

(a) 29099 (b) 34999

(c) 2867009 (d) 3559999

(e) 9999299

Sol. (a) 29100 (b) 35000

(c) 2867010 (d) 3560000

(e) 9999300

Q.7. Write the predecessor of each of the following numbers :

(a) 69100 (b) 120000

(c) 2860100 (d) 6631700

(e) 6810000

Sol. (a) 69099 (b) 119999

(c) 2860099 (d) 6631699

(e) 6809999

Q.8. Observe the pattern and write the next four numbers :

(a) 10501, 10511, 10521

(b) 23709, 23699, 23689

Sol. (a) 10531, 10541, 10551

(b) 23679, 23669, 23659

Exercise 2.3

Q.1. Compare the given pairs of numbers and write the appropriate symbol >, = or < in the place holder :

(a) 92009□92090 (b) 109050□110005

(c) 120101□121001 (d) 1635037□1635073

Sol. (a) < (b) < (c) < (d) <

Q.2. Arrange in ascending order :

(a) 10039; 213500; 16940; 160940; 27960

(b) 301090; 29678; 303000, 269090; 31107

Sol. (a) 10039 < 16940 < 27960 < 160940 < 213500

(b) 29678 < 31107 < 269090 < 301090 < 303000

Q.3. Arrange in descending order :

(a) 50550; 55055; 55505; 50055; 55005

(b) 29500; 92100; 29190; 91080; 90560

Sol. (a) 55505 > 55055 > 55005 > 50550 > 50055

(b) 92100 > 91080 > 90560 > 29500 > 29190

Q.4. Encircle the largest number among the given numbers :

(a) 97360; 100420; 1050000; 150000; 101000
(b) 537999; 340090; 401970; 402000; 1100110

Sol. (a) 1050000 (b) 1100110

Q.5. Write the smallest 4-digit number using each of the following digits only once :
(a) 0, 2, 3 and 8 (b) 4, 5, 7 and 9

Sol. (a) 2038 (b) 4579

Q.6. (a) Write the smallest 3-digit number using digits 2 and 7, repeating 7 two times.
(b) Write the smallest 4-digit number using digits 9, 0 and 7, repeating 9 two times.

Sol. (a) 277 (b) 7099

Q.7. Write the greatest 3-digit number using each of the following digits only once :
(a) 3, 4 and 9 (b) 8, 0 and 5

Sol. (a) 943 (b) 850

Q.8. (a) Write the greatest 3-digit number using digits 8 and 4, repeating 4 two times.
(b) Write the greatest 4-digit number using digits 0, 2 and 6, repeating 6 two times.

Sol. (a) 844 (b) 6620

Must Practice Exercise 2

Q.1. Mark the periods of the following numbers in the Indian and International place value systems :
(a) 956943 (b) 888542 (c) 4044040

Sol. (a) 9,56,943; 956,943
(b) 8,88,542; 888,542
(c) 40,44,040; 4,044,040

Q.2. Observe the pattern and write next two terms :
(a) 68565, 68575, 68585
(b) 59584, 59684, 59784
(c) 77097, 78097, 79097
(d) 165492, 175492, 185492

Sol. (a) 68595, 68605 (b) 59884, 59984
(c) 80097, 81097 (d) 195492, 205492

Q.3. Observe the periods and write the number names :
(a) 8,84,080 (b) 7,36,985
(c) 6,050,005 (d) 92,04,044

Sol. (a) Eight lakh eighty-four thousand eighty
(b) Seven lakh thirty-six thousand nine hundred eighty-five
(c) Six million fifty thousand five
(d) Ninety two lakh four thousand forty-four.

Q.4. Find the difference between the place values of 1 and 3 in 9163426.

Sol. 100000 – 3000 = 97000

Q.5. Find the sum of place values of 5 and 7 in 9530703.

Sol. 500000 + 700 = 500700

Q.6. Write the place, place value and period of the underlined digits :
(a) $\underline{8}70096$ (b) $541\underline{8}9$
(c) $9\underline{1}63824$ (d) $79\underline{6}2105$

Sol. (a) 800000 (b) 80
(c) 100000 (d) 60000

Q.7. Compare and put the correct symbol >, < or = in the place holder :
(a) 9063719 ☐ 9063179
(b) 500505 ☐ 505005

Sol. (a) > (b) <

Q.8. State whether each of the following statements is true or false.
(a) In the Indian system of numeration, there are two places in each period after first period.
(b) 8000 = 80 hundreds
(c) 3 million is written as 300,000
(d) We add 1 to the largest 6-digit number to get the smallest 7-digit number

Sol. (a) True (b) True
(c) False (d) True

Q.9. Arrange the following in ascending order :
3876942; 3867429; 3824976; 3842679; 3824679

Sol. (a) 3824679 < 3824976 < 3842679 < 3867429 < 3876942

Q.10. Arrange the following in descending order:
2356841; 2365841; 2356184; 2536184; 2351684

Sol. 2536184 > 2365841 > 2356841 > 2356184 > 2351684

Q.11. Fill in the blanks :
(a) One lakh is the smallest .... digit number.

(b) The hundreds place is in the .... period.

(c) .... period has the same number of places in both the Indian and International systems of numeration.

(d) The Indian and International systems of numeration follow the same pattern up to the .... place.

Sol. (a) Three (b) First
(c) First (d) Hundreds

Q.12. Use the digits 3, 7 and 9 to build the greatest and the smallest 5-digit numbers. Each of the digits must be used and repetition of digits is allowed.

Sol. 99973, 33379

Click Type Questions 2

Tick (✓) the correct answer :

Q.1. Which is the same as 90 tens?
(a) 9 ones (b) 90 ones
(c) 9 hundreds (d) 90 hundreds

Sol. (b) $90 \text{ tens} = 90 \times 1 \text{ tens} = 90 \times 10 = 900$
$= 9 \times 100 = 9$ hundreds

Q.2. Ten lakh is a __________ digit number.
(a) 5 (b) 6 (c) 7 (d) 4

Sol. (c) Ten lakh = 10,00,000 = 7 digit

Q.3. Which number has 7 in the ten-thousands place?
(a) 143863 (b) 284713
(c) 367849 (d) 475206

Sol. (d) 475206 → Place value of 7 = 70000
$= 7 \times 1000 = 7 \times$ ten-thousands

Q.4. Which of the following numeral has commas according to the International system of numeration?
(a) 6,06,085 (b) 80,05,055
(c) 87,835 (d) 806,606

Sol. (d) 806,606 → Comma used after every 3-digits.

Q.5. The sum of the place values of two 5s in 596547 is :
(a) 505000 (b) 500500
(c) 500005 (d) 550000

Sol. (b) $500000 + 500 = 500500$

Q.6. The difference between the greatest 4-digit number and the greatest 3-digit number is :
(a) 9999 (b) 9000
(c) 9090 (d) 1000

Sol. (b) $9999 - 999 = 9000$

Q.7. Five lakh one thousand four hundred six is written as :
(a) 510406 (b) 501406
(c) 5014006 (d) 5010406

Sol. (b) 5,01,406 → Five lakh one thousand four hundred six

Q.8. 1 million – 7 thousands = ...
(a) 1007000 (b) 993000
(c) 393000 (d) 933000

Sol. (b) 1 million – 7 thousand
$= 1000000 - 7000 = 993000$

Q.9. How many zeros are there in 1 million?
(a) 4 (b) 5 (c) 6 (d) 7

Sol. (c) 1 million = 1000000 → 6-zeros

Q.10. The difference between the greatest and the smallest 4-digit number formed by the digit 0, 1, 2, 3 is :
(a) 3087 (b) 3080
(c) 2183 (d) 2187

Sol. (d) $3210 - 1023 = 2187$

Chapter-3 A Scene of Library

Exercise 3.1

Q.1. Read and fill the following :
(a) $500 + 100 = 600$ = Six hundred
(b) $600 +$ .... $= 700 =$ ....
(c) .... $+ 100 = 900$ = Nine hundred
(d) .... = Seven hundred seventy seven
(e) 1940 = ... forty

Sol. (b) 100, seven hundred
(b) 800 (d) 772
(e) one thousand nine hundred

Q.2. Numbers in words :

(a) $525 = 500 + 20 + 5 = 500 + 25$
.... + ... + ... = ... + ... = Five hundred twenty-five

(b) $638 = 600 + 30 + 8 = 600 + 38$
= .... + ... + ... = ... + ... = Six hundred thirty-eight

(c) $656 = 600 + 50 + 6 = 600 + 56$
= .... + ... + ... = ... + ... = Six hundred fifty-six

Sol. (a) five hundred + twenty + five = five hundred + twenty five
(b) six hundred + thirty + eight = six hundred + thirty eight
(c) six hundred + fifty + six = six hundred + fifty six

Q.3. Write the expanded form of the following numbers :
(a) 498 (b) 602 (c) 393

Sol. (a) 498 = 400 + 90 + 8
(b) 602 = 600 + 2
(c) 393 = 300 + 90 + 3

Q.4. Circle the numbers that have :
(a) 8 in the ones place 78, 813, 628, 84
(b) 6 in the hundreds place 106, 623, 569, 607
(c) 0 in the tens place 905, 720, 304, 60

Sol. (a) 78, 628 (b) 623, 607 (c) 905, 304

Must Practice Exercise 3

Q.1. Fill in the blanks :
(a) 556, ... 558, ..., ... 561
(b) 990, ..., ..., 993, ..., ..., ..., 997, ..., 999 ....

Sol. (a) 557, 599, 560
(b) 991, 992, 994, 995, 996, 998, 1000

Q.2. Write following in numbers :
(a) Six hundred seventy-eight
(b) Five hundred ninety-eight.
(c) Seven hundred thirty-four
(d) Eight hundred ten.

Sol. (a) 678 (b) 598 (c) 734 (d) 810

Q.3. Write the number names of the following numbers :
(a) 475 (b) 606 (c) 927
(d) 333 (e) 714 (f) 748

Sol. (a) Four hundred seventy-five
(b) Six hundred six
(c) Nine hundred twenty-seven
(d) Three hundred thirty-three
(e) Seven hundred fourteen
(f) Seven hundred forty-eight

Q.4. Fill in the blanks :
(a) 1719 = ... + ... + ... + ...
(b) One thousand one hundred five = ... + ...
(c) .... = 1000 + 999

Sol. (a) 1000 + 700 + 10 + 9
(b) 1000 + 105
(c) 1999

Q.5. Write the number just before :
(a)□702 (b) □914 (c)□800 (d)□490

Sol. (a) 701 (b) 913 (c) 799 (d) 489

Q.6. What comes in between?
(a) 368□370 (b) 269□271
(c) 891□893 (d) 597□599

Sol. (a) 369 (b) 270 (c) 892 (d) 598

Q.7. Write the number just after :
(a) 709 (b) 387 (c) 449 (d) 555

Sol. (a) 710 (b) 388 (c) 450 (d) 556

Q.8. Form the number with :
(a) 4 in hundreds place, 0 in ones place, 8 in tens place
(b) 8 in tens place, 5 in ones place, 7 in hundreds place
(c) 3 in ones place, 3 in hundreds place, 0 in tens place
(d) 7 in hundreds place, 0 in tens place, 9 in ones place

Sol. (a) 480 (b) 785 (c) 303 (d) 709

Chapter-4 A Village Scene

Exercise 4.1

Q.1. Fill in the blanks with proper symbols (<, >, =):
(a) 400 ______ 398 ______ 389
(b) 749 ______ 794 ______ 497
(c) 687 ______ 786 ______ 867
(d) 999 ______ 989 ______ 1000
(e) 545 ______ 455 ______ 455

Sol. (a) >, > (b) <, > (c) <, < (d) >, < (e) >, =

Q.2. Fill the circles with proper symbols (<, >, =):
(a) Three hundred forty-seven ○ Seven hundred forty-three
(b) Five hundred nine○Nine hundred five
(c) 789○ Seven hundred seventy-nine
(d) 848○ Eight hundred forty-eight
(e) Nine hundred fifty-two○957
(f) Six hundred five ○ Five hundred six
(g) Six hundred eighty-seven ○ Seven hundred eighty-six
(h) Four hundred forty-one○441

Sol. (a) < (b) < (c) > (d) = (e) < (f) > (g) > (h) =

Chapter-5 Addition

Exercise 5.1

Q.1. Add the following :

(a) $$\begin{array}{r} \text{TTh Th H T O} \\ 6\;7\;1\;3\;3 \\ +\;2\;1\;7\;4\;5 \\ \hline \\ \hline \end{array}$$

(b) $$\begin{array}{r} \text{TTh Th H T O} \\ 4\;7\;3\;1\;9 \\ +\;1\;1\;3\;6\;0 \\ \hline \\ \hline \end{array}$$

(c) $$\begin{array}{r} \text{L TTh Th H T O} \\ 4\;2\;3\;2\;4\;5 \\ +\;3\;4\;1\;5\;1\;2 \\ \hline \\ \hline \end{array}$$

(d) $$\begin{array}{r} \text{L TTh Th H T O} \\ 7\;2\;2\;3\;3\;2 \\ +\;1\;4\;0\;0\;0\;2 \\ +\;2\;2\;2\;0\;1 \\ \hline \\ \hline \end{array}$$

(e) $$\begin{array}{r} \text{L TTh Th H T O} \\ 7\;5\;6\;3\;2\;4 \\ 3\;1\;4\;4\;5 \\ +\;1\;2\;3\;0 \\ \hline \\ \hline \end{array}$$

(f) $$\begin{array}{r} \text{L TTh Th H T O} \\ 9\;5\;4\;6\;0\;3 \\ 2\;5\;1\;7\;0 \\ +\;2\;2\;4 \\ \hline \\ \hline \end{array}$$

Sol. (a) $$\begin{array}{r} 6\;7\;1\;3\;3 \\ +\;2\;1\;7\;4\;5 \\ \hline 8\;8\;8\;7\;8 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 4\;7\;3\;1\;9 \\ +\;1\;1\;3\;6\;0 \\ \hline 5\;8\;6\;7\;9 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 4\;2\;3\;2\;4\;5 \\ +\;3\;4\;1\;5\;1\;2 \\ \hline 7\;6\;7\;7\;5\;7 \\ \hline \end{array}$$

(d) $$\begin{array}{r} 7\;2\;2\;3\;3\;2 \\ +\;1\;4\;0\;0\;0\;2 \\ +\;2\;2\;2\;0\;1 \\ \hline 8\;8\;4\;5\;3\;5 \\ \hline \end{array}$$

(e) $$\begin{array}{r} 7\;5\;6\;3\;2\;4 \\ 3\;1\;4\;4\;5 \\ +\;1\;2\;3\;0 \\ \hline 7\;8\;8\;9\;9\;9 \\ \hline \end{array}$$

(f) $$\begin{array}{r} 9\;5\;4\;6\;0\;3 \\ 2\;5\;1\;7\;0 \\ +\;2\;2\;4 \\ \hline 9\;7\;9\;9\;9\;7 \\ \hline \end{array}$$

Q.2. Arrange the following numbers in columns and find their sum.

(a) 225360 + 42407 + 1231 + 101

(b) 303543 + 62104 + 3221 + 121 + 10

(c) 123033 + 31232 + 3001 + 11

(d) 120000 + 210490 + 11000 + 101

Sol. (a) $$\begin{array}{r} 225360 \\ 42407 \\ 1231 \\ +101 \\ \hline 269099 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 303543 \\ 62104 \\ 3221 \\ 121 \\ +10 \\ \hline 368999 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 123033 \\ 31232 \\ 3001 \\ +11 \\ \hline 157277 \\ \hline \end{array}$$

(d) $$\begin{array}{r} 120000 \\ 210490 \\ 11000 \\ +101 \\ \hline 341591 \\ \hline \end{array}$$

Exercise 5.2

Q.1. Add the following :

(a) $$\begin{array}{r} 56349 \\ +34763 \\ \hline \\ \hline \end{array}$$

(b) $$\begin{array}{r} 69785 \\ +27958 \\ \hline \\ \hline \end{array}$$

(c) $$\begin{array}{r} 93768 \\ 24597 \\ +15636 \\ \hline \\ \hline \end{array}$$

(d) $$\begin{array}{r} 86945 \\ 27498 \\ +23761 \\ \hline \\ \hline \end{array}$$

(e) $$\begin{array}{r} 77562 \\ 10908 \\ 5631 \\ +\;9186 \\ \hline \\ \hline \end{array}$$

(f) $$\begin{array}{r} 210503 \\ 95687 \\ 780376 \\ +\;\;6756 \\ \hline \\ \hline \end{array}$$

(g) $$\begin{array}{r} 365849 \\ 156482 \\ 657 \\ +\;2304 \\ \hline \\ \hline \end{array}$$

(h) $$\begin{array}{r} 1896 \\ 65138 \\ +709928 \\ 987356 \\ \hline \\ \hline \end{array}$$

Sol. (a) $$\begin{array}{r} \text{①①①①} \\ 56349 \\ +34763 \\ \hline 91112 \\ \hline \end{array}$$

(b) $$\begin{array}{r} \text{①①①①} \\ 69785 \\ +27958 \\ \hline 97743 \\ \hline \end{array}$$

(c) $$\begin{array}{r} \text{①②②②} \\ 93768 \\ 24597 \\ +15636 \\ \hline 134001 \\ \hline \end{array}$$

(d) $$\begin{array}{r} \text{①②②①} \\ 86945 \\ 27498 \\ +23761 \\ \hline 138204 \\ \hline \end{array}$$

(e) $$\begin{array}{r} \text{②②①①} \\ 77562 \\ 10908 \\ +\;5631 \\ 9186 \\ \hline 103287 \\ \hline \end{array}$$

(f) $$\begin{array}{r} \text{①①②②②} \\ 210503 \\ 95687 \\ +780376 \\ 6756 \\ \hline 1093322 \\ \hline \end{array}$$

(g) $$\begin{array}{r} \text{①①②①②} \\ 365849 \\ 156482 \\ 657 \\ +\;2304 \\ \hline 525292 \\ \hline \end{array}$$

(h) $$\begin{array}{r} \text{②②②} \\ \text{②}1896 \\ \text{①}65138 \\ +709928 \\ 987356 \\ \hline 1764318 \\ \hline \end{array}$$

Q.2. Arrange the following numbers in columns and find the sum :

(a) 28697 + 53086 + 47356 + 20893

(b) 64009 + 999 + 7777 + 18584

(c) 268479 + 153107 + 96268 + 8936

(d) 52364 + 5412 + 64

Sol. (a)
$$\begin{array}{r} \text{②②③②}\\ 28697\\ 53086\\ 47356\\ +20893\\ \hline 150032\\ \hline \end{array}$$

(b)
$$\begin{array}{r} \text{②②②②}\\ 64009\\ 999\\ 7777\\ +18584\\ \hline 91369\\ \hline \end{array}$$

(c)
$$\begin{array}{r} \text{①②①①③}\\ 268479\\ 153107\\ 96268\\ +\ 8936\\ \hline 526790\\ \hline \end{array}$$

(d)
$$\begin{array}{r} \text{①①}\\ 52364\\ 5412\\ +64\\ \hline 57840\\ \hline \end{array}$$

Exercise 5.3

Find the missing digits :

1.
$$\begin{array}{ccccc} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & 2 & \bigcirc & 7 & 9\\ + & 9 & 7 & \bigcirc & 5\\ \hline \bigcirc & \bigcirc & 9 & 2 & \bigcirc\\ \hline \end{array}$$

2.
$$\begin{array}{ccccc} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & 7 & 2 & \bigcirc & 3\\ + & \bigcirc & 8 & 1 & 9\\ \hline 1 & 2 & \bigcirc & 9 & \bigcirc\\ \hline \end{array}$$

3.
$$\begin{array}{ccccc} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & 9 & \bigcirc & \bigcirc & 4\\ + & \bigcirc & 1 & 8 & 2\\ \hline 1 & 4 & 1 & 4 & \bigcirc\\ \hline \end{array}$$

4.
$$\begin{array}{ccccc} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & 5 & 3 & \bigcirc & \bigcirc\\ + & \bigcirc & \bigcirc & 7 & 1\\ \hline & 6 & 9 & 6 & 3\\ \hline \end{array}$$

5.
$$\begin{array}{ccccc} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & \bigcirc & 0 & 2 & \bigcirc\\ + & 1 & \bigcirc & \bigcirc & 6\\ \hline & 3 & 4 & 6 & 8\\ \hline \end{array}$$

6.
$$\begin{array}{ccccc} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & \bigcirc & 7 & 0 & 7\\ + & 5 & \bigcirc & \bigcirc & 9\\ \hline & 9 & 0 & 0 & \bigcirc\\ \hline \end{array}$$

7.
$$\begin{array}{cccccc} & \text{Th} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & 6 & \bigcirc & 2 & 7 & 1\\ + & \bigcirc & 6 & 1 & \bigcirc & 3\\ \hline & 7 & 5 & \bigcirc & 9 & \bigcirc\\ \hline \end{array}$$

8.
$$\begin{array}{cccccc} & \text{Th} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & \bigcirc & 4 & \bigcirc & 6 & 2\\ + & 3 & 4 & 9 & \bigcirc & 5\\ \hline & 8 & \bigcirc & 2 & 1 & \bigcirc\\ \hline \end{array}$$

9.
$$\begin{array}{cccccc} & \text{Th} & \text{Th} & \text{H} & \text{T} & \text{O}\\ & 6 & 1 & 0 & \bigcirc & 4\\ + & \bigcirc & 3 & \bigcirc & 8 & \bigcirc\\ \hline & 8 & \bigcirc & 0 & 4 & 2\\ \hline \end{array}$$

Sol. 1. 9 + 5 = ①④
① + 7 + 0 = 2 ⇒8 +◯= 2 ⇒8 + ④= ① 2
① +◯+ 7 = 9 ⇒ 8 + +① = 9
2 + 9 = ①①

2. 3 + 9 = ①②
① +◯+ 1 = 9 ⇒ 2 +◯= 9 ⇒ 2+ ⑦= 9
2 + 8 =① ⓪
①+ 7 +◯= 12 ⇒8 +◯= 12⇒8 +④= 12

3. 4 + 2 =⑥
◯+ 8 = 4 ⇒⑥+ 8 = ①4
①+◯+ 1 = 1 ⇒2 +◯= 1 = 2 +⑨ = ①1
①+ 9 +◯= 14 ⇒10 +◯= 14 ⇒10 +④= 14

4. ◯+ 1 = 3 ⇒②+ 1 = 3
◯+ 7 = 6 ⇒⑨+ 7 =①6
①+ 3 +◯= 9 ⇒4 +◯= 9 = 4 +⑤ = 9
5 + 0 = 6 ⇒ 5 +①= 6

5. ◯+ 6 = 8 ⇒②+ 6 = 8
2 +◯= 6 ⇒ 2 +④= 6
◯+ 0 = 4 ⇒ 0 +④= 4
◯+ 1 = 3 ⇒②+ 1 = 3

6. 7 + 9 =◯⇒7 + 9 =①⑥
①+ 0 +◯=◯⇒1 +◯= 0 ⇒1 +⑨=①0
①+ 7 +◯= 0 ⇒8 +◯= 0 ⇒8 =②=①0
①+◯+ 5 = 9 ⇒6 +◯= 9 ⇒6 +③= 9

7. 1 + 3 =◯⇒ 1 + 3 =④
7 +◯= 9 ⇒ 7 +②= 9
2 + 1 =◯⇒ 2 + 1 =③
◯+ 6 = 5 ⇒⑨+ 6 =①5
1 + 6 +◯= 7 ⇒+ 7 +◯= 7 ⇒7 +⓪= 7

8. 2 + 5 =◯⇒ 2 + 5 =⑦
6 +◯= 1 ⇒ 6 +⑤=①1
①+◯+ 9 = 2 ⇒10 +◯= 2 ⇒10 +②=①2
①+ 4 + 4 = ◯ ⇒⑤+ 4 =⑨
◯+ 3 = 8 ⇒⑤+ 3 = 8

9. 4 +◯= 2 ⇒4 +⑧=①2
①+◯+ 8 = 4 ⇒ 9 +◯= 4 ⇒9 +⑤=①4
①+◯+◯=◯⇒ 1 +◯= 0 = 1 +⑨=①0
①+ 1 + 3 = 0 ⇒ 2 + 3 =⑤,6 + 0 = 8
6 + 0 = 8 ⇒6 +②= 8

Exercise 5.4

Q.1. Fill in the blanks using order property :

(a) 9 + 13 = ____ + ____ = ____
(b) 7 + 8 = ____ + ____ = ____
(c) 6 + 5 = ____ + ____ = ____
(d) 4 + 14 = ____ + ____ = ____

Sol. (a) 9 + 13 = 13 + 9 = 22
(b) 6 + 5 = 5 + 6 = 11
(c) 7 + 8 = 8 + 7 = 15
(d) 4 + 14 = 14 + 4 = 18

Q.2. Insert the braces to satisfy the associative property of addition :

(a) (4 + 7) + 11 = 4 + 7 + 11
(b) 9 + (6 + 2) = 9 + 6 + 2
(c) 8 + 13 + 6 = 8 + (13 + 6)
(d) 12 + 3 + 1 = (12 + 3) + 1

Sol. (a) $(4+7)+11=4+(7+11)$

(b) $9+(6+2)=(9+6)+2$

(c) $(8+13)+6=8+(13+6)$

(d) $12+(3+1)=(12+3)+1$

Q.3. Fill in the blanks using additive property of zero :

(a) _____ + 0 = 10 (b) 0 + _____ = 14

(c) _____ + 13 = 13 (d) 12 + _____ = 12

Sol. (a) 10 (b) 14 (c) 0 (d) 0

Q.4. Identify the addition property used in each question :

(a) $4+6=6+4$

(b) $8+13=13+8$

(c) $(11+2)+8=11+(2+8)$

(d) $0+1=1$

(e) $7+0=7$

(f) $6+(3+7)=(6+3)+7$

Sol. (a) order property

(b) order property

(c) grouping property

(d) Additive Property zero

(e) Additive Property of zero

(f) Grouping property

Exercise 5.5

Q.1. An animal farm has 4541 sheep and 3208 goats. How many grazing animals does the farm shelter has in all?

Sol.

$$\begin{array}{lr} \text{Sheep} & 4541 \\ \text{Goats} & +\ 3208 \\ \hline & 7749 \\ \hline \end{array}$$

Q.2. A painter earned ₹ 20,242 during the month of January, ₹ 22,624 during February and ₹ 18, 634 during March of a particular year. How much did he earn in the three months put together?

Sol.

$$\begin{array}{lr} \text{January} & ₹\ \overset{\textcircled{1}}{2}\overset{\textcircled{1}}{0},\ \overset{\textcircled{1}}{2}\overset{\textcircled{1}}{4}2 \\ \text{Febuary} & ₹\ 22,\ 624 \\ \text{March} & +\ ₹\ 18,\ 634 \\ \hline & 61500 \\ \hline \end{array}$$

Q.3. A courier company delivered 11015 international packages and 9408 domestic packages on 31st December, 2017. How many packages in all did the courier company deliver on New Year's Event?

Sol.

$$\begin{array}{lr} \text{International} & \overset{\textcircled{1}}{1}10\overset{\textcircled{1}}{1}5 \\ \text{Domestic} & +\ 9408 \\ \hline & 20423 \\ \hline \end{array}$$

Q.4. In a fruit mart there are 16500 apples, 1950 mangoes and 16560 papaya. How many fruits are there in the fruit mart?

Sol.

$$\begin{array}{lr} \text{Apple} & \overset{\textcircled{1}}{1}\overset{\textcircled{2}}{6}\overset{\textcircled{1}}{5}00 \\ \text{Mangoes} & 1950 \\ \text{Papaya} & +\ 16560 \\ \hline & 35010 \\ \hline \end{array}$$

Q.5. A famous fast-food chain has 12,000 outlets across India. It also has 16,400 restaurants worldwide. How many restaurants in total does the fast-food chain own?

Sol.

$$\begin{array}{r} 12000 \\ +\ 16400 \\ \hline 28400 \\ \hline \end{array}$$

Q.6. The cost of a sound set is ₹ 18975 and the cost of a LED set is ₹ 8795 more than the sound set. What is the cost of the LED set? What is the total cost of the sound set and the LED set?

Sol. Sound set = ₹ 18975

LED = ₹ 8795 + ₹ 18975

= ₹ 27770

Total cost = ₹ 18975 + ₹ 27770 = ₹ 46745

Q.7. In a mango grove, 81243 malgova, 62132 sendura and 12644 neelam mangoes were plucked from mango trees. Find the total number of mangoes plucked.

Sol.

$$\begin{array}{lr} \text{Molgova} & 8\overset{\textcircled{1}}{1}\overset{\textcircled{1}}{2}43 \\ \text{Sendura} & 62132 \\ \text{Neelam} & +\ 12644 \\ \hline & 156019 \\ \hline \end{array}$$

Q.8. In a particular year, the male population of a city was 67989 more than the female population. If the number of females by 448796. Find the male population and the total population in that year.

Sol. Female population = 448796
Male population = 67989 + 448796
= 516785
Total population = 965581

Must Practice Exercise-5

Q.1. Find the addition of the following :

(a)
$$\begin{array}{r} 66488 \\ +39167 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 41981 \\ +84512 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 80029 \\ 33105 \\ +57551 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 71556 \\ 97761 \\ +79145 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 321898 \\ +570073 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 242324 \\ +598240 \\ \hline \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 537558 \\ +277105 \\ \hline \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 988733 \\ 979985 \\ +790656 \\ \hline \\ \hline \end{array}$$

(i)
$$\begin{array}{r} 391025 \\ 954422 \\ +922971 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{cccccc} & \textcircled{1} & & \textcircled{1} & \textcircled{1} & \\ & 6 & 6 & 4 & 8 & 8 \\ + & 3 & 9 & 1 & 6 & 7 \\ \hline 1 & 0 & 5 & 6 & 5 & 5 \\ \hline \end{array}$$

(b)
$$\begin{array}{cccccc} & & \textcircled{1} & & & \\ & 4 & 1 & 9 & 8 & 1 \\ + & 8 & 4 & 5 & 1 & 2 \\ \hline 1 & 2 & 6 & 4 & 9 & 3 \\ \hline \end{array}$$

(c)
$$\begin{array}{cccccc} & \textcircled{1} & & & \textcircled{1} & \\ & 8 & 0 & 0 & 2 & 9 \\ & 3 & 3 & 1 & 0 & 5 \\ \hline + & 5 & 7 & 5 & 5 & 1 \\ 1 & 7 & 0 & 6 & 8 & 5 \\ \hline \end{array}$$

(d)
$$\begin{array}{cccccc} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \\ & 7 & 1 & 5 & 5 & 6 \\ & 9 & 7 & 7 & 6 & 1 \\ + & 7 & 9 & 1 & 4 & 5 \\ \hline 2 & 4 & 8 & 4 & 6 & 2 \\ \hline \end{array}$$

(e)
$$\begin{array}{ccccccc} & & & & \textcircled{1} & \textcircled{1} & \\ & 3 & 2 & 1 & 8 & 9 & 8 \\ + & 5 & 7 & 0 & 0 & 7 & 3 \\ \hline & 8 & 9 & 1 & 9 & 7 & 1 \\ \hline \end{array}$$

(f)
$$\begin{array}{ccccccc} & \textcircled{1} & \textcircled{1} & & & & \\ & 2 & 4 & 2 & 3 & 2 & 4 \\ + & 5 & 9 & 8 & 2 & 4 & 0 \\ \hline & 8 & 4 & 0 & 5 & 6 & 4 \\ \hline \end{array}$$

(g)
$$\begin{array}{ccccccc} & \textcircled{1} & \textcircled{1} & & & & \\ & 5 & 3 & 7 & 5 & 5 & 8 \\ + & 2 & 7 & 7 & 1 & 0 & 5 \\ \hline & 8 & 1 & 4 & 6 & 6 & 3 \\ \hline \end{array}$$

(h)
$$\begin{array}{ccccccc} & \textcircled{2} & \textcircled{1} & \textcircled{2} & \textcircled{1} & \textcircled{1} & \\ & 9 & 8 & 8 & 7 & 3 & 3 \\ & 9 & 7 & 9 & 9 & 8 & 5 \\ + & 7 & 9 & 0 & 6 & 5 & 6 \\ \hline 2 & 7 & 5 & 9 & 3 & 7 & 4 \\ \hline \end{array}$$

(i)
$$\begin{array}{ccccccc} & \textcircled{1} & & \textcircled{1} & \textcircled{1} & & \\ & 3 & 9 & 1 & 0 & 2 & 5 \\ & 9 & 5 & 4 & 4 & 2 & 2 \\ + & 9 & 2 & 2 & 9 & 7 & 1 \\ \hline 2 & 2 & 6 & 8 & 4 & 1 & 8 \\ \hline \end{array}$$

Q.2. Add the following :
(a) 41372 + 36521 (b) 84361 + 17649
(c) 34561 + 52107 (d) 59210 + 37899

Sol. (a)
$$\begin{array}{cccccc} & 4 & 1 & 3 & 7 & 2 \\ + & 3 & 6 & 5 & 2 & 1 \\ \hline & 7 & 7 & 8 & 9 & 3 \\ \hline \end{array}$$

(b)
$$\begin{array}{cccccc} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \\ & 8 & 4 & 3 & 6 & 1 \\ + & 1 & 7 & 6 & 4 & 9 \\ \hline 1 & 0 & 2 & 0 & 1 & 0 \\ \hline \end{array}$$

(c)
$$\begin{array}{cccccc} & 3 & 4 & 5 & 6 & 1 \\ + & 5 & 2 & 1 & 0 & 7 \\ \hline & 8 & 6 & 6 & 6 & 8 \\ \hline \end{array}$$

(d)
$$\begin{array}{cccccc} & \textcircled{1} & \textcircled{1} & \textcircled{1} & & \\ & 5 & 9 & 2 & 1 & 0 \\ + & 3 & 7 & 8 & 9 & 9 \\ \hline & 9 & 7 & 1 & 0 & 9 \\ \hline \end{array}$$

Q.3. Find the missing numbers :

(a)
$$\begin{array}{ccccc} & 2 & \bigcirc & 5 & \bigcirc \\ + & \bigcirc & 3 & \bigcirc & 3 \\ \hline & 9 & 2 & 4 & 2 \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & \bigcirc & \bigcirc & 5 & 7 \\ + & 4 & 1 & \bigcirc & 0 \\ \hline & 8 & 5 & 0 & \bigcirc \\ \hline \end{array}$$

(c)
$$\begin{array}{cccccc} & \bigcirc & 2 & \bigcirc & \bigcirc & 7 \\ + & 3 & \bigcirc & 9 & 2 & \bigcirc \\ \hline & 7 & 7 & 0 & 9 & 8 \\ \hline \end{array}$$

Sol. (a) ⑨+ 3 =①2
①+ 5○= 4 ⇒ 6 +⑧=①4
①+○+ 3 = 2 ⇒ 4 +⑧=①2
①+ 2 +○= 9 ⇒ 3 +⑥= 9

(b) 7 +○=⑦
5 +⑤=①0
①+○+ 1 = 5 ⇒ 2 +③= 5
○+ 4 = 8 ⇒④+ 4 = 8

(c) 7 +①= 8
⑦+ 2 = 9
①+ 9 =①0
①+ 2 +○= 7 ⇒ 3 +④= 7
○+ 3 = 7 ⇒④+ 3 = 7

Q.4. Rewrite the addition statement using order property and find the sum :
(a) 4 + 9 = ______ + _____ = _____
(b) 12 + 4 = ______ + _____ = _____

Sol. (a) 4 + 9 = 9 + 4 = 13 (b) 12 + 4 = 4 + 12 = 16

Q.5. Insert the braces to satisfy the associative property of addition :
(a) 10 + (7 + 5) = 10 + 7 + 5
(b) 14 + 8 + 1 = (14 + 8) + 1

Sol. (a) 10 + (7 + 5) = (10 + 7) + 5
(b) 14 + (8 + 1) = (14 + 8) + 1

Q.6. Use the identity and inverse property of addition to fill in the missing number :
(a) _______ + 8 = 8 (b) ________ + 0 = 12
(c) 3 + _______ = 3 (d) 2 + ________ = 2

Sol. (a) 0 (b) 12 (c) 0 (d) 0

Solve the following word problems :

Q.7. Raju purchased a vehicle for ₹ 59425 and spent ₹ 8652 on repairs. How much did the vehicle cost him?

Sol.
$$\begin{array}{lr} & \text{①①}\quad\quad\ \ \\ \text{Vehicle} & ₹\ 5\,9\,4\,2\,5 \\ \text{Require} & ₹\quad 8\,6\,5\,2 \\ \hline & 6\,8\,0\,7\,7 \\ \hline \end{array}$$

Q.8. 82317 people watched the semi-final of the world cup football match, but 31896 more people watched the final. Find the number of people who watched the final.

Sol. Semi final 82317

Final 82317 + 31896 = 114213

Total 82317 + 114213 = 196530

Q.9. There are 45678 males, 32257 females and 59179 children in a town. Find the total population of the town.

Sol.
$$\begin{array}{lr} & \text{①①②②}\ \ \\ \text{Males} & 4\,5\,6\,7\,8 \\ \text{Females} & 3\,2\,2\,5\,7 \\ \text{Children} & 5\,9\,1\,7\,9 \\ \hline \text{Total} & 1\,3\,7\,1\,1\,4 \\ \hline \end{array}$$

Q.10. In a particular year, the production of bulbs in a factory was 68234. It exceeded by 12695 more bulbs in the next year. Find the total production of bulbs in the next year.

Sol. Particular year 68234

Next year 68234 + 12695 = 80929

Total 80929 + 68234 = 149163

Click Type Questions-5

Tick (✔) the correct answer :

Q.1. 8000 + 8 + 26 = ______

(a) 8034 (b) 8043

(c) 8430 (d) 8340

Sol. (a) 8000 + 8 + 26 = 8000 + 26 + 8 = 8000 + 34 = 8034

Q.2. The sum of 7353 and 3000 is :

(a) 9553 (b) 10353

(c) 14353 (d) 10533

Sol. (b) 7353 + 3000 = 10353

Q.3. There are 8614 red clips and 4219 blue clips in a carton. Total number of clips in the carton :

(a) 12388 (b) 12383

(c) 12833 (d) 18233

Sol. (c) 8614 + 4219 = 12833

Q.4. Rani has ₹ 6242. Manu has ₹ 1887 more than Rani. Manu has :

(a) ₹ 8219 (b) ₹ 8912

(c) ₹ 8291 (d) ₹ 8129

Sol. (d) ₹ 6242 + ₹1887 = ₹ 8129

Q.5. The sum of the greatest 3-digit number and smallest 6-digit number is :

(a) 199000 (b) 100999

(c) 19999 (d) 190900

Sol. (b) 999 + 100000 = 100999

Q.6. The number which is 10000 more than 654871 is :

(a) 655871 (b) 664871

(c) 654971 (d) 656971

Sol. (b) 654871 + 10000 = 664871

Q.7. 100 more than 99999 equals :

(a) 10099 (b) 99099

(c) 100099 (d) 100990

Sol. (c) 99999 + 100 = 100099

Q.8. 5 + 6 = 6 + ☐ = 11, here will be

(a) 5 (b) 6 (c) 11 (d) 15

Sol. (a) 5 + 6 = 6 + $\boxed{5}$ = 11

Chapter-6 Subtraction

Exercise 6.1

Q.1. Subtract the following :

(a)
$$\begin{array}{r} 9\,2\,7\,7\,5 \\ -\,2\,1\,4\,5\,1 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 5\,7\,7\,2\,6 \\ -\,1\,1\,6\,1\,3 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 7\,4\,9\,7\,3 \\ -1\,1\,4\,3\,0 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 3\,2\,7\,6\,6 \\ -1\,1\,2\,3\,3 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 3\,2\,9\,2\,3 \\ -1\,1\,8\,1\,0 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 9\,4\,6\,4\,8 \\ -1\,3\,3\,3\,4 \\ \hline \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 2\,6\,2\,4\,7 \\ -1\,4\,1\,1\,4 \\ \hline \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 7\,6\,8\,2\,5 \\ -4\,3\,7\,1\,1 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{r} 9\,2\,7\,7\,5 \\ -\,2\,1\,4\,5\,1 \\ \hline 7\,1\,3\,2\,4 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 5\,7\,7\,2\,6 \\ -\,1\,1\,6\,1\,3 \\ \hline 4\,6\,1\,1\,3 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 7\,4\,9\,7\,3 \\ -1\,1\,4\,3\,0 \\ \hline 6\,3\,5\,4\,3 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 3\,2\,7\,6\,6 \\ -1\,1\,2\,3\,3 \\ \hline 2\,1\,5\,3\,3 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 32923 \\ -11810 \\ \hline 21113 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 94648 \\ -13334 \\ \hline 81314 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 26247 \\ -14114 \\ \hline 12133 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 76825 \\ -43711 \\ \hline 33114 \\ \hline \end{array}$$

Q.2. Find the difference when minuend = 37486, subtrahend = 21032

Sol.
$$\begin{array}{r} 37486 \\ -21032 \\ \hline 16454 \\ \hline \end{array}$$

Q.3. Write in the column form and find the difference :
(a) 62901 – 31600 (b) 20616 – 504

Sol. (a)
$$\begin{array}{r} 62901 \\ -31600 \\ \hline 31301 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 20616 \\ -504 \\ \hline 20112 \\ \hline \end{array}$$

Q.4. Find the difference between 43564 and 34675.

Sol.
$$\begin{array}{r} 43564 \\ -34675 \\ \hline 8889 \\ \hline \end{array}$$

Q.5. Fill in the missing numbers.

(a)
$$\begin{array}{rrrrrrr} & 9 & 5 & 8 & 7 & 6 & 7 \\ - & \square & \square & 4 & \square & 0 & 5 \\ \hline & 2 & 3 & \square & 4 & \square & \square \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrrrr} & 8 & 6 & 0 & 5 & 4 & 7 \\ - & 2 & \square & \square & 2 & \square & 3 \\ \hline & \square & 3 & 0 & \square & 3 & \square \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{r} 958767 \\ -724305 \\ \hline 234462 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 860547 \\ -230213 \\ \hline 630334 \\ \hline \end{array}$$

Q.6. Write a number which is :
(a) 550 less than 2550
(b) 725 less than 7955

Sol. (a)
$$\begin{array}{r} 2550 \\ -550 \\ \hline 2000 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 7955 \\ -725 \\ \hline 7230 \\ \hline \end{array}$$

Exercise 6.2

Q.1. Subtract the following :

(a)
$$\begin{array}{r} 73617 \\ -28856 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 24731 \\ -13102 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 24412 \\ -13102 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 75369 \\ -14188 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 638515 \\ -129669 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 579876 \\ -311196 \\ \hline \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 857823 \\ -296996 \\ \hline \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 215569 \\ -109073 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rrrrrr} & & & \textcircled{12} & \textcircled{15} & \\ & & \textcircled{6} & \textcircled{2} & \textcircled{5} & \textcircled{11} \\ & 7 & 3 & 6 & 1 & 7 \\ - & 2 & 8 & 8 & 5 & 6 \\ \hline & 4 & 4 & 7 & 6 & 1 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrrr} & & & & \textcircled{2} & \textcircled{11} \\ & 2 & 4 & 7 & 3 & 1 \\ - & 1 & 3 & 1 & 0 & 2 \\ \hline & 1 & 1 & 6 & 2 & 9 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 24412 \\ -13102 \\ \hline 11310 \\ \hline \end{array}$$

(d)
$$\begin{array}{rrrrrr} & & & \textcircled{2} & \textcircled{16} & \\ & 7 & 5 & 3 & 6 & 9 \\ - & 1 & 4 & 1 & 8 & 8 \\ \hline & 6 & 1 & 1 & 8 & 1 \\ \hline \end{array}$$

(e)
$$\begin{array}{rrrrrrr} & & & \textcircled{17} & \textcircled{14} & \textcircled{10} & \\ & & \textcircled{2} & \textcircled{7} & \textcircled{4} & \textcircled{0} & \textcircled{15} \\ & 6 & 3 & 8 & 5 & 1 & 5 \\ - & 1 & 2 & 9 & 6 & 6 & 9 \\ \hline & 5 & 0 & 8 & 8 & 4 & 6 \\ \hline \end{array}$$

(f)
$$\begin{array}{rrrrrrr} & & & & \textcircled{7} & \textcircled{17} & \\ & 5 & 7 & 9 & 8 & 7 & 6 \\ - & 3 & 1 & 1 & 1 & 9 & 6 \\ \hline & 2 & 6 & 8 & 6 & 8 & 0 \\ \hline \end{array}$$

(g)
$$\begin{array}{rrrrrrr} & & & & \textcircled{17} & \textcircled{11} & \\ & \textcircled{7} & \textcircled{15} & \textcircled{6} & \textcircled{7} & \textcircled{1} & \textcircled{13} \\ & 8 & 5 & 7 & 8 & 2 & 3 \\ - & 2 & 9 & 6 & 9 & 9 & 6 \\ \hline & 5 & 6 & 0 & 8 & 2 & 7 \\ \hline \end{array}$$

(h)
$$\begin{array}{rrrrrrr} & & \textcircled{0} & \textcircled{15} & \textcircled{4} & \textcircled{16} & \\ & 2 & 1 & 5 & 5 & 6 & 9 \\ - & 1 & 0 & 9 & 0 & 7 & 3 \\ \hline & 1 & 0 & 6 & 4 & 9 & 6 \\ \hline \end{array}$$

Q.2. Write in columns and find the difference.
(a) 43016 – 24167 (b) 123405 – 69547

Sol. (a)
$$\begin{array}{rrrrrr} & & \textcircled{12} & \textcircled{9} & \textcircled{10} & \\ & \textcircled{3} & \textcircled{2} & \textcircled{10} & \textcircled{0} & \textcircled{16} \\ & 4 & 3 & 0 & 1 & 6 \\ - & 2 & 4 & 1 & 6 & 2 \\ \hline & 1 & 8 & 8 & 4 & 9 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrrrr} & & \textcircled{11} & \textcircled{12} & \textcircled{13} & \textcircled{9} & \\ & \textcircled{0} & \textcircled{1} & \textcircled{2} & \textcircled{3} & \textcircled{10} & \textcircled{15} \\ & 1 & 2 & 3 & 4 & 0 & 5 \\ - & & 6 & 9 & 5 & 4 & 7 \\ \hline & & 5 & 3 & 8 & 5 & 8 \\ \hline \end{array}$$

Q.3. Subtract :
(a) 18888 from 25444
(b) 98567 from 111111

Sol. (a)
$$\begin{array}{rrrrrr} & & \textcircled{14} & \textcircled{13} & \textcircled{13} & \\ & \textcircled{1} & \textcircled{4} & \textcircled{3} & \textcircled{3} & \textcircled{14} \\ & 2 & 5 & 4 & 4 & 4 \\ - & 1 & 8 & 8 & 8 & 8 \\ \hline & & 6 & 5 & 5 & 6 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrrrrrr} & & \textcircled{10} & \textcircled{10} & \textcircled{10} & \textcircled{10} & \\ & \textcircled{0} & \textcircled{0} & \textcircled{0} & \textcircled{0} & \textcircled{0} & \textcircled{11} \\ & 1 & 1 & 1 & 1 & 1 & 1 \\ - & & 9 & 8 & 5 & 6 & 7 \\ \hline & & 1 & 2 & 5 & 4 & 4 \\ \hline \end{array}$$

Q.4. Subtract 195876 from the sum of 138674 and 96578.

Sol. (a)
$$\begin{array}{rrrrrrr} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \\ & 1 & 3 & 8 & 6 & 7 & 4 \\ + & & 9 & 6 & 5 & 7 & 8 \\ \hline & 2 & 3 & 5 & 2 & 5 & 2 \\ \hline \end{array}$$

$$\begin{array}{rrrrrrr} & & \textcircled{12} & \textcircled{14} & \textcircled{11} & \textcircled{14} & \\ & \textcircled{1} & \textcircled{2} & \textcircled{4} & \textcircled{1} & \textcircled{1} & \textcircled{12} \\ & 2 & 3 & 5 & 2 & 5 & 2 \\ - & 1 & 9 & 5 & 8 & 7 & 6 \\ \hline & & 3 & 9 & 3 & 7 & 6 \\ \hline \end{array}$$

Q.5. Subtract 5 thousands 18 hundreds from 7 thousands 4 hundreds.

Sol. 5 thousands and 18 hundreds

$$\begin{array}{rrrrr} & 5 & 0 & 0 & 0 \\ + & 1 & 8 & 0 & 0 \\ \hline & 6 & 8 & 0 & 0 \\ \hline \end{array}$$

7 thousand 4 hundreds

$$\begin{array}{rrrrr} & \textcircled{6} & \textcircled{14} & & \\ & 7 & 4 & 0 & 0 \\ - & 6 & 8 & 0 & 0 \\ \hline & & 6 & 0 & 0 \end{array}$$

Q.6. What number should be subtracted from 22222 to get 9999 ?

Sol. $22222 - 9999 = x$

$\Rightarrow \quad 22222 - 9999 = x$

$\Rightarrow \quad x = 22222 - 9999$

$$\begin{array}{rrrrrrr} & & & \textcircled{11} & \textcircled{11} & \textcircled{11} & \\ & & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{12} \\ & 2 & 2 & 2 & 2 & 2 & 2 \\ & & - & 9 & 9 & 9 & 9 \\ \hline & 2 & 1 & 2 & 2 & 2 & 3 \\ \hline \end{array}$$

$\therefore \quad x = 212223$

Exercise 6.3

Fill in the blanks :

Q.1.
$$\begin{array}{rrrrrrr} & 9 & 4 & 4 & 7 & 8 & 8 \\ - & 1 & 2 & 4 & 5 & 6 & 0 \\ \hline & \multicolumn{6}{r}{\boxed{}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{}} \\ + & 1 & 2 & 4 & 5 & 6 & 0 \\ \hline & 9 & 4 & 4 & 7 & 8 & 8 \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrrrr} & 9 & 4 & 4 & 7 & 8 & 8 \\ - & 1 & 2 & 4 & 5 & 6 & 0 \\ \hline & \multicolumn{6}{r}{\boxed{820228}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{820228}} \\ + & 1 & 2 & 4 & 5 & 6 & 0 \\ \hline & 9 & 4 & 4 & 7 & 8 & 8 \\ \hline \end{array}$$

Q.2.
$$\begin{array}{rrrrrrr} & 7 & 3 & 8 & 4 & 1 & 7 \\ - & 3 & 3 & 3 & 1 & 4 & 5 \\ \hline & \multicolumn{6}{r}{\boxed{}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{}} \\ + & 3 & 3 & 3 & 1 & 4 & 5 \\ \hline & 7 & 3 & 8 & 4 & 1 & 7 \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrrrr} & & & & \textcircled{3} & \textcircled{11} & \\ & 7 & 3 & 8 & 4 & 1 & 7 \\ - & 3 & 3 & 3 & 1 & 4 & 5 \\ \hline & \multicolumn{6}{r}{\boxed{405272}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & & & & \textcircled{1} & & \\ & \multicolumn{6}{r}{\boxed{405272}} \\ + & 3 & 3 & 3 & 1 & 4 & 5 \\ \hline & 7 & 3 & 8 & 4 & 1 & 7 \\ \hline \end{array}$$

Q.3.
$$\begin{array}{rrrrrrr} & 6 & 3 & 8 & 5 & 1 & 5 \\ - & 1 & 2 & 9 & 6 & 6 & 9 \\ \hline & \multicolumn{6}{r}{\boxed{}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{}} \\ + & 1 & 2 & 9 & 6 & 6 & 9 \\ \hline & 6 & 3 & 8 & 5 & 1 & 5 \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrrrr} & & & \textcircled{17} & \textcircled{14} & \textcircled{10} & \\ & & \textcircled{2} & \textcircled{7} & \textcircled{4} & \textcircled{0} & \textcircled{15} \\ & 6 & 3 & 8 & 5 & 1 & 5 \\ - & 1 & 2 & 9 & 6 & 6 & 9 \\ \hline & \multicolumn{6}{r}{\boxed{508846}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & & \textcircled{1} & \textcircled{1} & \textcircled{1} & \textcircled{1} & \\ & \multicolumn{6}{r}{\boxed{508846}} \\ + & 1 & 2 & 9 & 6 & 6 & 9 \\ \hline & 6 & 3 & 8 & 5 & 1 & 5 \\ \hline \end{array}$$

Q.4.
$$\begin{array}{rrrrrrr} & 8 & 3 & 1 & 3 & 0 & 7 \\ - & 6 & 3 & 1 & 1 & 8 & 0 \\ \hline & \multicolumn{6}{r}{\boxed{}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{}} \\ + & 6 & 3 & 1 & 1 & 8 & 0 \\ \hline & 8 & 3 & 1 & 3 & 0 & 7 \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrrrr} & & & & \textcircled{2} & \textcircled{10} & \\ & 8 & 3 & 1 & 3 & 0 & 7 \\ - & 6 & 3 & 1 & 1 & 8 & 0 \\ \hline & \multicolumn{6}{r}{\boxed{200127}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & & & & \textcircled{1} & & \\ & \multicolumn{6}{r}{\boxed{200127}} \\ + & 6 & 3 & 1 & 1 & 8 & 0 \\ \hline & 8 & 3 & 1 & 3 & 0 & 7 \\ \hline \end{array}$$

Q.5.
$$\begin{array}{rrrrrrr} & 9 & 3 & 9 & 0 & 1 & 2 \\ - & 1 & 2 & 6 & 7 & 8 & 8 \\ \hline & \multicolumn{6}{r}{\boxed{}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{}} \\ + & 1 & 2 & 6 & 7 & 8 & 8 \\ \hline & 9 & 3 & 9 & 0 & 1 & 2 \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrrrr} & & & & \textcircled{9} & \textcircled{10} & \\ & & & \textcircled{8} & \textcircled{10} & \textcircled{0} & \textcircled{12} \\ & 9 & 3 & 9 & 0 & 1 & 2 \\ - & 1 & 2 & 6 & 7 & 8 & 8 \\ \hline & \multicolumn{6}{r}{\boxed{812224}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & & & \textcircled{1} & \textcircled{1} & \textcircled{1} & \\ & \multicolumn{6}{r}{\boxed{812224}} \\ + & 1 & 2 & 6 & 7 & 8 & 8 \\ \hline & 9 & 3 & 9 & 0 & 1 & 2 \\ \hline \end{array}$$

Q.6.
$$\begin{array}{rrrrrrr} & 5 & 7 & 9 & 8 & 7 & 6 \\ - & 3 & 1 & 1 & 1 & 9 & 6 \\ \hline & \multicolumn{6}{r}{\boxed{}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & \multicolumn{6}{r}{\boxed{}} \\ + & 3 & 1 & 1 & 1 & 9 & 6 \\ \hline & 5 & 7 & 9 & 8 & 7 & 6 \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrrrr} & & & & \textcircled{7} & \textcircled{17} & \\ & 5 & 7 & 9 & 8 & 7 & 6 \\ - & 3 & 1 & 1 & 1 & 9 & 6 \\ \hline & \multicolumn{6}{r}{\boxed{268680}} \\ \hline \end{array} \quad \longleftrightarrow \quad \begin{array}{rrrrrrr} & & & & \textcircled{1} & & \\ & \multicolumn{6}{r}{\boxed{268680}} \\ + & 3 & 1 & 1 & 1 & 9 & 6 \\ \hline & 5 & 7 & 9 & 8 & 7 & 6 \\ \hline \end{array}$$

Q.7.
$$\begin{array}{rrrrr} & 9 & 6 & \boxed{} & 7 \\ - & 6 & 4 & 6 & 1 \\ \hline & \boxed{} & \boxed{} & 3 & \boxed{} \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrr} & 9 & 6 & \boxed{9} & 7 \\ - & 6 & 4 & 6 & 1 \\ \hline & \boxed{3} & \boxed{2} & 3 & \boxed{6} \\ \hline \end{array}$$

Q.8.
$$\begin{array}{rrrrr} & 5 & \boxed{} & 4 & 3 \\ - & \boxed{} & 5 & \boxed{} & 7 \\ \hline & 2 & 2 & 0 & \boxed{} \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrr} & 5 & \boxed{7} & 4 & 3 \\ - & \boxed{3} & 5 & \boxed{3} & 7 \\ \hline & 2 & 2 & 0 & \boxed{6} \\ \hline \end{array}$$

Q.9.
$$\begin{array}{rrrrr} & 7 & \boxed{} & 8 & 1 \\ - & \boxed{6} & 0 & \boxed{} & 7 \\ \hline & \boxed{} & 8 & 2 & \boxed{} \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrr} & 7 & \boxed{8} & 8 & 1 \\ - & 6 & 0 & \boxed{5} & 7 \\ \hline & \boxed{1} & 8 & 2 & \boxed{4} \\ \hline \end{array}$$

Q.10.
$$\begin{array}{rrrrr} & 3 & 8 & \boxed{} & 3 \\ - & 2 & \boxed{} & 6 & 4 \\ \hline & \boxed{} & 5 & 1 & \boxed{} \\ \hline \end{array}$$

Sol.
$$\begin{array}{rrrrr} & 3 & 8 & \boxed{8} & 3 \\ - & 2 & \boxed{3} & 6 & 4 \\ \hline & \boxed{1} & 5 & 1 & \boxed{9} \\ \hline \end{array}$$

Exercise 6.4

Q.1. There are 18649 red clips and 42519 blue clips in a carton. What is the total number of clips in the carton ?

Sol.
$$\begin{array}{lrrrrrr} & & \textcircled{1} & \textcircled{1} & & \textcircled{1} & \\ \text{Red clips} & & 1 & 8 & 6 & 4 & 9 \\ \text{Blue clips} & + & 4 & 2 & 5 & 1 & 9 \\ \cline{2-7} \text{Total} & & 6 & 1 & 1 & 6 & 8 \\ \cline{2-7} \end{array}$$

Q.2. A farmer bring 86475 bags of carrot to the market. He sold 52431 bags. How many bags of carrot are left ?

Sol.
$$\begin{array}{lrrrrrr} \text{Carrot bags} & & 8 & 6 & 4 & 7 & 5 \\ \text{Sold} & - & 5 & 2 & 4 & 3 & 1 \\ \cline{2-7} \text{Left} & & 3 & 4 & 0 & 4 & 4 \\ \cline{2-7} \end{array}$$

Q.3. Manisha has ₹ 12642. She has ₹ 8871 more than Keshav. How much money does Keshav have ?

Sol.
$$\begin{array}{rrrrrr} & & \textcircled{11} & \textcircled{15} & & \\ & \textcircled{0} & \textcircled{1} & \textcircled{5} & \textcircled{14} & \\ ₹ & 1 & 2 & 6 & 4 & 2 \\ ₹ & - & 8 & 8 & 7 & 1 \\ \hline & & 3 & 7 & 7 & 1 \\ \hline \end{array}$$

Q.4. In a school 22381 students went to various educational tours last year. If 11356 students went to some tours this year, how many more students went last year ?

Sol.
$$\begin{array}{rrrrrr} & & & & \textcircled{7} & \textcircled{11} \\ & 2 & 2 & 3 & 8 & 1 \\ - & 1 & 1 & 3 & 5 & 6 \\ \hline & 1 & 1 & 0 & 2 & 5 \\ \hline \end{array}$$

Q.5. The difference between two numbers is 4937. If the greater number is 130451, what is the smaller number ?

Sol.
$$\begin{array}{rrrrrrr} & & & \textcircled{9} & & & \\ & & \textcircled{2} & \textcircled{10} & \textcircled{14} & \textcircled{4} & \textcircled{11} \\ & 1 & 3 & 0 & 4 & 5 & 1 \\ & & - & 4 & 9 & 3 & 7 \\ \hline & 1 & 2 & 5 & 5 & 1 & 4 \\ \hline \end{array}$$

Q.6. A lake was stocked with 172392 fish and a pond was stocked with 189231 fish. How many more fish were in pond than in lake ?

Sol.
$$\begin{array}{rrrrrrr} & & & & \textcircled{11} & \textcircled{12} & \\ & & & \textcircled{8} & \textcircled{1} & \textcircled{2} & \textcircled{11} \\ & 1 & 8 & 9 & 2 & 3 & 1 \\ - & 1 & 7 & 2 & 3 & 9 & 2 \\ \hline & & 1 & 6 & 8 & 3 & 9 \\ \hline \end{array}$$

Q.7. The difference between two numbers is 35489. If the greater of the two numbers is 73325, find the sum of both the numbers.

Sol.
$$\begin{array}{rrrrrr} & & \textcircled{12} & \textcircled{12} & \textcircled{11} & \\ & \textcircled{6} & \textcircled{2} & \textcircled{2} & \textcircled{1} & \textcircled{15} \\ & 7 & 3 & 3 & 2 & 5 \\ - & 3 & 5 & 4 & 8 & 9 \\ \hline & 3 & 7 & 8 & 3 & 6 \\ \hline \end{array} \qquad \begin{array}{rrrrrr} & \textcircled{1} & \textcircled{1} & & \textcircled{1} & \\ & 7 & 3 & 3 & 2 & 5 \\ + & 3 & 7 & 8 & 3 & 6 \\ \hline 1 & 1 & 1 & 1 & 6 & 1 \\ \hline \end{array}$$

Q.8. Vikash has made 12506 runs in his cricket career and Govind has made 13934. Who has got more runs and how many more ?

Sol. Govinda
$$\begin{array}{rrrrrr} & & & & \textcircled{2} & \textcircled{14} \\ & 1 & 3 & 9 & 3 & 4 \\ - & 1 & 2 & 5 & 0 & 6 \\ \hline & & 1 & 4 & 2 & 8 \\ \hline \end{array}$$

Q.9. A school library has 36897 books in total in which 14769 books on Mathematics and 14575 books on Science and remaining books are of other subjects. How many books of other subjects are there in the library ?

Sol.
$$\begin{array}{lrrrrrr} & & & \textcircled{1} & \textcircled{1} & \textcircled{1} & \\ \text{Mathematics} & & 1 & 4 & 7 & 6 & 9 \\ \text{Science} & + & 1 & 4 & 5 & 7 & 5 \\ \cline{2-7} \text{Total} & & 2 & 9 & 3 & 4 & 4 \\ \cline{2-7} \end{array}$$

$$\begin{array}{lrrrrrr} & & \textcircled{2} & \textcircled{16} & & & \\ \text{All book} & & 3 & 6 & 8 & 9 & 7 \\ \text{Total} & - & 2 & 9 & 3 & 4 & 4 \\ \cline{2-7} \text{Remaining} & & & 7 & 5 & 5 & 3 \\ \cline{2-7} \end{array}$$

Q.10. There were 44,652 people in a city. Out of the 2689 people moved away to another town. How many people are left in the city now ?

Sol.

$$\begin{array}{cccccc} & & & \textcircled{15} & \textcircled{14} & \\ & & \textcircled{3} & \textcircled{5} & \textcircled{4} & \textcircled{12} \\ & 4 & 4 & 6 & 5 & 2 \\ - & & 2 & 6 & 8 & 9 \\ \hline & 4 & 1 & 9 & 6 & 3 \\ \hline \end{array}$$

Must Practice Exercise 6

Q.1. Solve the following :

(a)
$$\begin{array}{ccccc} & 7 & 5 & 8 & 3 \\ - & 6 & 9 & 1 & 8 \\ \hline & & & & \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & 9 & 6 & 9 & 7 \\ - & 6 & 4 & 6 & 1 \\ \hline & & & & \\ \hline \end{array}$$

(c)
$$\begin{array}{ccccc} & 7 & 2 & 9 & 2 \\ - & 1 & 1 & 6 & 1 \\ \hline & & & & \\ \hline \end{array}$$

(d)
$$\begin{array}{ccccc} & 7 & 7 & 4 & 1 \\ - & 4 & 2 & 7 & 0 \\ \hline & & & & \\ \hline \end{array}$$

(e)
$$\begin{array}{cccccc} & 3 & 2 & 1 & 3 & 3 \\ - & 1 & 1 & 2 & 6 & 7 \\ \hline & & & & & \\ \hline \end{array}$$

(f)
$$\begin{array}{cccccc} & 6 & 6 & 1 & 5 & 1 \\ - & 1 & 9 & 2 & 1 & 7 \\ \hline & & & & & \\ \hline \end{array}$$

(g)
$$\begin{array}{cccccc} & 7 & 6 & 3 & 6 & 5 \\ - & 6 & 2 & 2 & 1 & 2 \\ \hline & & & & & \\ \hline \end{array}$$

(h)
$$\begin{array}{cccccc} & 5 & 3 & 5 & 4 & 2 \\ - & 3 & 5 & 4 & 9 & 0 \\ \hline & & & & & \\ \hline \end{array}$$

(i)
$$\begin{array}{ccccccc} & 8 & 8 & 8 & 0 & 5 & 9 \\ - & 1 & 1 & 0 & 7 & 5 & 3 \\ \hline & & & & & & \\ \hline \end{array}$$

(j)
$$\begin{array}{ccccccc} & 9 & 5 & 9 & 7 & 6 & 7 \\ - & 5 & 4 & 9 & 4 & 2 & 3 \\ \hline & & & & & & \\ \hline \end{array}$$

(k)
$$\begin{array}{ccccccc} & 9 & 9 & 2 & 1 & 1 & 3 \\ - & 2 & 0 & 6 & 4 & 1 & 0 \\ \hline & & & & & & \\ \hline \end{array}$$

(l)
$$\begin{array}{ccccccc} & 6 & 6 & 5 & 9 & 0 & 7 \\ - & 3 & 8 & 0 & 8 & 7 & 8 \\ \hline & & & & & & \\ \hline \end{array}$$

Sol.

(a)
$$\begin{array}{ccccc} & \textcircled{6} & \textcircled{15} & \textcircled{7} & \textcircled{13} \\ & 7 & 5 & 8 & 3 \\ - & 6 & 9 & 1 & 8 \\ \hline & & 6 & 6 & 5 \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & 9 & 6 & 9 & 7 \\ - & 6 & 4 & 6 & 1 \\ \hline & 3 & 2 & 3 & 6 \\ \hline \end{array}$$

(c)
$$\begin{array}{ccccc} & 7 & 2 & 9 & 2 \\ - & 1 & 1 & 6 & 1 \\ \hline & 6 & 1 & 3 & 1 \\ \hline \end{array}$$

(d)
$$\begin{array}{ccccc} & & \textcircled{6} & \textcircled{14} & \\ & 7 & 7 & 4 & 1 \\ - & 4 & 2 & 7 & 0 \\ \hline & 3 & 4 & 7 & 1 \\ \hline \end{array}$$

(e)
$$\begin{array}{cccccc} & & & \textcircled{10} & \textcircled{12} & \\ & & \textcircled{1} & \textcircled{0} & \textcircled{2} & \textcircled{13} \\ & 3 & 2 & 1 & 3 & 3 \\ - & 1 & 1 & 2 & 6 & 7 \\ \hline & 2 & 0 & 8 & 6 & 6 \\ \hline \end{array}$$

(f)
$$\begin{array}{cccccc} & & \textcircled{15} & & & \\ & \textcircled{5} & \textcircled{5} & \textcircled{11} & \textcircled{4} & \textcircled{11} \\ & 6 & 6 & 1 & 5 & 1 \\ - & 1 & 9 & 2 & 1 & 7 \\ \hline & 4 & 6 & 9 & 3 & 4 \\ \hline \end{array}$$

(g)
$$\begin{array}{cccccc} & 7 & 6 & 3 & 6 & 5 \\ - & 6 & 2 & 2 & 1 & 2 \\ \hline & 1 & 4 & 1 & 5 & 3 \\ \hline \end{array}$$

(h)
$$\begin{array}{cccccc} & \textcircled{4} & \textcircled{13} & \textcircled{4} & \textcircled{14} & \\ & 5 & 3 & 5 & 4 & 2 \\ - & 3 & 5 & 4 & 9 & 0 \\ \hline & 1 & 8 & 0 & 5 & 2 \\ \hline \end{array}$$

(i)
$$\begin{array}{ccccccc} & & & \textcircled{7} & \textcircled{10} & \textcircled{2} & \\ & 8 & 8 & 8 & 0 & 5 & 9 \\ - & 1 & 1 & 0 & 7 & 5 & 3 \\ \hline & 7 & 7 & 7 & 3 & 0 & 6 \\ \hline \end{array}$$

(j)
$$\begin{array}{ccccccc} & 9 & 5 & 9 & 7 & 6 & 7 \\ - & 5 & 4 & 9 & 4 & 2 & 3 \\ \hline & 4 & 1 & 0 & 3 & 4 & 4 \\ \hline \end{array}$$

(k)
$$\begin{array}{ccccccc} & & & \textcircled{11} & & & \\ & & \textcircled{8} & \textcircled{1} & \textcircled{11} & & \\ & 9 & 9 & 2 & 1 & 1 & 3 \\ - & 2 & 0 & 6 & 4 & 1 & 0 \\ \hline & 7 & 8 & 5 & 7 & 0 & 3 \\ \hline \end{array}$$

(l)
$$\begin{array}{ccccccc} & & & & & \textcircled{9} & \\ & \textcircled{5} & \textcircled{16} & & \textcircled{8} & \textcircled{10} & \textcircled{17} \\ & 6 & 6 & 5 & 9 & 0 & 7 \\ - & 3 & 8 & 0 & 8 & 7 & 8 \\ \hline & 2 & 8 & 5 & 0 & 2 & 9 \\ \hline \end{array}$$

Q.2. Find the missing number :

(a)
$$\begin{array}{ccccc} & 8 & \square & 9 & 0 \\ - & 3 & 0 & 0 & 2 \\ \hline & \square & 5 & \square & \square \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & 9 & \square & 4 & 2 \\ - & \square & 4 & \square & 7 \\ \hline & 3 & 4 & 2 & \square \\ \hline \end{array}$$

(c)
$$\begin{array}{ccccc} & \square & 2 & \square & 8 \\ - & 2 & \square & 2 & \square \\ \hline & 4 & 6 & 4 & 7 \\ \hline \end{array}$$

(d)
$$\begin{array}{ccccc} & 2 & 3 & \square & 6 \\ - & \square & 0 & 8 & 2 \\ \hline & 1 & \square & 1 & \square \\ \hline \end{array}$$

Sol.

(a)
$$\begin{array}{ccccc} & & & \textcircled{8} & \textcircled{10} \\ & 8 & \boxed{5} & 9 & 0 \\ - & 3 & 0 & 0 & 2 \\ \hline & \boxed{5} & 5 & \boxed{8} & \boxed{8} \\ \hline \end{array}$$

(b)
$$\begin{array}{ccccc} & & & \textcircled{3} & \textcircled{12} \\ & 9 & \boxed{8} & 4 & 2 \\ - & \boxed{6} & 4 & \boxed{1} & 7 \\ \hline & 3 & 4 & 2 & \boxed{5} \\ \hline \end{array}$$

(c)
$$\begin{array}{ccccc} & \textcircled{6} & \textcircled{12} & & \\ & \boxed{7} & 2 & \boxed{6} & 8 \\ - & 2 & \boxed{6} & 2 & \boxed{1} \\ \hline & 4 & 6 & 4 & 7 \\ \hline \end{array}$$

(d)
$$\begin{array}{ccccc} & 2 & 3 & \boxed{9} & 6 \\ - & \boxed{1} & 0 & 8 & 2 \\ \hline & 1 & \boxed{3} & 1 & \boxed{4} \\ \hline \end{array}$$

Q.3. Find the number which is 800 more than 16850.

Sol.

$$\begin{array}{cccccc} & & \textcircled{1} & & & \\ & 1 & 6 & 8 & 5 & 0 \\ & & + & 8 & 0 & 0 \\ \hline & 1 & 7 & 6 & 5 & 0 \\ \hline \end{array}$$

Q.4. What must be subtracted from 50000 to get 28364 ?

Sol. $50000 - x = 28364$

$\Rightarrow \quad x = 50000 - 28364$

$$\begin{array}{cccccc}
 & & \textcircled{9} & \textcircled{9} & \textcircled{9} & \\
 & \textcircled{4} & \textcircled{10} & \textcircled{10} & \textcircled{10} & \textcircled{10} \\
 & 5 & 0 & 0 & 0 & 0 \\
- & 2 & 8 & 3 & 6 & 4 \\ \hline
 & 2 & 1 & 6 & 3 & 6 \\ \hline
\end{array}$$

Q.5. Which number is 888 less than 48665 ?

Sol.

$$\begin{array}{cccccc}
 & & \textcircled{7} & \textcircled{15} & \textcircled{15} & \textcircled{15} \\
 & 4 & 8 & 6 & 6 & 5 \\
 & & - & 8 & 8 & 8 \\ \hline
 & 4 & 7 & 7 & 7 & 7 \\ \hline
\end{array}$$

Q.6. Prashant had ₹ 255600 in his savings bank account. He withdrew ₹ 98300 from it. How much money does he have in his account now ?

Sol.

$$\begin{array}{cccccccc}
 & & \textcircled{1} & \textcircled{14} & \textcircled{15} & & & \\
 & \text{₹} & 2 & 5 & 5 & 6 & 0 & 0 \\
- & \text{₹} & & 9 & 8 & 3 & 0 & 0 \\ \hline
 & \text{₹} & 1 & 5 & 7 & 3 & 0 & 0 \\ \hline
\end{array}$$

Q.7. A man had ₹ 705000 with him. He has given ₹ 327500 to his daughter ₹ 124625 to his wife and the rest to his son. How much money was received by the son ?

Sol.

$$\begin{array}{cccccccc}
 & & & \textcircled{1} & \textcircled{1} & & & \\
 & \text{₹} & 3 & 2 & 7 & 5 & 0 & 0 \\
+ & \text{₹} & 1 & 2 & 4 & 6 & 2 & 5 \\ \hline
 & \text{₹} & 4 & 5 & 2 & 1 & 2 & 5 \\ \hline
\end{array}$$

$$\begin{array}{cccccccc}
 & & & & & \textcircled{9} & \textcircled{9} & \\
 & & \textcircled{6} & \textcircled{10} & \textcircled{4} & \textcircled{10} & \textcircled{10} & \textcircled{10} \\
 & \text{₹} & 7 & 0 & 5 & 0 & 0 & 0 \\
- & \text{₹} & 4 & 5 & 2 & 1 & 2 & 5 \\ \hline
 & \text{₹} & 2 & 5 & 2 & 8 & 7 & 5 \\ \hline
\end{array}$$

Q.8. Vinay had ₹ 841000 with him. He purchased a flat for ₹ 572380 and a car for ₹ 186275. How much money was left with him ?

Sol.

$$\begin{array}{cccccccc}
 & & \textcircled{1} & & & \textcircled{1} & & \\
 & \text{₹} & 5 & 7 & 2 & 3 & 8 & 0 \\
+ & \text{₹} & 1 & 8 & 6 & 2 & 7 & 5 \\ \hline
 & \text{₹} & 7 & 5 & 8 & 6 & 5 & 5 \\ \hline
\end{array}$$

$$\begin{array}{cccccccc}
 & & & \textcircled{13} & \textcircled{10} & \textcircled{9} & \textcircled{9} & \\
 & & \textcircled{7} & \textcircled{3} & \textcircled{0} & \textcircled{10} & \textcircled{10} & \textcircled{10} \\
 & \text{₹} & 8 & 4 & 1 & 0 & 0 & 0 \\
- & \text{₹} & 7 & 5 & 8 & 6 & 5 & 5 \\ \hline
 & & \text{₹} & 8 & 2 & 3 & 4 & 5 \\ \hline
\end{array}$$

Q.9. In an all India examination, 287300 candidates appeared. Out of these, 97435 failed. How many candidates passed ?

Sol.

$$\begin{array}{cccccc}
\textcircled{1} & \textcircled{17} & \textcircled{16} & \textcircled{12} & \textcircled{9} & \textcircled{10} \\
2 & 8 & 7 & 3 & 0 & 0 \\
- & 9 & 7 & 4 & 3 & 5 \\ \hline
1 & 8 & 9 & 8 & 6 & 5 \\ \hline
\end{array}$$

Q.10. In the year 2017, a company produced 903410 bikes. Next year, the production was decreased by 99726. How many bikes were produced in the year 2018 ?

Sol.

$$\begin{array}{cccccc}
\textcircled{8} & \textcircled{9} & \textcircled{12} & \textcircled{13} & \textcircled{10} & \textcircled{10} \\
9 & 0 & 3 & 4 & 1 & 0 \\
- & 9 & 9 & 7 & 2 & 6 \\ \hline
8 & 0 & 3 & 6 & 8 & 4 \\ \hline
\end{array}$$

Click Type Question 6

Tick (✔) the correct answer :

Q.1. $9000 - 3782 =$

(a) 5218 (b) 5328

(c) 6782 (d) 12782

Sol. (a)

$$\begin{array}{ccccc}
 & & \textcircled{9} & \textcircled{9} & \\
 & \textcircled{8} & \textcircled{10} & \textcircled{10} & \textcircled{10} \\
 & 9 & 0 & 0 & 0 \\
- & 3 & 7 & 8 & 2 \\ \hline
 & 5 & 2 & 1 & 8 \\ \hline
\end{array}$$

Q.2. Find the difference between 7505 and 5875.

(a) 1720 (b) 1630

(c) 2480 (d) 2580

Sol. (b)

$$\begin{array}{ccccc}
 & & \textcircled{14} & & \\
 & \textcircled{6} & \textcircled{4} & \textcircled{10} & \\
 & 7 & 5 & 0 & 5 \\
- & 5 & 8 & 7 & 5 \\ \hline
 & 1 & 6 & 3 & 0 \\ \hline
\end{array}$$

Q.3. Which number is 4 less than 2143 ?

(a) 2149 (b) 2147

(c) 2139 (d) 2137

Sol. (c)

$$\begin{array}{ccccc}
 & & & \textcircled{3} & \textcircled{13} \\
 & 2 & 1 & 4 & 3 \\
 & & & - & 4 \\ \hline
 & 2 & 1 & 3 & 9 \\ \hline
\end{array}$$

Q.4. Subtract 83,750 – 29,542

(a) 63,108 (b) 54,309

(c) 54,208 (d) 64,208

Sol. (d)

$$\begin{array}{cccccc}
 & \textcircled{7} & \textcircled{13} & & \textcircled{4} & \textcircled{10} \\
 & 8 & 3 & 7 & 5 & 0 \\
- & 2 & 9 & 5 & 4 & 2 \\ \hline
 & 5 & 4 & 2 & 0 & 8 \\ \hline
\end{array}$$

Q.5. What is the value of m, if 54691 – m = 26896?

(a) 27795 (b) 27957

(c) 29577 (d) 25797

Sol. (a) $m = 54691 - 26896$

$$\begin{array}{cccccc}
 & & ⑬ & ⑮ & ⑱ & \\
 & ④ & ③ & ⑤ & ⑧ & ⑪ \\
 & 5 & 4 & 6 & 9 & 1 \\
- & 2 & 6 & 8 & 9 & 6 \\
\hline
 & 2 & 7 & 7 & 9 & 5 \\
\hline
\end{array}$$

Q.6. 93,468 – 12,875 =

(a) 71413 (b) 80413

(c) 80593 (d) 75892

Sol. (c)

$$\begin{array}{cccccc}
 & & ② & ⑬ & ⑯ & \\
 & 9 & 3 & 4 & 6 & 8 \\
- & 1 & 2 & 8 & 7 & 5 \\
\hline
 & 8 & 0 & 5 & 9 & 3 \\
\hline
\end{array}$$

Q.7. The value of 91483 + 2639 – 1968 – 6596 is :

(a) 85558 (b) 85658

(c) 86568 (d) 85858

Sol. (a)

$$\begin{array}{cccccc}
 & & & & & \\
 & & ① & ① & ① & \\
 & 9 & 1 & 4 & 8 & 3 \\
+ & & 2 & 6 & 3 & 9 \\
\hline
 & 9 & 4 & 1 & 2 & 2 \\
\hline
\end{array}
\rightarrow
\begin{array}{cccccc}
 & & & ⑩ & ⑪ & \\
 & & ③ & ⓪ & ① & ⑫ \\
 & 9 & 4 & 1 & 2 & 2 \\
- & & 1 & 9 & 6 & 8 \\
\hline
 & 9 & 2 & 1 & 5 & 4 \\
\hline
\end{array}
\rightarrow
\begin{array}{cccccc}
 & & ⑪ & ⑩ & ⑭ & \\
 & ⑧ & ① & ⓪ & ④ & ⑭ \\
 & 9 & 2 & 1 & 5 & 4 \\
- & & 6 & 5 & 9 & 6 \\
\hline
 & 8 & 5 & 5 & 5 & 8 \\
\hline
\end{array}$$

Q.8. 100 more than 99990 equals :

(a) 10090 (b) 100900

(c) 100090 (d) 190090

Sol. (c)

$$\begin{array}{ccccccc}
 & & 9 & 9 & 9 & 9 & 0 \\
 & & & + & 1 & 0 & 0 \\
\hline
 & 1 & 0 & 0 & 0 & 9 & 0 \\
\hline
\end{array}$$

Q.9. What is four thousands plus fourteen tens?

(a) 4104 (b) 4140

(c) 4041 (d) 5040

Sol. (b)

$$\begin{array}{ccccc}
 & 4 & 0 & 0 & 0 \\
 & + & 1 & 4 & 0 \\
\hline
 & 4 & 1 & 4 & 0 \\
\hline
\end{array}$$

Q.10. Rohit got 34867 points playing a video game and Shomesh got 29978 points. How many more points did Rohit get than Shomesh ?

(a) 14889 (b) 4999

(c) 4989 (d) 4889

Sol. (d)

$$\begin{array}{cccccc}
 & & ⑬ & ⑰ & ⑮ & \\
 & ② & ③ & ⑦ & ⑤ & ⑰ \\
 & 3 & 4 & 8 & 6 & 7 \\
- & 2 & 9 & 9 & 7 & 8 \\
\hline
 & & 4 & 8 & 8 & 9 \\
\hline
\end{array}$$

Chapter 7 Vedic Ganit

Exercise 7.1

Q.1. Write the Ekhadhiken purven of the following numbers :

Numbers	Ekadhiken purven	New Number
(a) 6 in number 36	$\dot{3}6$	46
(b) 5 in number 345	$3\dot{4}5$	355
(c) 8 in number 82	________	________
(d) 4 in number 548	________	________
(e) 2 in number 256	________	________
(f) 3 in number 43	________	________
(g) 7 in number 671	________	________
(h) 0 in number 2604	________	________
(i) 2 in number 6235	________	________
(j) 9 in number 0495	________	________

Sol.

Numbers	Ekadhiken purven	New Number
(a) 6 in number 36	$\dot{3}6$	46
(b) 5 in number 345	$3\dot{4}5$	355
(c) 8 in number 82	$\dot{0}83$	183
(d) 4 in number 548	$\dot{5}48$	648
(e) 2 in number 256	$\dot{0}256$	1256
(f) 3 in number 43	$\dot{4}3$	53
(g) 7 in number 671	273	373
(h) 0 in number 2604	$2\dot{6}04$	2704
(i) 2 in number 6235	$\dot{6}235$	7235
(j) 9 in number 0495	$0\dot{4}95$	0595

Q.2. Do addition through Ekadhiken Purven

(a) $\begin{array}{r} 5\ 4 \\ +\ 2\ 9 \\ \hline \\ \hline \end{array}$ (b) $\begin{array}{r} 7\ 2 \\ +\ 6\ 9 \\ \hline \\ \hline \end{array}$

(c) $\begin{array}{r} 8\ 9\ 4 \\ +\ 7\ 2\ 3 \\ \hline \\ \hline \end{array}$ (d) $\begin{array}{r} 2\ 9\ 0 \\ +\ 1\ 5\ 8 \\ \hline \\ \hline \end{array}$

(e) $\begin{array}{r} 4\ 0\ 2\ 6 \\ +\ 3\ 4\ 1\ 4 \\ \hline \\ \hline \end{array}$ (f) $\begin{array}{r} 7\ 0\ 5\ 8 \\ +\ 5\ 2\ 9\ 5 \\ \hline \\ \hline \end{array}$

(g) $\begin{array}{r} 5\ 8\ 6\ 1\ 0 \\ +\ 2\ 3\ 2\ 0\ 5 \\ \hline \\ \hline \end{array}$ (h) $\begin{array}{r} 7\ 9\ 0\ 0\ 5 \\ +\ 1\ 5\ 2\ 4\ 9 \\ \hline \\ \hline \end{array}$

Sol. (a)
$$\begin{array}{r} 5\ 4 \\ +\textcircled{\overset{\bullet}{2}}\ 9 \\ \hline 8\ 3 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 7\ 2 \\ +\textcircled{\overset{\bullet}{6}}\ 9 \\ \hline 1\ 4\ 1 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 2\ 9\ 4 \\ +\textcircled{\overset{\bullet}{7}}\ 2\ 3 \\ \hline 1\ 0\ 1\ 7 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 2\ 9\ 0 \\ +\textcircled{\overset{\bullet}{1}}\ 5\ 8 \\ \hline 4\ 4\ 8 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 4\ 0\ 2\ 6 \\ +\ 3\ 4\ \textcircled{\overset{\bullet}{1}}\ 4 \\ \hline 7\ 4\ 4\ 0 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 7\ 0\ 5\ 8 \\ +\ 5\ \textcircled{\overset{\bullet}{2}}\ \textcircled{\overset{\bullet}{9}}\ 5 \\ \hline 1\ 2\ 3\ 5\ 3 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 5\ 8\ 6\ 1\ 0 \\ +\textcircled{\overset{\bullet}{2}}\ 3\ 2\ 0\ 5 \\ \hline 8\ 1\ 8\ 1\ 5 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 7\ 9\ 0\ 0\ 5 \\ +\textcircled{\overset{\bullet}{1}}\ 5\ 2\ \textcircled{\overset{\bullet}{4}}\ 9 \\ \hline 9\ 4\ 2\ 5\ 4 \\ \hline \end{array}$$

Exercise 7.2

Q.1. Write the new number with the Eknyunen purven of ___

(a) 7 in number 37
(b) 2 in number 623
(c) 6 in number 760
(d) 8 in number 1826
(e) 5 in number 7531
(f) 2 in number 9682

Sol. (a) $\underset{\bullet}{3}7, 36$ (b) $\underset{\bullet}{6}23, 613$
(c) $\underset{\bullet}{7}60, 660$ (d) $\underset{\bullet}{1}826, 0826$
(e) $\underset{\bullet}{7}531, 6531$ (f) $96\underset{\bullet}{8}2, 9672$

Q.2. Do subtraction through Eknunen purven.

(a)
$$\begin{array}{r} 4\ 3 \\ -\ 2\ 7 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 7\ 8\ 1 \\ -\ 2\ 7\ 3 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 8\ 7\ 4 \\ -\ 6\ 8\ 7 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 6\ 4\ 3\ 7 \\ -\ 2\ 3\ 2\ 9 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 8\ 9\ 4\ 2 \\ -\ 3\ 4\ 2\ 4 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 8\ 7\ 3\ 9\ 9 \\ -\ 4\ 4\ 8\ 1\ 5 \\ \hline \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 7\ 3\ 8\ 4\ 1\ 7 \\ -\ 3\ 3\ 3\ 1\ 4\ 5 \\ \hline \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 9\ 3\ 9\ 0\ 1\ 2 \\ -\ 1\ 2\ 6\ 7\ 8\ 8 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{r} \textcircled{\underset{\bullet}{4}}\ 3 \\ -\ 2\ 7 \\ \hline 1\ 6 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 7\ \textcircled{\underset{\bullet}{8}}\ 1 \\ -\ 2\ 7\ 3 \\ \hline 5\ 0\ 8 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} \textcircled{\underset{\bullet}{8}}\ \textcircled{\underset{\bullet}{7}}\ 4 \\ -\ 6\ 8\ 7 \\ \hline 1\ 8\ 7 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 6\ 4\ \textcircled{\underset{\bullet}{3}}\ 7 \\ -\ 2\ 3\ 2\ 9 \\ \hline 4\ 1\ 0\ 8 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 8\ 9\ \textcircled{\underset{\bullet}{4}}\ 2 \\ -\ 3\ 4\ 2\ 4 \\ \hline 5\ 5\ 1\ 8 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 8\ \textcircled{\underset{\bullet}{7}}\ 3\ 9\ 9 \\ -\ 4\ 4\ 8\ 1\ 5 \\ \hline 4\ 2\ 5\ 8\ 4 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 7\ 3\ 8\ \textcircled{\underset{\bullet}{4}}\ 1\ 7 \\ -\ 3\ 3\ 3\ 1\ 4\ 5 \\ \hline 4\ 0\ 5\ 2\ 7\ 2 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 9\ 3\ \textcircled{\underset{\bullet}{9}}\ \textcircled{\underset{\bullet}{0}}\ \textcircled{\underset{\bullet}{1}}\ 2 \\ -\ 1\ 2\ 6\ 7\ 8\ 8 \\ \hline 8\ 1\ 2\ 2\ 2\ 4 \\ \hline \end{array}$$

Must Practice Exercise 7

Q.1. Write the Ekhadhiken purven of ___

(a) 8 in number 83
(b) 4 in number 148
(c) 2 in number 257
(d) 3 in number 63
(e) 7 in number 273
(f) 2 in number 6235

Sol. (a) $\dot{0}83, 183$ (b) $\dot{1}48, 248$
(c) $\dot{0}257, 1257$ (d) $\dot{6}3, 73$
(e) $\dot{2}73, 373$ (f) $\dot{6}235, 7235$

Q.2. Do addition through Ekadhiken Purven :

(a)
$$\begin{array}{r} 2\ 8 \\ +\ 1\ 5 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 3\ 4 \\ 2\ 8 \\ +\ 1\ 3 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 2\ 9\ 4 \\ +\ \ 8\ 4\ 2 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 9\ 2\ 3\ 4 \\ +\ \ 5\ 9\ 7\ 1 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 8\ 8\ 0\ 3\ 4 \\ +\ \ 7\ 1\ 4\ 5\ 3 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 8\ 4\ 5\ 1\ 7 \\ 7\ 3\ 9\ 2\ 8 \\ +\ \ 6\ 2\ 9\ 7\ 3 \\ \hline \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 9\ 3\ 5\ 3\ 5\ 4 \\ +\ \ 5\ 1\ 2\ 2\ 3\ 1 \\ \hline \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 9\ 4\ 4\ 0\ 1\ 0 \\ +\ \ 8\ 2\ 3\ 2\ 0\ 5 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{r} 2\;8 \\ +\overset{\bullet}{\textcircled{1}}\;5 \\ \hline 4\;3 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 3\;4 \\ \overset{\bullet}{\textcircled{2}}\;8 \\ +\;1\;3 \\ \hline 7\;5 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 2\;9\;4 \\ +\overset{\bullet}{\textcircled{0}}\,\overset{\bullet}{\textcircled{8}}\;4\;2 \\ \hline 1\;1\;3\;6 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 9\;2\;3\;4 \\ +\overset{\bullet}{\textcircled{0}}\,\overset{\bullet}{\textcircled{5}}\,\overset{\bullet}{\textcircled{9}}\;7\;1 \\ \hline 1\;5\;2\;0\;5 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 8\;8\;0\;3\;4 \\ +\overset{\bullet}{\textcircled{0}}\;7\;1\;4\;5\;3 \\ \hline 1\;5\;9\;4\;8\;7 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 8\;4\;5\;1\;7 \\ \overset{\bullet}{\textcircled{0}}\;7\,\overset{\bullet}{\textcircled{3}}\;9\,\overset{\bullet}{\textcircled{2}}\;8 \\ +\overset{\bullet}{\textcircled{0}}\,\overset{\bullet}{\textcircled{6}}\,\overset{\bullet}{\textcircled{2}}\,\overset{\bullet}{\textcircled{9}}\;7\;3 \\ \hline 2\;2\;1\;4\;1\;8 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 9\;3\;5\;3\;5\;4 \\ +\overset{\bullet}{\textcircled{0}}\;5\;1\;2\;2\;3\;1 \\ \hline 1\;4\;4\;7\;5\;8\;5 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 9\;4\;4\;0\;1\;0 \\ +\overset{\bullet}{\textcircled{0}}\;8\;2\;3\;2\;0\;5 \\ \hline 1\;7\;6\;7\;2\;1\;5 \\ \hline \end{array}$$

Q.3. Write the new number with the Eknyunen purven of_____

(a) 6 in number 860
(b) 7 in number 571
(c) 0 in number 1410
(d) 5 in number 6532
(e) 3 in number 9873

Sol. (a) $\underset{\bullet}{8}60$, 760 (b) $\underset{\bullet}{5}71$, 471

(c) $14\underset{\bullet}{1}0$, 1400 (d) $\underset{\bullet}{6}532$, 5532

(e) $98\underset{\bullet}{7}3$, 9863

Q.4. Do subtraction through Eknunen proven.

(a)
$$\begin{array}{r} 4\;3 \\ -\;1\;7 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 8\;4 \\ -\;5\;7 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 4\;3\;5\;6 \\ -\;2\;8\;7\;2 \\ \hline \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 5\;6\;6\;9 \\ -\;2\;2\;6\;3 \\ \hline \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 7\;8\;5\;0\;5 \\ -\;7\;6\;7\;6\;8 \\ \hline \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 6\;4\;4\;8\;5 \\ -\;5\;9\;2\;9\;3 \\ \hline \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 6\;0\;6\;1\;6\;7 \\ -\;1\;2\;5\;0\;5\;2 \\ \hline \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 9\;0\;8\;9\;0\;2 \\ -\;4\;2\;7\;2\;6\;0 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{r} \underset{\bullet}{\textcircled{4}}\;3 \\ -\;1\;7 \\ \hline 2\;6 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} \underset{\bullet}{\textcircled{8}}\;4 \\ -\;5\;7 \\ \hline 2\;7 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 4\,\underset{\bullet}{\textcircled{3}}\,\underset{\bullet}{\textcircled{5}}\;6 \\ -\;2\;8\;7\;2 \\ \hline 1\;4\;8\;4 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 5\;6\;6\;9 \\ -\;2\;2\;6\;3 \\ \hline 3\;4\;0\;6 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 7\;8\,\underset{\bullet}{\textcircled{5}}\,\underset{\bullet}{\textcircled{0}}\;5 \\ -\;7\;6\;7\;6\;8 \\ \hline 1\;7\;3\;7 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} \underset{\bullet}{\textcircled{6}}\;4\,\underset{\bullet}{\textcircled{4}}\;8\;5 \\ -\;5\;9\;2\;9\;3 \\ \hline 0\;5\;1\;9\;2 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} \underset{\bullet}{\textcircled{6}}\;0\;6\;1\;6\;7 \\ -\;1\;2\;5\;0\;5\;2 \\ \hline 4\;8\;1\;1\;1\;5 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} \underset{\bullet}{\textcircled{9}}\;0\;8\,\underset{\bullet}{\textcircled{9}}\;0\;2 \\ -\;4\;2\;7\;2\;6\;0 \\ \hline 4\;8\;1\;6\;4\;2 \\ \hline \end{array}$$

Click Type Question 7

Tick (✔) the correct answer :

Q.1. Ekadhik sign is shown as :

(a) (•) (b) (+) (c) (.+) (d) (+.)

Sol. (a)

Q.2. Value of Ekadhik of any number is ____ to/than the number.

(a) equal (b) less
(c) greater (d) none of these

Sol. (c)

Q.3. Ekadhik and ekanunen are ____ to each other.

(a) equal (b) reciprocal
(c) same (d) none of these

Sol. (b)

Q.4. Eknunen of any number is ___ to/than the number.

(a) equal (b) less
(c) greater (d) none of these

Sol. (b)

Q.5. Value of $\overset{\bullet}{5}$ is equal to

(a) $\overset{\bullet}{4}$ (b) $\underset{\bullet}{4}$ (c) $\overset{\bullet}{7}$ (d) $\underset{\bullet}{7}$

Sol. (d) $\overset{\bullet}{5} = \underset{\bullet}{6} = 7$

Q.6. Value of 215 is equal to

(a) $\underset{\bullet}{3}\underset{\bullet}{2}\overset{\bullet}{4}$ (b) $\underset{\bullet}{4}\underset{\bullet}{3}\overset{\bullet}{5}$ (c) 205 (d) 325

Sol. (a) $215 = \underset{\bullet}{3}\underset{\bullet}{2}\overset{\bullet}{4}$

Q.7. Value of $\underset{\bullet}{3}1 - 1\overset{\bullet}{3}$ is equal to :

(a) 18 (b) 7 (c) 12 (d) 5

Sol. (b) $\underset{\bullet}{3}1 - 1\overset{\bullet}{3} = 21 - 14 = 7$

Q.8. Value of $\dot{2}3\dot{1} + \dot{4}\underset{\cdot}{5}3$ is equal to :

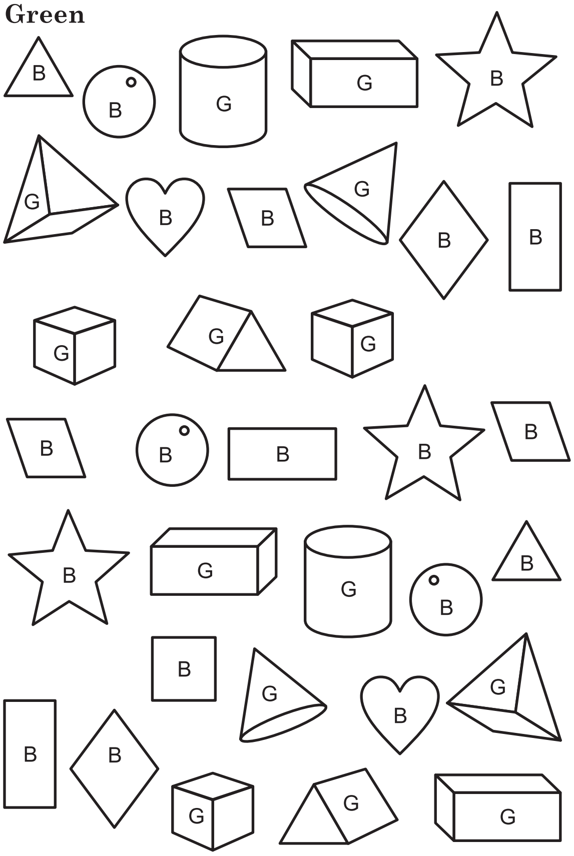
(a) 758 (b) 857 (c) 875 (d) 585

Sol. (c) $\dot{2}3\dot{1} + \dot{4}\underset{\cdot}{5}3 = 332 + 543 = 875$

Chapter-8 Shapes

Exercise 8.1

Colour the 2-D shapes Blue and 3-D shapes Green


B
B
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G
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B
B
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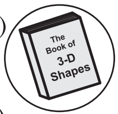
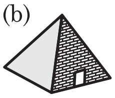
G
G
G

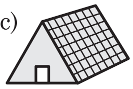
Exercise 8.2

Circle the object the best fits the description :

Q.1. 6 faces, 12 edges, 8 vertices

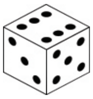
(a)

The Book of 3-D Shapes

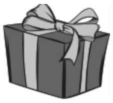
(b)


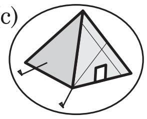
(c)


Sol. (a)

Q.2. 5 faces, 8 edges, 5 vertices

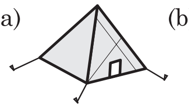
(a)


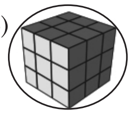
(b)


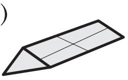
(c)


Sol. (c)

Q.3. 6 faces, 12 edges, 8 vertices

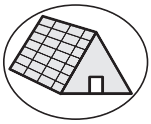
(a)


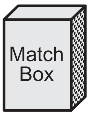
(b)


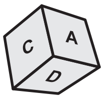
(c)


Sol. (b)

Q.4. 5 faces, 9 edges, 6 vertices

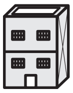
(a)


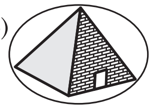
(b)


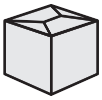
(c)


Sol. (a)

Q.5. 5 faces, 8 edges, 5 vertices

(a)


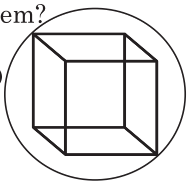
(b)


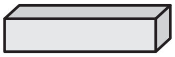
(c)


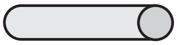
Sol. (b)

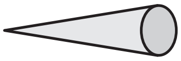
Exercise 8.3

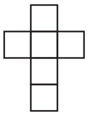
Q.1. How these shapes will lock, if we open them?

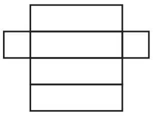
(a)


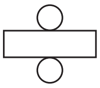
(b)


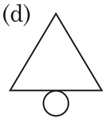
(c)


(d)


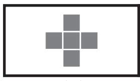
Sol. (a)


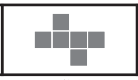
(b)


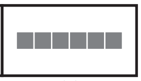
(c)


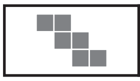
(d)


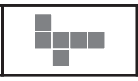
Q.2. Which of the following which forms a cube :

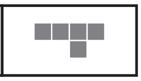

(a)

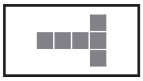

(b)


(c)


(d)


(e)

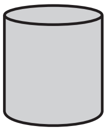

(f)


(g)

Sol. (b), (d), (e), (g)

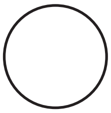
Must Practice Exercise 8

Q.1. Circle the correct choice :



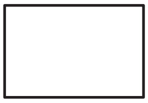
2-D Shape/ 3-D Shape

(a)



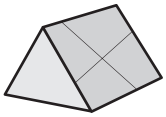
2-D Shape/ 3-D Shape

(b)



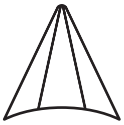
2-D Shape/ 3-D Shape

(c)



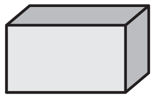
2-D Shape/ 3-D Shape

(d)



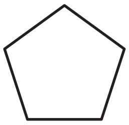
2-D Shape/ 3-D Shape

(e)



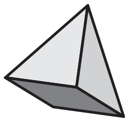
2-D Shape/ 3-D Shape

(f)



2-D Shape/ 3-D Shape

(g)



2-D Shape/ 3-D Shape

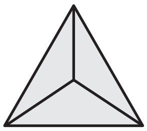
(h)

Sol.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
2D		✔	✔		✔		✔	
3D	✔			✔		✔		✔

Q.2. Write the name of each shape. Also, find the number of faces, edges and vertices :

(a)



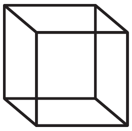
Name : ____________

Faces ☐

Edges ☐

Vertices ☐

(b)



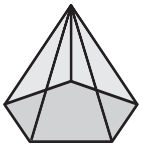
Name : ____________

Faces ☐

Edges ☐

Vertices ☐

(c)



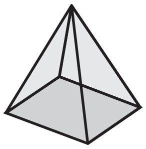
Name : ____________

Faces ☐

Edges ☐

Vertices ☐

(d)



Name : ____________

Faces ☐

Edges ☐

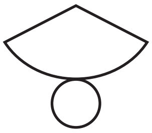
Vertices ☐

Sol.

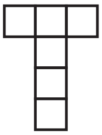
	(a)	(b)	(c)	(d)
Face	4	6	6	5
Edge	6	12	10	8
Vertices	4	8	6	5
Name	Triangular Pyramid	Cube	Pentagonal Pyramid	Square base Pyramid

Q.3. Name the solid shape that can be formed by each net :

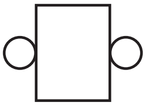
(a)



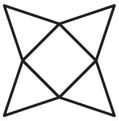
(b)



(c)



(d)

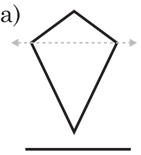
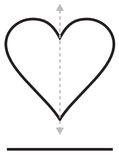
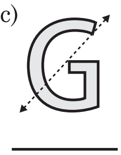
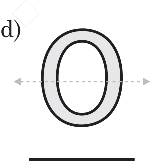
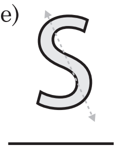


Sol. (a) Cone (b) Cube
(c) Cylinder
(d) Square base Pyramid

Chapter-9 Symmetry

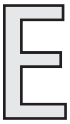
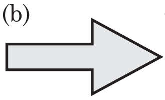
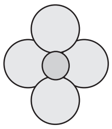
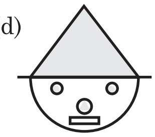
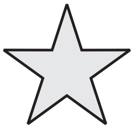
Exercise 9

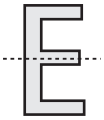
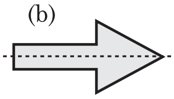
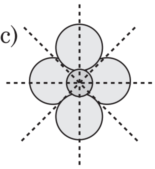
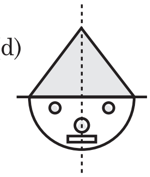
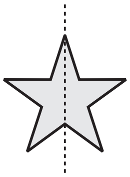
Q.1. Is the dotted line on each shape letter a line of symmetry? Write Yes or No.

(a)

(b)

(c)

(d)

(e)


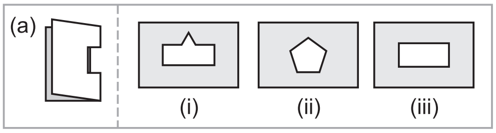
Sol. (a) No (b) Yes (c) No (d) Yes (e) No

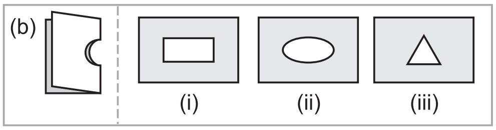
Q.2. Draw a line of symmetry.

(a)

(b)

(c)

(d)

(e)


Sol.
(a)

(b)

(c)

(d)

(e)


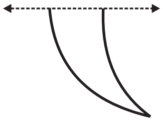
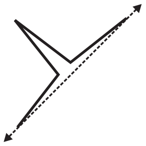
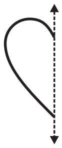
Q.3. What is the shape obtained at the center when you unfold the paper?





Sol. (a) (iii) (b) (ii)

Q.4. Draw the other half of each symmetrical shape.

(a)

(b)

(c)

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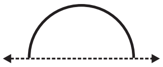
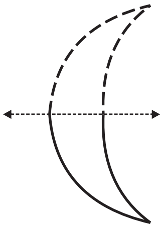
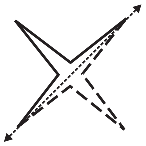
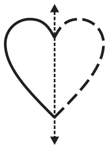
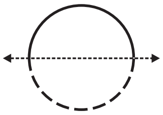
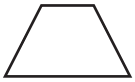
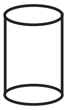
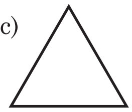
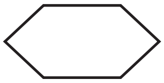
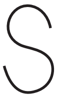
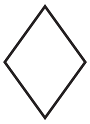
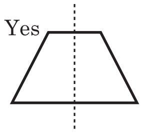


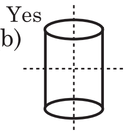
Sol.
(a)

(b)

(c)

(d)


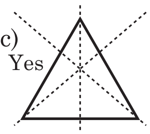
Must Practice Exercise 9

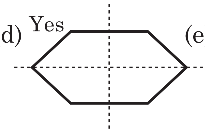
Q.1. Following pictures are symmetric or not? Identify and draw symmetrical lines :

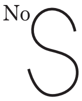
(a)

(b)

(c)

(d)

(e)

(f)


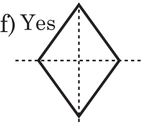
Sol.
(a)


(b)


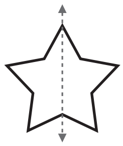
(c)


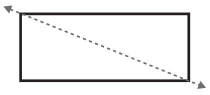
(d)


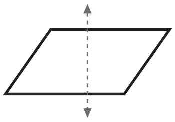
(e)


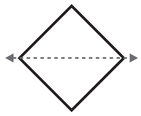
(f)


Q.2. Is the dotted line on each shape a line of symmetry? Write yes or no :

(a)


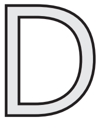
(b)


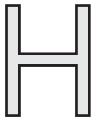
(c)


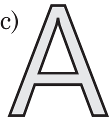
(d)


Sol. (a) Yes (b) No (c) No (d) Yes

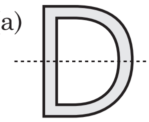
Q.3. Draw a line of symmetry :

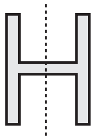
(a)


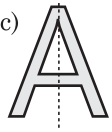
(b)


(c)


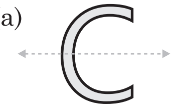
Sol.

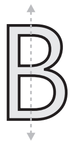
(a)


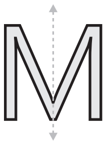
(b)


(c)


Q.4. Is the dotted line on each letter a line of symmetry? Write yes or no :

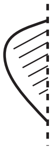
(a)


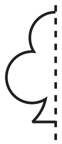
(b)


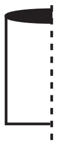
(c)


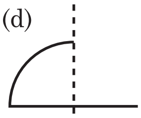
Sol. (a) Yes (b) No (c) Yes

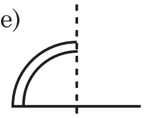
Q.5. Complete the pictures given below on symmetrical lines :

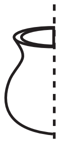
(a)


(b)


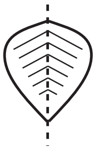
(c)


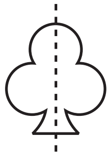
(d)


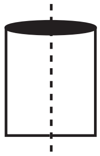
(e)


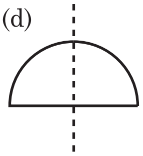
(f)


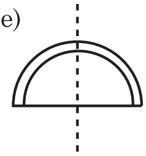
Sol.

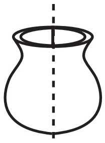
(a)


(b)


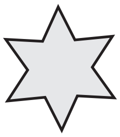
(c)


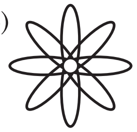
(d)


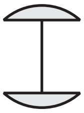
(e)


(f)


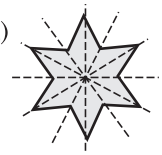
Q.6. Draw all possible symmetrical lines in the shapes given below :

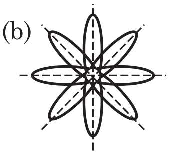
(a)


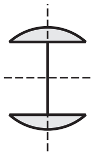
(b)


(c)


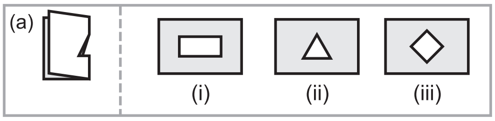
Sol.

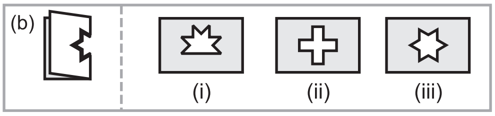
(a)


(b)


(c)


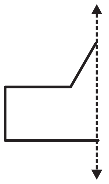
Q.7. What is the shape obtained at the center when you unfold the paper?

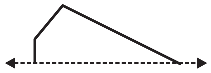


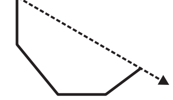


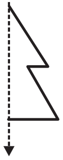
Sol. (a) (ii) (b) (iii)

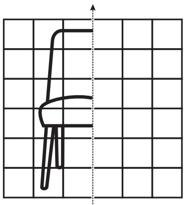
Q.8. Draw the other half of each symmetrical shape :

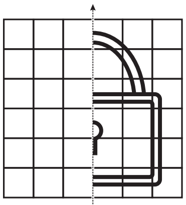
(a)


(b)


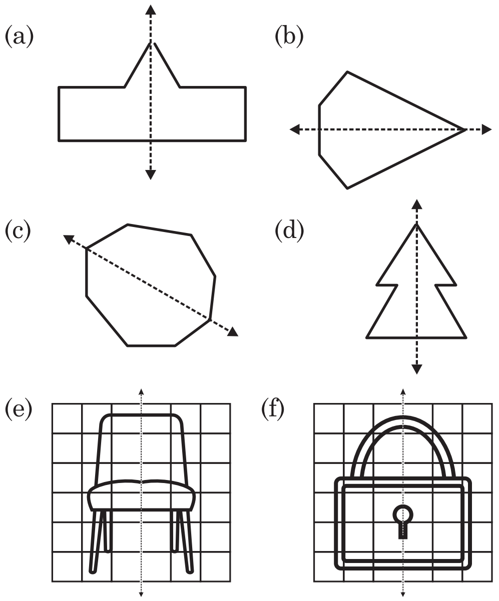
(c)


(d)


(e)


(f)


Sol.

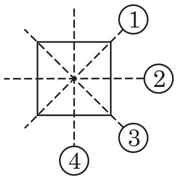


Click Type Questions 9

Q.1. How many lines of symmetries are there in a square?

(a) 1 (b)2 (c) 3 (d) 4

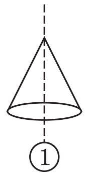
Sol. (d)



Q.2. How many lines of symmetries are there in a cone?

(a) 1 (b) 2 (c) 3 (d) 4

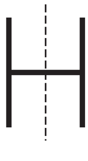
Sol. (a)



Q.3. A letter 'H' has _______ lines of symmetry?

(a) 1 (b) 2 (c) 3 (d) 4

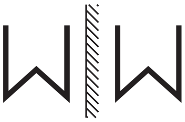
Sol. (b)



Q.4. The mirror image of 'W', when the mirror is place Vertically is ___________ .

(a) U (b) W (c) V (d) M

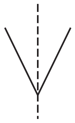
Sol. (b)



Q.5. Which of the following letters have reflection line of symmetry about vertical mirror ?

(a) C (b) B (c) V (d) Q

Sol. (c)



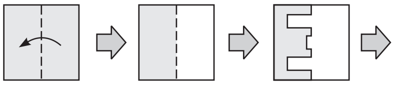
Q.6. Which letter of alphabet does not have any line of symmetry.

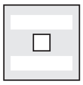
(a) A (d) D (c) N (d) M

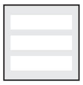
Sol. (c) N

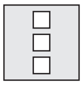
Observe the following cases of paper folding and cutting. Choose the correct pattern which you shall obtain on unfolding the paper from the given possible patterns (a), (b), (c) and (d) :

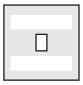
Q.7




(a)

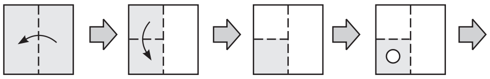

(b)

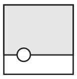

(c)

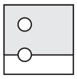

(d)

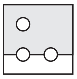
Sol. (d)

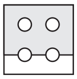
Q.8.




(a)


(b)


(c)


(d)

Sol. (d)

Chapter-10 Multiplication

Exercise 10.1

Q.1. Find the product :

(a) $$\begin{array}{r} \square\square\square\square \\ 67 \\ \times 2 \\ \hline \\ \hline \end{array}$$

(b) $$\begin{array}{r} \square\square\square\square \\ 743 \\ \times 5 \\ \hline \\ \hline \end{array}$$

(c) $$\begin{array}{r} \square\square\square\square \\ 4873 \\ \times 2 \\ \hline \\ \hline \end{array}$$

(d) $$\begin{array}{r} \square\square\square\square \\ 968 \\ \times 5 \\ \hline \\ \hline \end{array}$$

(e) $$\begin{array}{r} \square\square\square\square \\ 2646 \\ \times 28 \\ \hline \\ \hline \end{array}$$

(f) $$\begin{array}{r} \square\square\square\square \\ 2537 \\ \times 6 \\ \hline \\ \hline \end{array}$$

Sol. (a) $$\begin{array}{r} 67 \\ \times 2 \\ \hline 134 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 743 \\ \times 5 \\ \hline 3715 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 4873 \\ \times 2 \\ \hline 9746 \\ \hline \end{array}$$

(d) $$\begin{array}{r} 968 \\ \times 5 \\ \hline 4840 \\ \hline \end{array}$$

(e) $$\begin{array}{r} 2646 \\ \times 28 \\ \hline 21168 \\ 5292\times \\ \hline 74088 \\ \hline \end{array}$$

(f) $$\begin{array}{r} 2537 \\ \times 6 \\ \hline 15222 \\ \hline \end{array}$$

Q.2. Fill in the blanks :

(a) 9871 × .... = 0

(b) 2789 × .... = 928 × 2789

(c) 138 × (413 × 644) = (138 × ....) × 644

(d) 527 × (25 + ...) = 527 × 25 + 527 × 68

(e) 158 × .... = 158 (f) 372 × .... = 0

(g) .... × 1 = 264 (h) 1 × .... = 809

Sol. (a) 0 (b) 928 (c) 413 (d) 68

(e) 1 (f) 0 (g) 264 (h) 809

Q. 3. Find the product :

(a) 67 × 10 (b) 486 × 100 (c) 829 × 1000

Sol. (a) $$\begin{array}{r} 67 \\ \times 10 \\ \hline 00 \\ 67\times \\ \hline 670 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 486 \\ \times 100 \\ \hline 000 \\ 000\times \\ 486\times\times \\ \hline 48600 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 829 \\ \times 1000 \\ \hline 000 \\ 000\times \\ 000\times\times \\ 829\times\times\times \\ \hline 829000 \\ \hline \end{array}$$

Q.4. Find the product :

(a) 91 × 30 (b) 3122 × 400

(c) 98 × 5000

Sol. (a) $$\begin{array}{r} 91 \\ \times 30 \\ \hline 00 \\ 273\times \\ \hline 2730 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 3122 \\ \times 400 \\ \hline 0000 \\ 0000\times \\ 12488\times\times \\ \hline 1248800 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 98 \\ \times 5000 \\ \hline 000 \\ 000\times \\ 490\times\times \\ 490000 \\ \hline \\ \hline \end{array}$$

Q.5. Find the product :

(a) 40 × 30 × 50 (b) 150 × 10 × 50

(c) 120 × 10 × 20

Sol. (a) $$\begin{array}{r} 40 \\ \times 30 \\ \hline 00 \\ 120\times \\ \hline 1200 \\ \times 50 \\ \hline 0000 \\ 6000\times \\ \hline 60000 \end{array}$$

(b) $$\begin{array}{r} 150 \\ \times 10 \\ \hline 000 \\ 150\times \\ \hline 1500 \\ \times 50 \\ \hline 0000 \\ 7500\times \\ \hline 75000 \end{array}$$

(c) $$\begin{array}{r} 120 \\ \times 10 \\ \hline 000 \\ 120\times \\ \hline 1200 \\ \times 20 \\ \hline 0000 \\ 2400\times \\ \hline 24000 \end{array}$$

Exercise 10.1

Q.1. Find the product :

(a) $$\begin{array}{r} 327 \\ \times 58 \\ \hline \\ \hline \end{array}$$

(b) $$\begin{array}{r} 496 \\ \times 75 \\ \hline \\ \hline \end{array}$$

(c) $$\begin{array}{r} 478 \\ \times 264 \\ \hline \\ \hline \end{array}$$

(d) $$\begin{array}{r} 329 \\ \times 148 \\ \hline \\ \hline \end{array}$$

(e) $$\begin{array}{r} 1269 \\ \times 341 \\ \hline \\ \hline \end{array}$$

(f) $$\begin{array}{r} 2408 \\ \times 124 \\ \hline \\ \hline \end{array}$$

(g) $$\begin{array}{r} 2368 \\ \times 248 \\ \hline \\ \hline \end{array}$$

(h) $$\begin{array}{r} 1786 \\ \times 420 \\ \hline \\ \hline \end{array}$$

Sol. (a) $$\begin{array}{r} 327 \\ \times 58 \\ \hline 2616 \\ 1635\times \\ \hline 18966 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 496 \\ \times 75 \\ \hline 2480 \\ 3472\times \\ \hline 37200 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 478 \\ \times 264 \\ \hline 1912 \\ 2868\times \\ 956\times\times \\ \hline 126192 \\ \hline \end{array}$$

(d) $$\begin{array}{r} 329 \\ \times 148 \\ \hline 2632 \\ 1316\times \\ 329\times \\ \hline 48692 \\ \hline \end{array}$$

(e) $$\begin{array}{r} 1269 \\ \times 341 \\ \hline 1269 \\ 5076\times \\ 3809\times \\ \hline 432729 \\ \hline \end{array}$$

(f) $$\begin{array}{r} 2408 \\ \times 124 \\ \hline 9632 \\ 4816\times \\ 2408\times \\ \hline 298592 \\ \hline \end{array}$$

(g) $$\begin{array}{r} 2368 \\ \times 248 \\ \hline 18944 \\ 9472\times \\ 4736\times \\ \hline 587264 \\ \hline \end{array}$$

(h) $$\begin{array}{r} 1786 \\ \times 420 \\ \hline 0000 \\ 3572\times \\ 7144\times \\ \hline 750120 \\ \hline \end{array}$$

Q.2. Multiply the following :

(a) 648 × 27 (b) 2936 × 98

(c) 3134 × 276 (d) 892 × 378

(e) 713 by 965 (f) 654 by 827

(g) 2879 by 306 (h) 1914 by 703

Sol. (a) $$\begin{array}{r} 648 \\ \times 27 \\ \hline 4536 \\ 1296\times \\ \hline 17496 \\ \hline \end{array}$$

(b) $$\begin{array}{r} 2936 \\ \times 98 \\ \hline 23488 \\ 26424\times \\ \hline 287728 \\ \hline \end{array}$$

(c) $$\begin{array}{r} 3134 \\ \times 276 \\ \hline 18804 \\ 21938\times \\ 6268\times\times \\ \hline 864984 \\ \hline \end{array}$$

(d) $$\begin{array}{r} 892 \\ \times 378 \\ \hline 7136 \\ 6244\times \\ 2676\times\times \\ \hline 337176 \\ \hline \end{array}$$

(e) $$\begin{array}{r} 713 \\ \times 965 \\ \hline 3565 \\ 4278\times \\ 6417\times\times \\ \hline 688045 \\ \hline \end{array}$$

(f) $$\begin{array}{r} 654 \\ \times 827 \\ \hline 4578 \\ 1308\times \\ 5232\times\times \\ \hline 540858 \\ \hline \end{array}$$

(g) $$\begin{array}{r} 2879 \\ \times 306 \\ \hline 17274 \\ 0000\times \\ 8637\times\times \\ \hline 880974 \\ \hline \end{array}$$

(h) $$\begin{array}{r} 1914 \\ \times 703 \\ \hline 5742 \\ 0000\times \\ 13398\times\times \\ \hline 1345542 \\ \hline \end{array}$$

Exercise 10.3

Q.1. A pearl necklace has 52 pearls. How many pearls are there in 7 necklaces ?

Sol. Pearls in a necklace = 52

Total necklace = 7

Total pearls in 7 necklace = 52 × 7

= 364

$$\begin{array}{r} 52 \\ \times 7 \\ \hline 364 \\ \hline \end{array}$$

Hence, the total pearls are 364.

Q.2. Number of roses needed for a garland is 72. Calculate the number of roses needed for 9 garlands.

Sol. Roses in one garland = 72

Total garlands = 9

Total roses = 72 × 9

= 648

$$\begin{array}{r} 72 \\ \times 9 \\ \hline 648 \\ \hline \end{array}$$

Hence, the total roses are 648.

Q.3. Rajeev saves ₹ 87 per day. How much money will he save in 3 years, when there is no leap year ?

Sol. Per day saving = ₹ 87

Total time = 3 years

= 3 × 365 days

= 1095 days

Total saving = 1095 × 87

= ₹ 95265

$$\begin{array}{r} 1095 \\ \times 87 \\ \hline 7665 \\ 8760\times \\ \hline 95265 \\ \hline \end{array}$$

Hence, total saving are ₹ 95265

Q.4. The weight of a packet is 485 grams. What is the total weight of 54 such packets ?

Sol. Weight of one packet = 486 grams

Total packet = 54 packets

Total weight = 485 × 54

= 26190

$$\begin{array}{r} 485 \\ \times 54 \\ \hline 1940 \\ 2425\times \\ \hline 26190 \\ \hline \end{array}$$

Hence, total weight is 26190 grams.

Q.5. A printer costs ₹ 1685. What is the cost of 32 such printers ?

Sol. Cost of printer = ₹1685

Total printer = 32

Total cost = ₹ 1685 × 32

= ₹ 53920

$$\begin{array}{r} 1685 \\ \times 32 \\ \hline 3370 \\ 5055\times \\ \hline 53920 \\ \hline \end{array}$$

Hence, total cost is ₹ 53920.

Q.6. A bag contains 367 marbles. How many marbles are there in 258 bags ?

Sol. Marbles in bag = 367

Total bags = 258

Total marbles in bags

= 367 × 258

= 94686

$$\begin{array}{r} 3\ 6\ 7 \\ \times\ 2\ 5\ 8 \\ \hline 2\ 9\ 3\ 6 \\ 1\ 8\ 3\ 5\ \times \\ 7\ 3\ 4\ \times\ \times \\ \hline 9\ 4\ 6\ 8\ 6 \\ \hline \end{array}$$

Hence, total marbles are 94686

Q.7. A packet contains 876 toffees. How many toffees are there in 564 packets ?

Sol. Toffees in a packet = 876

Total packets = 564

Total toffees = 876 × 564

= 494064

$$\begin{array}{r} 8\ 7\ 6 \\ \times\ 5\ 6\ 4 \\ \hline 3\ 5\ 0\ 4 \\ 5\ 2\ 5\ 6\ \times \\ 4\ 3\ 8\ 0\ \times\ \times \\ \hline 4\ 9\ 4\ 0\ 6\ 4 \\ \hline \end{array}$$

Hence, total toffee are 494064.

Q.8. The distance travelled by train in one hour is 182 km. How far it can travel in 235 hours ?

Sol. Distance covered in one have = 182 km

Total time for travelling

= 235 hrs.

Total distance covered

= 182 × 235

= 42770 km

$$\begin{array}{r} 1\ 8\ 2 \\ \times\ 2\ 3\ 5 \\ \hline 9\ 1\ 0 \\ 5\ 4\ 6\ \times \\ 3\ 6\ 4\ \times\ \times \\ \hline 4\ 2\ 7\ 7\ 0 \\ \hline \end{array}$$

Hence, total distance covered is 42770 km.

Must Practice Exercise-10

Q.1. Find the product :

(a) 67 × 6 (b) 95 × 5

(c) 725 × 7 (d) 506 × 7

(e) 59 × 43 (f) 58 × 56

Sol. (a)
$$\begin{array}{r} 6\ 7 \\ \times\ 6 \\ \hline 4\ 0\ 2 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 9\ 5 \\ \times\ 5 \\ \hline 4\ 7\ 5 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 7\ 2\ 5 \\ \times\ 7 \\ \hline 5\ 0\ 7\ 5 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 7\ 2\ 5 \\ \times\ 7 \\ \hline 5\ 0\ 7\ 5 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 5\ 0\ 6 \\ \times\ 7 \\ \hline 3\ 5\ 4\ 2 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 5\ 9 \\ \times\ 4\ 3 \\ \hline 1\ 7\ 7 \\ 2\ 3\ 6\ \times \\ \hline 2\ 5\ 3\ 7 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 5\ 8 \\ \times\ 5\ 6 \\ \hline 3\ 4\ 8 \\ 2\ 9\ 0\ \times \\ \hline 3\ 2\ 4\ 8 \\ \hline \end{array}$$

Q.2. Multiply :

(a) 66 × 100 (b) 705 × 10

(c) 3 × 1000 (d) 500 × 10

(e) 8 × 1000 (f) 7 × 100

Sol. (a) 66 × 100 = 6600 = 6600

(b) 705 × 10 = 705 0 = 7050

(c) 3 × 1000 = 3000 = 3000

(d) 500 × 10 = 5000 = 5000

(e) 8 × 1000 = 8000 = 8000

(f) 7 × 100 = 700 = 700

Q.3. Multiply :

(a) 27 × 40 (b) 65 × 90

(c) 452 × 70 (d) 535 × 60

Sol. (a)
$$\begin{array}{r} 2\ 7 \\ \times\ 4\ 0 \\ \hline 0\ 0 \\ 1\ 0\ 8\ \times \\ \hline 1\ 0\ 8\ 0 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 6\ 5 \\ \times\ 9\ 0 \\ \hline 0\ 0 \\ 5\ 8\ 5\ \times \\ \hline 5\ 8\ 5\ 0 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 4\ 5\ 2 \\ \times\ 7\ 0 \\ \hline 0\ 0\ 0 \\ 3\ 1\ 6\ 4\ \times \\ \hline 3\ 1\ 6\ 4\ 0 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 5\ 3\ 5 \\ \times\ 6\ 0 \\ \hline 0\ 0\ 0 \\ 3\ 2\ 1\ 0\ \times \\ \hline 3\ 2\ 1\ 0\ 0 \\ \hline \end{array}$$

Q.4. Fill in the blanks :

(a) 26 × 45 = _______ × 26

(b) _______ × 6489 = 6489 × 123

(c) (5 × 6) × 7 = 5 × (_______ × 7)

(d) _____ × (246 × 379) = (463 × 246) × 379

(e) 8647 × _______ = 574 × 8647

(f) _______ × (57 × 84) = (1234 × 57) × 84

(g) 279 × 564 = 564 × _______

(h) 1691 × _______ = 1691

(i) 49 × 1 = _______ (j) 9643 × _______ = 0

Sol. (a) 45 (b) 123 (c) 6 (d) 463

(e) 574 (f) 1234 (g) 279 (h) 1

(i) 49 (j) 0

Q.5. Find the product :

(a) 108 × 68 (b) 907 × 19

(c) 650 × 66 (d) 6347 × 638

(e) 6683 × 852 (f) 3328 × 887

(g) 2195 × 379 (h) 8167 × 294

Sol. (a)
$$\begin{array}{r} 1\ 0\ 8 \\ \times\ 6\ 8 \\ \hline 8\ 6\ 4 \\ 6\ 4\ 8\ \times \\ \hline 7\ 3\ 4\ 4 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 9\ 0\ 7 \\ \times\ 1\ 9 \\ \hline 8\ 1\ 6\ 3 \\ 9\ 0\ 7\ \times \\ \hline 1\ 7\ 2\ 3\ 3 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 6\ 5\ 0 \\ \times\ 6\ 6 \\ \hline 3\ 9\ 0\ 0 \\ 3\ 9\ 0\ 0\ \times \\ \hline 4\ 2\ 9\ 0\ 0 \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 6\ 3\ 4\ 7 \\ \times\ 6\ 3\ 8 \\ \hline 5\ 0\ 7\ 7\ 6 \\ 1\ 9\ 0\ 4\ 1\ \times \\ 3\ 8\ 0\ 8\ 2\ \times\ \times \\ \hline 4\ 0\ 4\ 9\ 3\ 8\ 6 \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 6\ 6\ 8\ 3 \\ \times\ 8\ 5\ 2 \\ \hline 1\ 3\ 3\ 6\ 6 \\ 3\ 3\ 4\ 1\ 5\ \times \\ 5\ 3\ 4\ 6\ 4\ \times\ \times \\ \hline 5\ 6\ 9\ 3\ 9\ 1\ 6 \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 3\ 3\ 2\ 8 \\ \times\ 8\ 8\ 7 \\ \hline 2\ 3\ 2\ 9\ 6 \\ 2\ 6\ 6\ 2\ 4\ \times \\ 2\ 6\ 6\ 2\ 4\ \times\ \times \\ \hline 2\ 9\ 5\ 1\ 9\ 3\ 6 \\ \hline \end{array}$$

(g)
$$\begin{array}{r} 2\ 1\ 9\ 5 \\ \times\ 3\ 7\ 9 \\ \hline 1\ 9\ 7\ 5\ 5 \\ 1\ 5\ 3\ 6\ 5\ \times \\ 6\ 5\ 8\ 5\ \times\ \times \\ \hline 8\ 3\ 1\ 9\ 0\ 5 \\ \hline \end{array}$$

(h)
$$\begin{array}{r} 8\ 1\ 6\ 7 \\ \times\ 2\ 9\ 4 \\ \hline 3\ 2\ 6\ 6\ 8 \\ 7\ 3\ 5\ 0\ 3\ \times \\ 1\ 6\ 3\ 3\ 4\ \times\ \times \\ \hline 2\ 4\ 0\ 1\ 0\ 9\ 8 \\ \hline \end{array}$$

Q.6. Solve the following :

(a) 485 sugarcane bundles are loaded in a cart. How many bundles are loaded in 7 carts ?

(b) The cost of an iron box is ₹565. Find the cost of 8 iron boxes.

(c) One quire of paper contains 24 sheets. How many sheets are there in 36 quires?

(d) How many hours there in the month of July ?

(e) A dealer buys 285 bicycles. Each bicycle costs him ₹ 3665. How much does he pay ?

(f) The tour fee for one student is ₹ 1658. Find out the tour fee for 284 students.

Sol. (a) Sugarcane bundles in one cart = 485

Total carts = 7

Total bundles = 485 × 7

= 3395

$$\begin{array}{r} 4\ 8\ 5 \\ \times\ \ 7 \\ \hline 3\ 3\ 9\ 5 \\ \hline \end{array}$$

Hence, total bundles are 3395

(b) Cost of an iron box = ₹ 565

Total iron = 8

Total cost = ₹ 565 × 8

= ₹ 4520

$$\begin{array}{r} 5\ 6\ 5 \\ \times\ 8 \\ \hline 4\ 5\ 2\ 0 \\ \hline \end{array}$$

Hence, total is ₹ 4520.

(c) Sheets in one quire = 24

Total quires = 36

Total sheets = 36 × 24

= 864

$$\begin{array}{r} 3\ 6 \\ \times\ 2\ 4 \\ \hline 1\ 4\ 4 \\ 7\ 2\ \times \\ \hline 8\ 6\ 4 \\ \hline \end{array}$$

Hence, total sheets are 864.

(d) No. of days in July = 31 days

Hours in one day = 24 hours

Total hours = 31 × 24

= 744 hours

$$\begin{array}{r} 3\ 1 \\ \times\ 2\ 4 \\ \hline 1\ 2\ 4 \\ 6\ 2\ \times \\ \hline 7\ 4\ 4 \\ \hline \end{array}$$

Hence, total hours are 744 hours.

(e) Bicycles purchased = 285

cost of one bicycle = ₹ 3565

Total cost = 3665 × 285

= ₹ 1044525

$$\begin{array}{r} 3\ 6\ 6\ 5 \\ \times\ 2\ 8\ 5 \\ \hline 1\ 8\ 3\ 2\ 5 \\ 2\ 9\ 3\ 2\ 0\ \times \\ 7\ 3\ 3\ 0\ \times\ \times \\ \hline 1\ 0\ 4\ 4\ 5\ 2\ 5 \\ \hline \end{array}$$

Hence, total cost of bicycles is ₹ 1044525.

(f) Tour fee for one student = ₹ 1658

Total students = 284

Total fee = 1658 × 284

= ₹ 470872

$$\begin{array}{r} 1\ 6\ 5\ 8 \\ \times\ 2\ 8\ 4 \\ \hline 6\ 6\ 3\ 2 \\ 1\ 3\ 2\ 6\ 4\ \times \\ 3\ 3\ 1\ 6\ \times\ \times \\ \hline 4\ 7\ 0\ 8\ 7\ 2 \\ \hline \end{array}$$

Hence, total fee is ₹ 470872

Click Type Questions

Tick (✔) the correct answer :

Q.1. Multiplicand × Multiplier = ________.

(a) quotient (b) product

(c) sum (d) none

Sol. (b) Product = Multiplicand × Multiplier

Q.2. 1425 × 28 = ________.

(a) 39990 (b) 39900

(c) 99300 (d) none

Sol. (b)

$$\begin{array}{r} 1\,4\,2\,5 \\ \times\ 2\,8 \\ \hline 1\,1\,4\,0\,0 \\ 2\,8\,5\,0\,\times \\ \hline 3\,9\,9\,0\,0 \\ \hline \end{array}$$

Q.3. 89 × 900 = ________.

(a) 80010 (b) 80100

(c) 80001 (d) none

Sol. (b)

$$\begin{array}{r} 9\,0\,0 \\ \times\ 8\,9 \\ \hline 8\,1\,0\,0 \\ 7\,2\,0\,0\,\times \\ \hline 8\,0\,1\,0\,0 \\ \hline \end{array}$$

Q.4. 636 × 100 = 636 × 2 × ________. The missing number is :

(a) 20 (b) 25

(c) 50 (d) 100

Sol. (c) $636 \times \underset{②\ \ ㊿}{\textcircled{100}} = 636 \times 2 \times \textcircled{50}$

Q.5. Which of the following does not equal to 1800 ?

(a) 60 × 30 (b) 45 × 40

(c) 90 × 20 (d) 150 × 120

Sol. (d)

$$\begin{array}{r} 6\,0 \\ \times\ 3\,0 \\ \hline 0\,0 \\ 1\,8\,0\,\times \\ \hline 1\,8\,0\,0 \\ \hline \end{array} \qquad \begin{array}{r} 4\,5 \\ \times\ 4\,0 \\ \hline 0\,0 \\ 1\,8\,0\,\times \\ \hline 1\,8\,0\,0 \\ \hline \end{array}$$

$$\begin{array}{r} 9\,0 \\ \times\ 2\,0 \\ \hline 0\,0 \\ 1\,8\,0\,\times \\ \hline 1\,8\,0\,0 \\ \hline \end{array} \qquad \begin{array}{r} 1\,5\,0 \\ \times\ 1\,2\,0 \\ \hline 0\,0\,0 \\ 3\,0\,0 \\ 1\,5\,0\,\times \\ \hline 1\,8\,0\,0\,0 \\ \hline \end{array}$$

Q.6. The product of all odd numbers between 2 and 10 is :

(a) 135 (b) 945

(c) 729 (d) none

Sol. (b) 3 × 5 × 7 × 9 = 15 × 7 × 9

= 15 × 63

= 945

$$\begin{array}{r} 1\,5 \\ \times\ 6\,3 \\ \hline 4\,5 \\ 9\,0\,\times \\ \hline 9\,4\,5 \\ \hline \end{array}$$

Q.7. Which of the following does not equal to 1500 ?

(a) 3 × 500 (b) 300 × 50

(c) 30 × 50 (d) 300 × 5

Sol. (b)

$$\begin{array}{r} 5\,0\,0 \\ \times\ 3 \\ \hline 1\,5\,0\,0 \\ \hline \end{array} \qquad \begin{array}{r} 3\,0\,0 \\ \times\ 5\,0 \\ \hline 0\,0\,0 \\ 1\,5\,0\,0\,\times \\ \hline 1\,5\,0\,0\,0 \\ \hline \end{array}$$

$$\begin{array}{r} 3\,0 \\ \times\ 5\,0 \\ \hline 0\,0 \\ 1\,5\,0\,\times \\ \hline 1\,5\,0\,0 \\ \hline \end{array} \qquad \begin{array}{r} 3\,0\,0 \\ \times\ 5 \\ \hline 1\,5\,0\,0 \\ \hline \end{array}$$

Q.8. If 1 hour = 3600 seconds, then 1 week = ... seconds

(a) 86400 (b) 25200

(c) 604800 (d) none

Sol. (c) 1 hours 3600 seconds

1 week = 7 days

1 day = 24 hours

1 week = 24 × 7 hours

= 168 hours

1 hour = 3600 seconds

168 hours = 3600 × 168

$$\begin{array}{r} 2\,4 \\ \times\ 7 \\ \hline 1\,6\,8 \\ \hline \end{array}$$

$$\begin{array}{r} 3\,6\,0\,0 \\ \times\ 1\,6\,8 \\ \hline 2\,8\,8\,0\,0 \\ 2\,1\,6\,0\,0\,\times \\ 3\,6\,0\,0\,\times\,\times \\ \hline 6\,0\,4\,8\,0\,0 \\ \hline \end{array}$$

Chapter-11 Division

Exercise 11.1

Q.1. Divide the following numbers, write the remainder if any :

(a) 86 ÷ 2 (b) 99 ÷ 3

(c) 121 ÷ 7 (d) 286 ÷ 4

(e) 5232 ÷ 6 (f) 8540 ÷ 7

(g) 8348 ÷ 6 (h) 6205 ÷ 7

(i) $31\overline{)1\,6\,2}$ (j) $17\overline{)5\,6}$

(k) $77\overline{)4\,6\,8}$ (j) $98\overline{)5\,8\,8}$

Sol. (a)

$$\begin{array}{r} 2\overline{)8\,6}(43 \\ \underline{8} \\ 6 \\ \underline{6} \\ \times \end{array}$$

(b)

$$\begin{array}{r} 3\overline{)9\,9}(33 \\ \underline{9} \\ 9 \\ \underline{9} \\ \times \end{array}$$

(c) 7)1 2 1(17
7
5 1
4 9
2

(d) 4)2 8 6(71
2 8
6
4
2

(e) 6)5 2 3 2(872
4 8
4 3
4 2
1 2
1 2
×

(f) 7)8 5 4 0(1220
7
1 5
1 4
1 4
1 4
0
0
×

(g) 6)8 3 4 8(139
6
2 3
1 8
5 4
5 4
8
– 6
2

(h) 7)6 2 0 5(886
5 6
6 0
5 6
4 5
4 2
3

(i) 31)1 6 2(5
1 5 5
7

(j) 17)5 6(3
5 1
5

(k) 77)4 6 8(6
4 6 2
6

(l) 98)5 8 8(6
5 8 8
×

Q.2. Find the missing number :

(a) 390 ÷ N = 26 N = ______
(b) N ÷ 35 = 34 N = ______
(c) N ÷ 18 = 39 N = ______
(d) 240 ÷ N = 20 N = ______
(e) 504 ÷ N = 18 N = ______
(f) 165 ÷ N = 15 N = ______

Sol. (a) $\frac{390}{N} = 26 \Rightarrow N = \frac{390}{26}$

26)3 9 0(15
2 6
1 3 0
1 3 0
×

$\boxed{N = 15}$

(b) $\frac{N}{35} = 34 \Rightarrow N = 35 \times 34$

3 5
× 3 4
1 4 0
1 0 5 ×
1 1 9 0

$\boxed{N = 1190}$

(c) $\frac{N}{18} = 39 \Rightarrow N = 39 \times 18$

3 9
× 1 8
3 1 2
3 9 ×
7 0 2

$\boxed{N = 702}$

(d) $\frac{240}{N} = 20 \Rightarrow N = \frac{240}{20}$

20)2 4 0(12
2 0
4 0
4 0
×

$\boxed{N = 12}$

(e) $\frac{504}{N} = 18 \Rightarrow N = \frac{508}{18}$

18)5 0 4(28
3 6
1 4 4
1 4 4
×

$\boxed{N = 28}$

(f) $\frac{165}{N} = 15 \Rightarrow N = \frac{165}{15}$

15)1 6 5(11
1 5
1 5
1 5
×

$\boxed{N = 11}$

Q.3. Find the quotient and remainder :

(a) 356 ÷ 10 (b) 989 ÷ 100
(c) 1500 ÷ 100 (d) 90000 ÷ 1000
(e) 7815 ÷ 1000 (f) 10900 ÷ 1000

Sol. (a) ㉟⑥ ÷ 10 $\boxed{R = ⑥}$ $\boxed{Q = ㉟}$

(b) ⑨(89) ÷ 100 $\boxed{Q}$ $\boxed{R}$

(c) ⑮(00) ÷ 100 $\boxed{Q}$ $\boxed{R}$

(d) (90)(000) ÷ 1000 $\boxed{Q}$ $\boxed{R}$

(e) $\underset{\boxed{Q}}{7}\;\underset{\boxed{R}}{815} \div 1000$

(f) $\underset{\boxed{Q}}{10}\;\underset{\boxed{R}}{900} \div 1000$

Q.4. Divide the following and check your answer :

(a) 8624 ÷ 4 (b) 1377 ÷ 3
(c) 1255 ÷ 6 (d) 6012 ÷ 3
(e) 9314 ÷ 3 (f) 1565 ÷ 2
(g) 784 ÷ 33 (h) 4816 ÷ 31

Sol. (a)
$$\begin{array}{l} 4\overline{)8\,6\,2\,4}(2156 \\ \;\;\underline{8} \\ \;\;\;\;6 \\ \;\;\;\;\underline{4} \\ \;\;\;\;2\,2 \\ \;\;\;\;\underline{2\,0} \\ \;\;\;\;\;\;2\,4 \\ \;\;\;\;\;\;\underline{2\,4} \\ \;\;\;\;\;\;\;\;\times \end{array}$$

(b)
$$\begin{array}{l} 3\overline{)1\,3\,7\,7}(459 \\ \;\;\underline{12} \\ \;\;\;\;1\,7 \\ \;\;\;\;\underline{1\,5} \\ \;\;\;\;\;\;2\,7 \\ \;\;\;\;\;\;\underline{2\,7} \\ \;\;\;\;\;\;\;\;\times \end{array}$$

(c)
$$\begin{array}{l} 6\overline{)1\,2\,5\,5}(209 \\ \;\;\underline{1\,2} \\ \;\;\;\;\;\;5\,5 \\ \;\;\;\;\;\;\underline{5\,4} \\ \;\;\;\;\;\;\;\;1 \end{array}$$

(d)
$$\begin{array}{l} 3\overline{)6\,0\,1\,2}(2004 \\ \;\;\underline{6} \\ \;\;\;\;0 \\ \;\;\;\;\underline{0} \\ \;\;\;\;\;\;1\,2 \\ \;\;\;\;\;\;\underline{1\,2} \\ \;\;\;\;\;\;\;\;\times \end{array}$$

(e)
$$\begin{array}{l} 3\overline{)9\,3\,1\,4}(3104 \\ \;\;\underline{9} \\ \;\;\;\;3 \\ \;\;\;\;\underline{3} \\ \;\;\;\;\;\;1\,4 \\ \;\;\;\;\;\;\underline{1\,2} \\ \;\;\;\;\;\;\;\;2 \end{array}$$

(f)
$$\begin{array}{l} 2\overline{)1\,5\,6\,5}(782 \\ \;\;\underline{1\,4} \\ \;\;\;\;1\,6 \\ \;\;\;\;\underline{1\,6} \\ \;\;\;\;\;\;\;\;5 \\ \;\;\;\;\;\;\;\;\underline{4} \\ \;\;\;\;\;\;\;\;1 \end{array}$$

(g)
$$\begin{array}{l} 33\overline{)7\,8\,4}(23 \\ \;\;\;\underline{6\,6} \\ \;\;\;\;\;1\,2\,4 \\ \;\;\;\;\;\underline{1\,9\,9} \\ \;\;\;\;\;\;\;\;2\,5 \end{array}$$

(h)
$$\begin{array}{l} 31\overline{)4\,8\,1\,6}(155 \\ \;\;\;\underline{3\,1} \\ \;\;\;\;1\,7\,1 \\ \;\;\;\;\underline{1\,5\,5} \\ \;\;\;\;\;\;1\,6\,6 \\ \;\;\;\;\;\;\underline{1\,5\,5} \\ \;\;\;\;\;\;\;\;1\,1 \end{array}$$

Q.5. Using the suitable property. Fill in the blanks.

(a) 88088 ÷ 1 = _______
(b) _______ ÷ 1 = 46234
(c) 84278 ÷ _______ = 1
(d) _______ ÷ 72646 = 1
(e) 6666 ÷ 6666 = _______
(f) _______ ÷ 86935 = 0

Sol. (a) 88088 (b) 46234 (c) 84278
(d) 72646 (e) 1 (f) 0

Exercise 11.2

Q.1. 9 saplings are planted in a row. In how many rows are 873 saplings planted?

Sol. Saplings in a row = 9
Total sapling = 873
No. of rows = 873 ÷ 9
= 97

$$\begin{array}{l} 9\overline{)8\,7\,3}(97 \\ \;\;\underline{8\,1} \\ \;\;\;\;6\,3 \\ \;\;\;\;\underline{6\,3} \\ \;\;\;\;\;\;\times \end{array}$$

Hence, total rows are 97.

Q.2. An electrician fixed 4 bulbs in a room. In how many rooms can 216 bulbs be fixed by him?

Sol. Bulbs in a room = 4
Total bulbs = 216
No. of rooms = 216 ÷ 4
= 54

$$\begin{array}{l} 4\overline{)2\,1\,6}(54 \\ \;\;\underline{2\,0} \\ \;\;\;\;1\,6 \\ \;\;\;\;\underline{1\,6} \\ \;\;\;\;\;\;\times \end{array}$$

Hence, total rooms are 54.

Q.3. 6 students can be seated on a bench. How many benches are required for 6264 students?

Sol. Students seated = 6
Total students = 6264
No. of seats = 6264 ÷ 6
= 1044

$$\begin{array}{l} 6\overline{)6\,2\,6\,4}(1044 \\ \;\;\underline{6} \\ \;\;\;\;2\,6 \\ \;\;\;\;\underline{2\,4} \\ \;\;\;\;\;\;2\,4 \\ \;\;\;\;\;\;\underline{2\,4} \\ \;\;\;\;\;\;\;\;\times \end{array}$$

Hence, total seats are 1044.

Q.4. A six storey building has 2292 rooms. If every floor has the same number of rooms, how many rooms are there on each floor?

Sol. Room in six story bulding = 2292
Total storey = 6
No. of room in one storey
= 2292 ÷ 6
= 382

$$\begin{array}{l} 6\overline{)2\,2\,9\,2}(382 \\ \;\;\underline{1\,8} \\ \;\;\;\;4\,9 \\ \;\;\;\;\underline{4\,8} \\ \;\;\;\;\;\;1\,2 \\ \;\;\;\;\;\;\underline{1\,2} \\ \;\;\;\;\;\;\;\;\times \end{array}$$

Hence, total rooms in one storey are 382.

Q.5. A car covers a distance of 7488 km in 48 hours. How much distance does it cover in 1 hour?

Sol. Distance covered = 7448 km
Total time = 48 hours
distance in one hour
= 7488 ÷ 48
= 156 km

$$\begin{array}{l} 48\overline{)7\,4\,8\,8}(156 \\ \;\;\;\underline{4\,8} \\ \;\;\;\;2\,6\,8 \\ \;\;\;\;\underline{2\,4\,0} \\ \;\;\;\;\;\;2\,8\,8 \\ \;\;\;\;\;\;\underline{2\,8\,8} \\ \;\;\;\;\;\;\;\;\;\times \end{array}$$

Hence, total distance covered in one hour = 156 km

Q.6. If a cyclist covers a distance of 1482 km in 57 hours, how much distance does he cover in 1 hour?

Sol. Distance covered = 1402 km

Total time = 57 hours

distance in one hour = 1482 ÷ 57

= 26 km

$$\begin{array}{r} 57\overline{)1482}(26 \\ 114 \\ \hline 342 \\ 342 \\ \hline \times \\ \hline \end{array}$$

Hence, total distance covered in one hour is 26 km

Q.7. 37 boys collected ₹ 16946 for the picnic. If each boy gave equal amount, how much did each contribute?

Sol. Total boys = 37

Money collected = ₹16946

Contribution of each boys

= 16946 ÷ 37

= ₹450

$$\begin{array}{r} 37\overline{)16946}(458 \\ 148 \\ \hline 214 \\ 185 \\ \hline 296 \\ 296 \\ \hline \times \\ \hline \end{array}$$

Hence, each boy contribute ₹ 458

Q.8. A gardener wants to plant 25098 plants in rows. If each row consists of 94 plants, how many rows are formed?

Sol. Plants to be planted = 25098

Plants in one row = 94

Total number of rows

= 25098 ÷ 94

= 267

$$\begin{array}{r} 94\overline{)25098}(267 \\ 188 \\ \hline 629 \\ 564 \\ \hline 658 \\ 658 \\ \hline \times \\ \hline \end{array}$$

Hence, total rows are 267.

Must Practice Exercise-11

Q.1. Divide the following :

(a) 38 ÷ 2	(b) 85 ÷ 2
(c) 456 ÷ 8	(d) 658 ÷ 7
(e) 4624 ÷ 8	(f) 2340 ÷ 9

Sol. (a)
$$\begin{array}{r} 2\overline{)38}(19 \\ 2 \\ \hline 18 \\ 18 \\ \hline \times \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 2\overline{)85}(42 \\ 8 \\ \hline 5 \\ 4 \\ \hline 1 \\ \hline \end{array}$$

(c)
$$\begin{array}{r} 8\overline{)456}(57 \\ 40 \\ \hline 56 \\ 56 \\ \hline \times \\ \hline \end{array}$$

(d)
$$\begin{array}{r} 7\overline{)658}(94 \\ 63 \\ \hline 28 \\ 28 \\ \hline \times \\ \hline \end{array}$$

(e)
$$\begin{array}{r} 8\overline{)4624}(578 \\ 40 \\ \hline 62 \\ 56 \\ \hline 64 \\ 64 \\ \hline \times \\ \hline \end{array}$$

(f)
$$\begin{array}{r} 9\overline{)2390}(265 \\ 18 \\ \hline 59 \\ 54 \\ \hline 50 \\ 45 \\ \hline 5 \\ \hline \end{array}$$

Q.2. Find the missing number :

(a) 754 ÷ N = 29	(b) 420 ÷ N = 30
(c) N ÷ 28 = 39	(d) 891 ÷ N = 33
(e) N ÷ 39 = 14	(f) N ÷ 15 = 26

Sol. (a) $\frac{754}{N} = 29 \Rightarrow N = \frac{754}{29}$

$$\begin{array}{r} 29\overline{)754}(26 \\ 58 \\ \hline 174 \\ 174 \\ \hline \times \\ \hline \end{array} \qquad \boxed{N = 26}$$

(b) $\frac{420}{N} = 30 \Rightarrow N = \frac{420}{30}$

$$\begin{array}{r} 30\overline{)420}(14 \\ 30 \\ \hline 120 \\ 120 \\ \hline \times \\ \hline \end{array} \qquad \boxed{N = 14}$$

(c) $\frac{N}{28} = 39 \Rightarrow N = 39 \times 28$

$$\begin{array}{r} 3\ 9 \\ \times\ 2\ 8 \\ \hline 3\ 1\ 2 \\ 7\ 8\ \times \\ \hline 1\ 0\ 9\ 2 \\ \hline \end{array} \qquad \boxed{N = 1092}$$

(d) $\frac{891}{N} = 33 \Rightarrow N = \frac{891}{33}$

$$\begin{array}{r} 33\overline{)891}(27 \\ 66 \\ \hline 231 \\ 231 \\ \hline \times \\ \hline \end{array} \qquad \boxed{N = 27}$$

(e) $\frac{N}{39} = 14 \Rightarrow N = 14 \times 39$

$$\begin{array}{r} 3\ 9 \\ \times\ 1\ 4 \\ \hline 1\ 5\ 6 \\ 3\ 9\ \times \\ \hline 5\ 4\ 6 \\ \hline \end{array} \qquad \boxed{N = 546}$$

(f) $\frac{N}{15} = 26 \Rightarrow N = 26 \times 15$

$$\begin{array}{r} 2\ 6 \\ \times\ 1\ 5 \\ \hline 1\ 3\ 0 \\ 2\ 6\ \times \\ \hline 3\ 9\ 0 \end{array} \qquad \boxed{N = 390}$$

Q.3. Find the quotient and remainder :

(a) 9600 ÷ 10 (b) 3000 ÷ 10

(c) 586 ÷ 100 (d) 3688 ÷ 100

(e) 400000 ÷ 1000 (f) 506000 ÷ 100

Sol. (a) $\underset{\boxed{Q}}{\textcircled{960}}\overset{\boxed{R}}{\textcircled{0}} \div 10$

(b) $\underset{\boxed{Q}}{\textcircled{300}}\overset{\boxed{R}}{\textcircled{0}} \div 10$

(c) $\overset{\boxed{Q}}{\textcircled{5}}\underset{\boxed{R}}{\boxed{86}} \div 100$

(d) $\underset{\boxed{Q}}{\textcircled{36}}\overset{\boxed{R}}{\textcircled{68}} \div 100$

(e) $\underset{\boxed{Q}}{\textcircled{400}}\overset{\boxed{R}}{\textcircled{000}} \div 1000$

(f) $\underset{\boxed{Q}}{\textcircled{506}}\overset{\boxed{R}}{\textcircled{000}} \div 1000$

Q.4. Divide the following and check your answer :

(a) 9223 ÷ 3 (b) 2442 ÷ 6 (c) 6642 ÷ 8

(d) 2781 ÷ 9 (e) 1266 ÷ 2 (f) 1017 ÷ 5

(g) 4483 ÷ 6 (h) 750 ÷ 30

Sol. (a)
$$\begin{array}{r} 3\overline{)9\,2\,2\,3}(3074 \\ \underline{9} \\ 2\,2 \\ \underline{2\,1} \\ 1\,3 \\ \underline{1\,2} \\ 1 \end{array}$$

(b)
$$\begin{array}{r} 6\overline{)6\,4\,4\,2}(407 \\ \underline{2\,4} \\ 4\,2 \\ \underline{4\,2} \\ \times \end{array}$$

(c)
$$\begin{array}{r} 8\overline{)6\,6\,4\,2}(830 \\ \underline{6\,4} \\ 2\,4 \\ \underline{2\,4} \\ 2 \end{array}$$

(d)
$$\begin{array}{r} 9\overline{)2\,7\,8\,1}(309 \\ \underline{2\,7} \\ 8\,1 \\ \underline{8\,1} \\ \times \end{array}$$

(e)
$$\begin{array}{r} 2\overline{)1\,2\,6\,6}(633 \\ \underline{1\,2} \\ 6 \\ \underline{6} \\ \times \end{array}$$

(f)
$$\begin{array}{r} 5\overline{)1\,0\,1\,7}(203 \\ \underline{1\,0} \\ 1\,7 \\ \underline{1\,5} \\ 2 \end{array}$$

(g)
$$\begin{array}{r} 6\overline{)4\,4\,8\,3}(747 \\ \underline{4\,2} \\ 2\,8 \\ \underline{2\,4} \\ 4\,3 \\ \underline{4\,2} \\ 1 \end{array}$$

(h)
$$\begin{array}{r} 30\overline{)7\,5\,0}(25 \\ \underline{6\,0} \\ 1\,5\,0 \\ \underline{1\,5\,0} \\ \times \end{array}$$

Q.5. By using suitable property, fill in the blanks :

(a) 0 ÷ 88495 = ____________

(b) 48828 ÷ ____________ = 1

(c) ____________ ÷ 1 = 84324

(d) ____________ ÷ 88994 = 0

(e) 41188 ÷ ____________ = 41188

(f) ____________ ÷ 28649 = 1

Sol. (a) 0 (b) 48828

(c) 84324 (d) 0

(e) 1 (f) 28649

Q.6. Solve the following words problems :

(a) If 6 notebooks have 9120 lines, how many lines are there in a notebook?

(d) 98 bags of rice can be loaded in a tempo. How many tempos will be needed to load 3038 such bags?

(c) Mrs. Monika withdrew ₹ 9040 from her bank saving account. The cashier paid her the money in 20-rupee denominations. How many notes did she get?

(d) 79 bags of pulses can be loaded in a wagon. How many wagons will be required for loading 9875 bags?

Sol. (a) Total lines = 9120

Total notebooks = 6

Liner in are notebooks

= 9120 ÷ 6

= 1520

$$\begin{array}{r} 6\overline{)9\,1\,2\,0}(1520 \\ \underline{6} \\ 3\,1 \\ \underline{3\,0} \\ 1\,2 \\ \underline{1\,2} \\ 0 \\ \underline{0} \\ \times \end{array}$$

Hence, total lines in one note book are 1520

(b) Bags in one tampo = 98

Total bags = 3038

No. of tampos = 3038 ÷ 98

= 31

$$\begin{array}{r} 98\overline{)3\,0\,3\,8}(31 \\ \underline{2\,9\,4} \\ 9\,8 \\ \underline{9\,8} \\ \times \end{array}$$

Hence, total 31 tampos are needed.

(c) Total money = ₹9040

Value of one note = ₹ 20

Total notes = ₹ 9040 ÷ ₹ 20
= 452
Hence, she get 452 notes.

20)9 0 4 0(452
8 0
1 04
1 0 0
4 0
4 0
×

(d) Bags in one wagon = 79
Total bagons = 9875 ÷ 79
= 125
Hence, 125 wagons are needed.

79)9875 (125
79
197
158
395
395
×

Click Type Questions

Tick (✔) the correct answer.

Q.1. 11341 ÷ 11 = ?

(a) 131 (b) 1031 (c) 1310 (d) 1301

Sol. (b) 11)1 1 3 4 1(1031
−1 1
3 4
3 3
1 1
1 1
×

Q.2. 10 × 100 × ________ = 100000

(a) 10 (b) 100 (c) 0 (d) 1000

Sol. (b) $10 \times 100 \times \underline{100} = 100000$

Q.3. The product of all odd numbers between 2 and 8 is :

(a) 105 (b) 35 (c) 12 (d) 28

Sol. (a) 3 × 5 × 7
= 15 × 7 = 105

Q.4. The remainder obtained on dividing 600 by 7 is :

(a) 3 (b) 4 (c) 5 (d) 6

Sol. (c) 7)6 0 0(85
5 6
4 0
3 5
5

$\boxed{R = 5}$

Q.5. The number of 3s in the quotient of 4995 ÷ 15 is :

(a) 1 (b) 2
(c) 3 (d) none of these

Sol. (c) 15)4 9 9 5(333
4 5
4 9
4 5
4 5
4 5
×

$\boxed{3s = 3}$

Q.6. Divide the largest 4-digit number by the largest 2-digit number. The quotient obtained is :

(a) 99 (b) 11 (c) 100 (d) 101

Sol. (d) 99)9 9 9 9(101
9 9
9 9
9 9
×

$\boxed{Q = 101}$

Q.7. An office needs 1500 pens in a year. How many boxes of 30 pens each must the school buy?

(a) 50 (b) 500 (c) 300 (d) 450

Sol. (a) Pens in one box = 30
Total pens = 1500
Total boxes = 1500 ÷ 30
= 50

30)1 5 0 0(50
1 5 0
0
0
×

Q.8. A travel agency paid ₹ 86886 as airfare for 18 tickets to travel from Delhi to Jaipur. The cost of one ticket is :

(a) ₹ 4827 (b) ₹ 4287
(c) ₹ 4278 (d) ₹ 4782

Sol. (a) Total tickets = 18
Amount of tickets
= ₹ 86886
Cost of one ticket
=86886 ÷ 18
= ₹4827

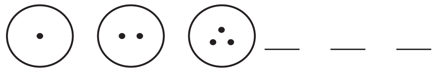
18)8 6 8 8 6(4827
7 2
1 4 8
1 4 4
4 8
3 6
1 2 6
1 2 6
×

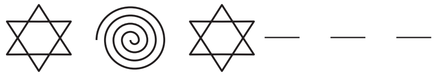
Hence, cost of one ticket is ₹ 4827.

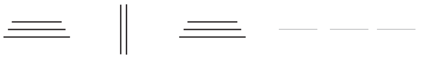
Chapter-12 Patterns

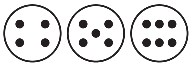
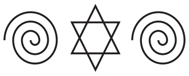
Exercise 12.1

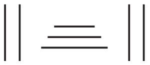
Q.1. Complete the pattern :

(a)


(b)


(c)


Sol. (a)  (b) 

(c) 

Q.2. Write the next three terms in each of the following. :

(a) 95, 90, 85, 80, 75, (b) 1, 4, 9, 16,

(c) 6, 12, 24, 48, (d) 98, 87, 76, 65

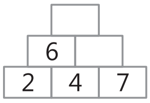
Sol. (a) $\underline{95} - 5 = \underline{90}$, $\underline{90} - 5 = \underline{85}$, $\underline{85} - 5 = \underline{80}$, $\underline{80} - 5 = \underline{75}$, $\underline{75} - 5 = 70$, $\underline{70} - 5 = 65$, $\underline{65} - 5 = 60$

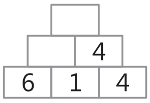
(b) $1^2 = 1$, $2^2 = 4$, $3^2 = 9$, $4^2 = 16$, $5^2 = 25$, $6^2 = 36$, $7^2 = 49$

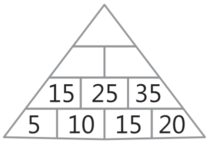
(c) $6 \times 1 = 6$, $6 \times 2 = 12$, $12 \times 2 = 24$, $24 \times 2 = 48$, $48 \times 2 = 96$, $96 \times 2 = 192$, $192 \times 2 = 384$

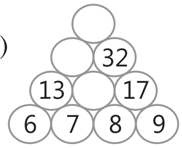
(d) $98 - 11 = 87$, $87 - 11 = 76$, $76 - 11 = 65$, $65 - 11 = 54$, $54 - 11 = 43$, $43 - 11 = 32$

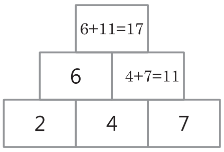
Q.3. Look at the pattern and complete the number towers.

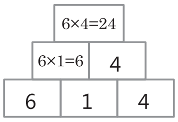
(a) 

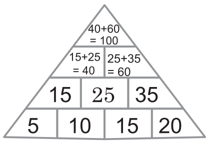
(b) 

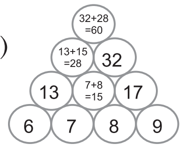
(c) 

(d) 

Sol. (a) 

(b) 

(c) 

(d) 

Q.4. Add three consecutive numbers :

(a) $1 + 2 + 3 = \underline{6 = 3 \times 2}$

(b) $5 + 6 + 7 = \underline{18 = 3 \times 6}$

(c) $6 + 7 + 8 = \underline{21 = 3 \times 7}$

(d) $9 + 10 + 11 = \underline{30 = 3 \times 10}$

What rule do you observe?

$\underline{\text{Sum} = 3 \times \text{middle term}}$

Q.5. Study the following patterns and find the product :

65 × 65 = 4225; 105 × 105; 11025

(a) 75 × 75 (b) 95 × 95

(c) 135 × 135 (d) 175 × 175

Sol. (a) $75 \times 75 = 7 \times (7 + 1) \times 5 \times 5$

$= 7 \times 8 \times 5 \times 5$

$= 5625$

(b) 95 × 95 = 90 25

9 × (9 + 1) → 5 × 5

(c) 135 × 135 = 182 25

13 × (13 + 1) → 5 × 5

(d) 175 × 175 = 306 25

17 × (17 + 1) → 5 × 5

Q.6. Write the following using codes :

(a) FREEDOM (b) HONESTY

(c) COUNTRY

Sol. (a) 06180505041513 (b) 08151405192025

(c) 03152114201825

Q.7. Write the decode for the following codes :

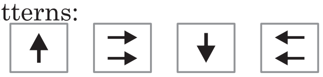
(a) 0801161625 (b) 2008180505

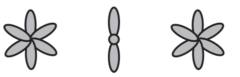
(c) 0904091520

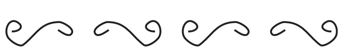
Sol. (a) HAPPY (b) THREE (c) IDIOT

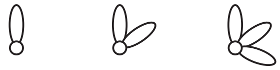
Must Practice Exercise-12

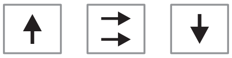
Q.1. Move forward the following Picture Patterns:

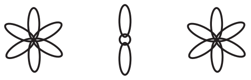
(a)  — — —

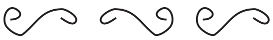
(b)  — — —

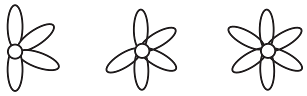
(c)  — — —

(d)  — — —

Sol. (a) 

(b) 

(c) 

(d) 

Q.2. Complete the following number pattern:

(a) 2, 12, 22, 32

(b) 30, 45, 60, 75

(c) 200, 180, 160, 140

(d) 256, 128, 64, 32

(e) 5, 55, 555, 5555

(f) 1, 10, 100, 1000

Sol. (a) 32 + 10 = 42 , 42 + 10 = 52, 52 + 10 = 62

Sol. (b) 75 + 15 = 90, 90 + 15 = 105, 105 + 15 = 120

(c) 140 – 20 = 120, 120 – 20 = 100, 100 – 20 = 80

(d) 32 ÷ 2 = 16, 16 ÷ 2 = 8, 8 ÷ 2 = 4

(e) 55555, 555555, 5555555

(f) 10000, 100000, 1000000

Q.3. Observe the following patterns and extend it for two more steps :

(a) 1 × 9 + 2 = 11

12 × 9 + 3 = 111

123 × 9 + 4 = 1111

Sol. 1234 × 9 + 5 = 11111

12345 × 9 + 6 = 111111

(b) 111 ÷ 3 = 37

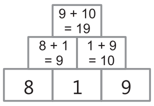
222 ÷ 6 = 37

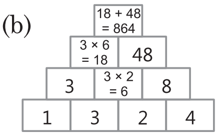
333 ÷ 9 = 37

Sol. 444 ÷ 12 = 37

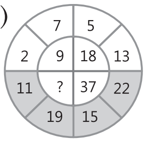
555 ÷ 15 = 37

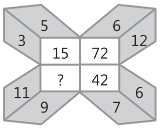
Q.4. Complete the following number towers :

(a) 

(b) 

Q.5. Study the pattern and fill in the missing terms.

(a) 

(b) 

Sol. (a) 11 + 19 = 30 (b) 11 × 9 = 99

Q.6. Add 4 consecutive numbers:

(a) 1 + 2 + 3 + 4 = 10 = 2 × (1 + 4)

(b) 7 + 8 + 9 + 10 = 34 = 2 × (7 + 10)

(c) 3 + 4 + 5 + 6 = 18 = 2 × (3 + 6)

(d) 6 + 7 + 8 + 9 = 30 = 2 × (6 + 9)

What rule do you observe?

Sum = 2 × sum of exterior numbers

Q.7. Study the following patterns and fill in the blanks :

(a) 65 × 65 = 4225 = 6 × 7.5^2

(b) 505 × 505 = 255025 = 50 × 51.5^2

(c) 195 × 195 = 38025 = 19 × 20.5^2

(d) 345 × 345 = 119025 = 34 × 35.5^2

Q.8. Study the patterns and fill in the blanks.

(a) (7 × 7) — (6 × 6) = 7 + 6 = 13

(b) (8 × 8) — (7 × 7) = 8 + 7 = 15

(c) (9 × 9) — (8 × 8) = 9 + 8 = 17

(d) (10 × 10) — (9 × 9) = 10 + 9 = 19

Q.9. Write the following words using the codes.

(a) SAVE WATER (b) BEST OF LUCK

Sol. (a) 19012205 2301200518

(b) 02051920 1506 12210311

Q.10. Write the decode for the following codes :

(a) 02211202 (b) 201516160518

Sol. (a) BULB (b) TOPPER

Click Type Questions

Tick (✔) the correct answer :

Q1. The middle term in the pattern 111 × 111 is :

(a) 4 (b) 3 (c) 2 (d) 5

Sol. (a) (11 × 1111 = 123④321)

Q.2. Next term of the pattern 1 + 2 = 3; 2 + 3 = 5; 3 + 4 = 7 will be :

(a) 12 (b) 15 (c) 9 (d) 17

Sol. (c) 4 + 5 = 9

Q.3. The decoding 08 01 22 05 06 21 14 of the following coding is?

(a) HAVE FUN (b) GOOD

(c) HELLO (d) SURPRISE

Sol. (a)

Q.4. Find the next term of the following pattern :

3 × 37, 037 = 1, 11, 111; 6 × 37, 037 = 2, 22, 222; 9 × 37, 037 = _______

(a) 444444 (b) 333333

(c) 555555 (d) 666666

Sol. (b) 3, 33, 333

Q.5. This increasing number pattern was made using a rule.

28, 35, 42, 49, 56

Which rule could have been used to make this pattern?

(a) add 3 (b) multiply by 3

(c) add 7 (d) multiply by 7

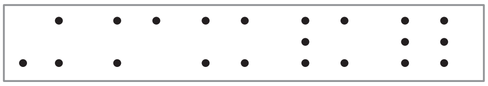
Sol. (c) 28 + 7 = 35

35 + 7 = 42

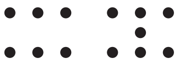
42 + 7 = 49

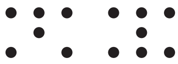
49 + 7 = 56

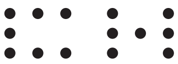
Q.6. The pattern shown below shows an increasing number of dots.

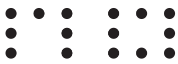


If the pattern continues, what would be the next two figures?

(a) 

(b) 

(c) 

(d) 

Sol. (d) Count dots.

Q7. Ajay is used multiplication and addition to make this number pattern.

2, 7, 22, 67

What rule could Ajay have used for the pattern?

(a) add 5, then multiply by 2

(b) multiply by 4, then add 1

(c) add 3, then multiply by 2

(d) multiply by 3, then add 1

Sol. (d) 2 × 3 + 1 = 7

7 × 3 + 1 = 22

22 × 3 + 1 = 67

Q.8. Monika used a rule to make a number pattern. Her rule is to multiply by 2. Which number pattern follows Monika's rule?

(a) 4, 6, 9, 10, 12 (b) 2, 4, 8, 16, 32

(c) 5, 7, 9, 11, 13 (d) 1, 3, 6, 9, 12

Sol. (b) 2 × 2 = 4

4 × 2 = 8

8 × 2 = 16

16 × 2 = 32

Q.9. Toni used an addition rule to make this number pattern :

3, 7, 11, 15, 19

Which number pattern could be make using the same rule that Toni used?

(a) 2, 5, 8, 11, 14 (b) 4, 8, 12, 16, 20

(c) 5, 8, 11, 14, 17 (d) 1, 3, 6, 9, 12

Sol. (b) Add 4 to each term

4 + 4 = 9, 8 + 4 = 12 , 12 + 4 = 16, 16 + 4 = 20

Q.10. A subtraction rule was used to make the pattern of numbers in the table.

31, 29, 27, 25, ?, ?

If the pattern continues, what would be the next two numbers?

(a) 25, 27 (b) 23, 21

(c) 21, 19 (d) 24, 25

Sol. (b) Subtract 2 each term

25 – 2 = 23, 23 – 2 = 21

Chapter-13 Fractions

Exercise 13.1

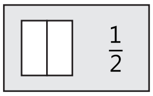
Q.1. Write the fractions that tell the following information :

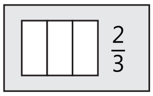
(a) Count two of five equal parts

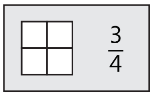
(b) Count eleven of twelve equal parts

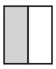
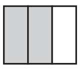
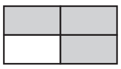
Sol. (a) $\frac{2}{5}$ (b) $\frac{11}{12}$

Q.2. Shade the following figures as directed :

(a) 

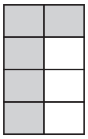
(b) 

(c) 

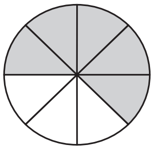
Sol. (a)  (b)  (c) 

Q.3. Write the fraction of each shape is shaded ?

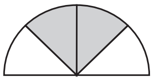
(a)



(b)



(c)



Sol. (a) $\frac{5}{8}$ (b) $\frac{5}{8}$ (c) $\frac{2}{4}$

Q.4. Make a fraction where :

(a) Numerator = 4
Denominator = 5

(b) Numerator = 3
Denominator = 7

(c) Numerator = 6
Denominator = 11

(d) Numerator = 5
Denominator is double of numerator

Sol. (a) $\frac{4}{5}$ (b) $\frac{3}{7}$ (c) $\frac{6}{11}$ (d) $\frac{5}{10}$

Q.5. Fill in the blanks :

(a) $\frac{2}{3}$ is written as ______________.

(b) $\frac{1}{4}$ is called ______________.

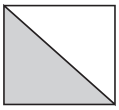
(c) One-fifth is also written as _________.

(d) ___________ one-thirds make a whole.

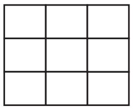
Sol. (a) Two-third (b) One-fourth
(c) 1/5 (d) Three

Q.6. Write the fractions for the shaded parts :

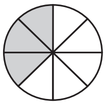
(a)



(b)



(c)



Sol. (a) $\frac{1}{2}$ (b) $\frac{0}{9}$ (c) $\frac{3}{8}$

Q.7. Use the cross multiplying method to find if the following fractions are equivalent or not ?

(a) $\frac{2}{3}, \frac{8}{12}$ (b) $\frac{2}{3}, \frac{42}{54}$ (c) $\frac{2}{4}, \frac{6}{12}$

Sol. (a) $\frac{2}{3} \times \frac{8}{12} \Rightarrow 2 \times 12 = 3 \times 8$

$\Rightarrow 24 = 24$ (Equivalent)

(b) $\frac{2}{3} \times \frac{42}{54} \Rightarrow 2 \times 54 = 3 \times 42$

$\Rightarrow 108 = 126$
(Not equivalent)

(c) $\frac{3}{4} \times \frac{6}{12} \Rightarrow 3 \times 12 = 4 \times 6$

$\Rightarrow 36 = 24$
(Not equivalent)

Q.8. Fill in the blanks space for the following equivalent fractions :

(a) $\frac{1}{6} = \frac{7}{\square}$ (b) $\frac{10}{50} = \frac{\square}{500}$

(c) $\frac{15}{\square} = \frac{3}{4}$ (d) $\frac{36}{\square} = \frac{6}{11}$

Sol. (a) $\frac{1}{6} = \frac{7}{\square} \Rightarrow \square \times 1 = 6 \times 7$

$\boxed{\square = 42}$

(b) $\frac{10}{50} = \frac{\square}{500} \Rightarrow \square \times 50 = 10 \times 500$

$\Rightarrow \square = \frac{10 \times \overset{10}{\cancel{500}}}{\cancel{50}} = 100$

$\boxed{\square = 100}$

(c) $\frac{15}{\square} = \frac{3}{4} \Rightarrow 4 \times 15 = 3 \times \square$

$\Rightarrow \square = \frac{4 \times \overset{5}{\cancel{15}}}{\cancel{3}} = 20$

$\boxed{\square = 20}$

(d) $\frac{36}{\square} = \frac{6}{11} \Rightarrow \square \times 6 = 36 \times 11$

$\Rightarrow \square = \frac{\overset{6}{\cancel{36}} \times 11}{\cancel{6}} = 66$

$\boxed{\square = 66}$

Q.9. There are 24 students is a class. 8 students have passed the fractions test. What fraction of the students have passed fractions ?

Sol. $\frac{\text{Passed}}{\text{Total}}$ = Required fraction

Required fraction = $\frac{8}{24} = \frac{1}{3}$

Q.10. Write the complements to answer the following questions :

(a) A cake had 16 slices. 5 were eaten. What fraction of the cake was left ?

(b) There are 20 students in our class. 11 are girls. What part of the class are boys ?

Sol. (a) $\frac{16-5}{16} = \frac{11}{16}$ $\frac{\text{(Left)}}{\text{Total}}$

(b) $\frac{20-11}{20} = \frac{9}{20}$ $\frac{\text{(Difference)}}{\text{(Total)}}$

Exercise 13.2

Q.1. Name the following fractions as proper, improper, mixed and unit fraction :

(a) $\frac{5}{8}$ (b) $\frac{2}{9}$ (c) $\frac{1}{3}$

(d) $\frac{1}{8}$ (e) $2\frac{3}{4}$ (f) $\frac{53}{50}$

Sol. (a) Proper fraction (b) Proper fraction

(c) Unit Fraction (d) Unit Fraction

(e) Mixed Fraction (f) Improper Fraction

Q.2. Name the following fractions as like or unlike fractions :

(a) $\frac{4}{5}, \frac{6}{5}$ (b) $\frac{6}{7}, \frac{1}{8}$

(c) $\frac{3}{7}, \frac{11}{15}$ (d) $\frac{78}{93}, \frac{45}{93}$

Sol. (a) Like Fraction (b) Unlike Fraction

(c) Unlike Fraction (d) Like Fraction

Q.3. Pick out the proper fractions from the following and write proper fractions in the circle, improper fractions in the triangle and mixed fractions in the square :

(a) $\frac{12}{5}, \frac{3}{6}, \frac{4}{8}, \frac{7}{9}, \frac{1}{4}$

(b) $\frac{13}{8}, 6\frac{3}{6}, \frac{11}{12}, \frac{15}{19}, \frac{3}{8}$

(c) $\frac{2}{8}, 6\frac{3}{4}, \frac{8}{4}, \frac{4}{7}, 1\frac{1}{9}$

(d) $\frac{7}{9}, \frac{18}{10}, \frac{13}{10}, 2\frac{4}{7}, \frac{2}{5}$

Sol. (a) $\frac{3}{6}, \frac{4}{8}, \frac{7}{9}$ (b) $\frac{11}{12}, \frac{15}{19}, \frac{3}{8}$

(c) $\frac{2}{8}, \frac{4}{7}$ (c) $\frac{7}{9}, \frac{2}{5}$

Q.4. Circle the like fractions from the following

(a) $\frac{2}{8}, \frac{1}{7}, \frac{2}{9}$ (b) $\frac{4}{9}, \frac{6}{9}, \frac{2}{9}$

(c) $\frac{13}{18}, \frac{11}{16}, \frac{12}{27}$

Sol. (b) All denominators are same.

Q.5. Circle the unlike fractions from the following :

(a) $\frac{3}{8}, \frac{1}{7}, \frac{2}{5}$ (b) $\frac{6}{17}, \frac{3}{17}, \frac{9}{17}$

(c) $\frac{8}{6}, \frac{3}{6}, \frac{1}{6}$

Sol. (a) All are different.

Q.6. Convert the following improper fractions into mixed fractions :

(a) $\frac{7}{3}$ (b) $\frac{11}{5}$ (c) $\frac{41}{5}$

Sol. (a) $2\frac{1}{2}$ (b) $2\frac{1}{5}$ (c) $8\frac{1}{5}$

Q.7. Convert the following mixed fractions into improper fractions :

(a) $5\frac{2}{7}$ (b) $7\frac{4}{5}$ (c) $11\frac{1}{13}$

Sol. (a) $\frac{37}{7}$ (b) $\frac{39}{5}$ (c) $\frac{144}{13}$

Q.8. Write the next 3 like fractions for the following :

(a) $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}$ (b) $\frac{3}{10}, \frac{4}{10}, \frac{5}{10}$

(c) $\frac{4}{18}, \frac{5}{18}, \frac{6}{18}$

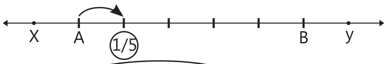
Sol. (a) $\frac{4}{8}, \frac{5}{8}, \frac{6}{8}$ (d) $\frac{6}{10}, \frac{7}{10}, \frac{8}{10}$

(c) $\frac{7}{18}, \frac{8}{18}, \frac{9}{18}$

Q.9. Show the following fractions on a number line :

(a) $\frac{1}{5}$ (b) $\frac{5}{7}$ (c) $\frac{4}{9}$

Sol. (a)



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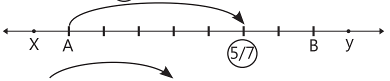

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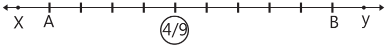
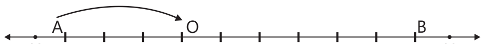


Q.10. Write the fractions denoted by line segment AO on each number line :

(a)



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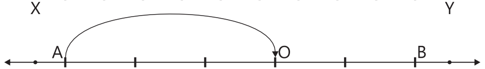
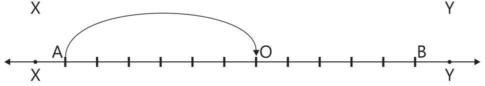


(c)



Sol. (a) $\frac{3}{9}$ (b) $\frac{3}{5}$ (c) $\frac{6}{11}$

Exercise 13.3

Q.1. Fill in the correct symbol : <, > or = :

(a) $\frac{3}{8} \bigcirc \frac{6}{16}$ (b) $\frac{5}{9} \bigcirc \frac{5}{10}$

(c) $\frac{20}{25} \bigcirc \frac{13}{25}$ (d) $\frac{1}{3} \bigcirc \frac{5}{6}$

(e) $\frac{3}{6} \bigcirc \frac{1}{5}$ (f) $\frac{2}{12} \bigcirc \frac{1}{3}$

Sol. (a) = (b) > (c) > (d) < (e) > (f) <

Q.2. Rewrite these fractions in ascending order

(a) $\frac{2}{3}, \frac{2}{7}, \frac{3}{5}$ (b) $\frac{1}{8}, \frac{2}{5}, \frac{1}{4}$

(c) $\frac{6}{7}, \frac{3}{5}, \frac{5}{7}$ (d) $\frac{1}{4}, \frac{7}{8}, \frac{3}{16}$

Sol. (a) $\frac{2}{7} < \frac{3}{5} < \frac{2}{3}$ (b) $\frac{1}{8} < \frac{1}{5} < \frac{2}{5}$

(c) $\frac{3}{5} < \frac{5}{7} < \frac{6}{7}$ (d) $\frac{3}{16} < \frac{1}{4} < \frac{7}{8}$

Q.3. Rewrite these fractions in descending order :

(a) $\frac{3}{4}, \frac{1}{2}, \frac{4}{5}$ (b) $\frac{2}{3}, \frac{5}{7}, \frac{2}{5}$

(c) $\frac{1}{6}, \frac{1}{8}, \frac{1}{9}$ (d) $\frac{2}{3}, \frac{4}{5}, \frac{7}{9}$

Sol. (a) $\frac{4}{5} > \frac{3}{4} > \frac{1}{2}$ (b) $\frac{5}{7} > \frac{2}{3} > \frac{2}{5}$

(c) $\frac{1}{6} > \frac{1}{8} > \frac{1}{9}$ (d) $\frac{4}{5} > \frac{7}{9} > \frac{2}{3}$

Q.4. Find the sum :

(a) $\frac{2}{4} + \frac{1}{4}$ (b) $\frac{1}{6} + \frac{3}{6}$

(c) $\frac{1}{7} + \frac{4}{7}$ (d) $\frac{4}{9} + \frac{2}{9}$

(e) $\frac{5}{11} + \frac{3}{11} + \frac{2}{11}$ (f) $\frac{4}{19} + \frac{5}{19} + \frac{10}{19}$

Sol. (a) $\frac{2}{4} + \frac{1}{4} = \frac{2+1}{4} = \frac{3}{4}$

(b) $\frac{1}{6} + \frac{3}{6} = \frac{1+3}{6} = \frac{4}{6}$

(c) $\frac{1}{7} + \frac{4}{7} = \frac{1+4}{7} = \frac{5}{7}$

(d) $\frac{4+2}{9} = \frac{6}{9}$

(e) $\frac{5}{11} + \frac{3}{11} + \frac{2}{11} = \frac{5+3+2}{11} = \frac{10}{11}$

(f) $\frac{4}{19} + \frac{5}{19} + \frac{10}{19} = \frac{4+5+10}{19} = \frac{19}{19}$

Q.5. Add the following :

(a) $\frac{2}{6}$ and $\frac{3}{6}$ (b) $\frac{8}{11}$ and $\frac{2}{11}$

(c) $\frac{9}{16}$ and $\frac{5}{16}$

Sol. (a) $\frac{2}{6} + \frac{3}{6} = \frac{2+3}{6} = \frac{5}{6}$

(b) $\frac{8}{11} + \frac{2}{11} = \frac{8+2}{11} = \frac{10}{11}$

(c) $\frac{9}{16} + \frac{5}{16} = \frac{9+5}{16} = \frac{14}{16}$

Q.6. Find the difference :

(a) $\frac{4}{7} - \frac{3}{7}$ (b) $\frac{5}{10} - \frac{3}{10}$

(c) $\frac{11}{15} - \frac{4}{15}$ (d) $\frac{12}{17} - \frac{8}{17}$

Sol. (a) $\frac{4}{7} - \frac{3}{7} = \frac{4-3}{7} = \frac{1}{7}$

(b) $\frac{5}{10} - \frac{3}{10} = \frac{5-3}{10} = \frac{2}{10}$

(c) $\frac{11}{15} - \frac{4}{15} = \frac{11-4}{15} = \frac{7}{15}$

(d) $\frac{12}{17} - \frac{8}{17} = \frac{12-8}{17} = \frac{4}{17}$

Q.7. Subtract the following :

(a) $\frac{2}{5}$ from $\frac{3}{5}$ (b) $\frac{2}{8}$ from $\frac{6}{8}$

(c) $\frac{1}{18}$ from $\frac{5}{18}$

Sol. (a) $\frac{3}{5} - \frac{2}{5} = \frac{3-2}{5} = \frac{1}{5}$

(b) $\frac{6}{8} - \frac{2}{8} = \frac{6-2}{8} = \frac{4}{8}$

(c) $\frac{5}{18} - \frac{1}{18} = \frac{5-1}{18} = \frac{4}{18}$

Q.8. Reduce these fractions to lowest terms :

(a) $\frac{9}{12}$ (b) $\frac{14}{18}$ (c) $\frac{18}{36}$

(d) $\frac{27}{36}$ (e) $\frac{63}{81}$ (f) $\frac{60}{85}$

Sol. (a) $\frac{\overset{3}{\cancel{9}}}{\underset{4}{\cancel{12}}} = \frac{3}{4}$ (b) $\frac{\overset{7}{\cancel{14}}}{\underset{9}{\cancel{18}}} = \frac{7}{9}$

(c) $\frac{\overset{1}{\cancel{18}}}{\underset{2}{\cancel{36}}} = \frac{1}{2}$ (d) $\frac{\overset{\overset{3}{\cancel{9}}}{\cancel{27}}}{\underset{\underset{4}{\cancel{12}}}{\cancel{36}}} = \frac{3}{4}$

(e) $\frac{\overset{7}{\cancel{63}}}{\underset{9}{\cancel{81}}} = \frac{7}{9}$ (f) $\frac{\overset{12}{\cancel{60}}}{\underset{17}{\cancel{85}}} = \frac{12}{17}$

Q.9. Mrs. Singh bought 3/4 kg rice. She cooked 1/4 kg of it. How much rice was left over?

Sol. Total rice = $\frac{3}{4}$ kg

Rice cooked = $\frac{1}{4}$ kg

Rice left over = $\frac{3}{4} - \frac{1}{4} = \frac{3-1}{4} = \frac{2}{4}$ kg

Q.10. Abhijit ate 1/4 of the cake while Sumit ate 3/4 of the cake. Who ate more cake and by how much?

Sol. Abhijit ate = $\frac{1}{4}$ cake

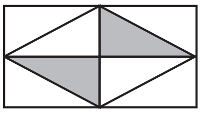
Sumit ate = $\frac{3}{4}$ cake

Sumit ate more
difference = $\frac{3}{4} - \frac{1}{4} = \frac{3-1}{4} = \frac{2}{4} = \frac{1}{2}$

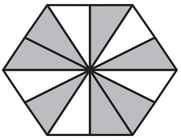
Must Practice Exercise-13

Q.1. Make the fractions of the shaded area in the following diagrams :

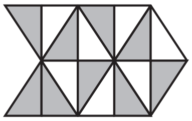
(a)



(b)



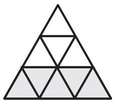
(c)



Sol. (a) $\frac{2}{8}$ (b) $\frac{7}{12}$ (c) $\frac{9}{16}$

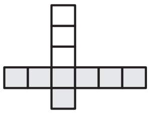
Q.2. Shade a part of each whole to represent the given fraction.

(a)



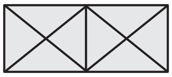
$\frac{5}{9}$

(b)



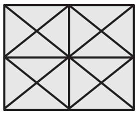
$\frac{7}{10}$

(c)



$\frac{5}{8}$

(d)



$\frac{13}{16}$

Q.3. Write the fractional number name for each of the following fractions :

(a) $\frac{2}{3}$ (b) $\frac{1}{7}$ (c) $\frac{3}{5}$ (d) $\frac{5}{6}$

(e) $2\frac{5}{8}$ (f) $1\frac{1}{2}$ (g) $2\frac{3}{4}$ (h) $4\frac{2}{5}$

Sol. (a) Two-thirds (b) One-sevenths
(c) Three-fifths (d) Five-sixths
(e) Two and Five-eigths
(f) One and one-haf
(g) Two and three fourths
(h) Four and two fifths.

Q.4. Write the fractional number for each of the following fractional numbers name :

(a) A half (b) three-eighths
(c) two-thirds (d) one and one half
(e) Five and one sixth
(f) three and one quarter
(g) three-fourths (h) two and one half

Sol. (a) $\frac{1}{2}$ (b) $\frac{3}{8}$ (c) $\frac{2}{3}$ (d) $1\frac{1}{2}$

(e) $5\frac{1}{6}$ (f) $3\frac{1}{4}$ (g) $\frac{3}{4}$ (h) $2\frac{1}{2}$

Q.5. Write fractions that tell the following information :

(a) Count three of five equal parts
(b) Count twenty of fifty equal parts

Sol. (a) $\frac{3}{5}$ (b) $\frac{20}{50}$

Q.6. It is 25 miles to Jaipur. We have already driven 11 miles. What fraction of the way have we driven ?

Sol. $\frac{\text{Distance covered}}{\text{Total distance}} = \frac{11}{25} = \frac{11}{25}$

Q.7. It is 45 miles to Rajan's house. We have driven 14 miles already. What fraction of the way do we have left to go ?

Sol. $\dfrac{\text{Distance lefted}}{\text{Total distance}} = \dfrac{45 - 14}{45} = \dfrac{31}{45}$

Q.8. Write the next four equivalent fractions.

(a) $\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \ldots\ldots = \ldots\ldots = \ldots\ldots = \ldots\ldots$

(b) $\frac{4}{5} = \frac{8}{10} = \frac{12}{15} = \ldots\ldots = \ldots\ldots = \ldots\ldots = \ldots\ldots$

Sol. (a) $\frac{4}{20}, \frac{5}{25}, \frac{6}{30}, \frac{7}{35}$

(b) $\frac{16}{20}, \frac{20}{25}, \frac{24}{30}, \frac{28}{35}$

Q.9. Write four fractions equivalent to each of the following.

(a) $\frac{1}{4}$ (b) $\frac{3}{4}$ (c) $\frac{6}{7}$

Sol. (a) $\frac{2}{8}, \frac{3}{12}, \frac{4}{16}$ (b) $\frac{6}{8}, \frac{9}{12}, \frac{12}{16}$

(c) $\frac{12}{14}, \frac{18}{21}, \frac{24}{28}$

Q.10. Find the missing numerals.

(a) $\frac{3}{4} = \frac{\square}{16}$ (b) $\frac{4}{5} = \frac{\square}{30}$

(c) $\frac{2}{7} = \frac{\square}{21}$

Sol. (a) $4 \times \square = 16 \times 3 \Rightarrow \square = \dfrac{\overset{4}{\cancel{16}} \times 3}{\cancel{4}} = 12$

$\boxed{\square = 12}$

(b) $5 \times \square = 4 \times 30 \Rightarrow \square = \dfrac{4 \times \overset{6}{\cancel{30}}}{\cancel{5}} = 24$

$\boxed{\square = 24}$

(c) $7 \times \square = 2 \times 21 \Rightarrow \square = \dfrac{2 \times \overset{3}{\cancel{21}}}{\cancel{7}} = 6$

$\boxed{\square = 6}$

Q.11. Convert the following mixed fractions into improper fractions :

(a) $1\frac{1}{11}$ (b) $2\frac{11}{12}$ (c) $9\frac{3}{10}$

Sol. (a) $1\dfrac{1}{11} = \dfrac{1 \times 11 + 1}{11} = \dfrac{11 + 1}{11} = \dfrac{12}{11}$

(b) $2 \times \dfrac{11}{12} = \dfrac{2 \times 12 + 11}{12} = \dfrac{24 + 11}{12} = \dfrac{35}{12}$

(c) $9 \times \dfrac{3}{10} = \dfrac{9 \times 10 + 3}{10} = \dfrac{90 + 3}{10} = \dfrac{93}{10}$

Q.12. Convert the following improper fractions into mixed fractions :

(a) $\frac{100}{9}$ (b) $\frac{51}{4}$ (c) $\frac{87}{10}$

Sol. (a) $\begin{array}{r} 9\overline{)100}(11 \\ \underline{9} \\ 10 \\ \underline{9} \\ 1 \end{array}$ $\boxed{\dfrac{100}{9} = 11\dfrac{1}{9}}$

(b) $\begin{array}{r} 4\overline{)51}(12 \\ \underline{4} \\ 11 \\ \underline{8} \\ 3 \end{array}$ $\boxed{\dfrac{51}{4} = 12\dfrac{3}{4}}$

(c) $\begin{array}{r} 10\overline{)87}(8 \\ \underline{80} \\ 7 \end{array}$ $\boxed{\dfrac{87}{10} = 8\dfrac{7}{10}}$

Q.13. Put the correct symbol =, > or < in the placeholder :

(a) $\frac{3}{4} \bigcirc \frac{3}{7}$ (b) $\frac{2}{5} \bigcirc \frac{2}{9}$

(c) $\frac{9}{19} \bigcirc \frac{9}{10}$

Sol. (a) $3 \times 7 \bigcirc 5 \times 4 \Rightarrow 21 \textcircled{>} 12$

(b) $2 \times 9 \bigcirc 2 \times 5 \Rightarrow 18 \textcircled{>} 10$

(c) $3 \times 10 \bigcirc 9 \times 19 \Rightarrow 90 \textcircled{<} 171$

Q.14. Arrange the following fractions in ascending order :

(a) $\frac{2}{3}, \frac{5}{3}, \frac{1}{3}, \frac{7}{3}$ (b) $\frac{6}{2}, \frac{1}{2}, \frac{3}{2}, \frac{5}{2}, \frac{4}{2}$

(c) $\frac{3}{7}, \frac{1}{7}, \frac{5}{7}, \frac{2}{7}$

Sol. (a) $\frac{1}{3} < \frac{2}{3} < \frac{5}{3} < \frac{7}{3}$

(b) $\frac{1}{2} < \frac{3}{2} < \frac{4}{2} < \frac{5}{2} < \frac{6}{2}$

(c) $\frac{1}{7} < \frac{1}{2} < \frac{3}{7} < \frac{5}{7}$

Q.15. Arrange the following fractions in descending order :

(a) $\frac{2}{4}, \frac{1}{4}, \frac{5}{4}, \frac{3}{4}$ (b) $\frac{3}{8}, \frac{5}{8}, \frac{2}{8}, \frac{7}{8}$

(c) $\frac{7}{5}, \frac{2}{5}, \frac{3}{5}, \frac{8}{5}$

Sol. (a) $\frac{5}{4} > \frac{3}{4} > \frac{2}{4} > \frac{1}{4}$

(b) $\frac{7}{8} > \frac{5}{8} > \frac{3}{8} > \frac{2}{8}$

(c) $\frac{8}{5} > \frac{7}{5} > \frac{3}{5} > \frac{2}{5}$

Q.16. Find the sum :

(a) $\frac{3}{8} + \frac{4}{8}$ (b) $\frac{4}{15} + \frac{7}{15} + \frac{2}{15}$

(c) $\frac{1}{10}, \frac{3}{10}$ and $\frac{3}{10}$ (d) $\frac{2}{12}, \frac{3}{12}$ and $\frac{5}{12}$

Sol. (a) $\frac{3}{8} + \frac{4}{8} = \frac{3+4}{8} = \frac{7}{8}$

(b) $\frac{4}{15} + \frac{7}{15} + \frac{2}{15} = \frac{4+7+2}{15} = \frac{13}{15}$

(c) $\frac{1}{10} + \frac{3}{10} + \frac{4}{10} = \frac{1+3+4}{10} = \frac{8}{10}$

(d) $\frac{2}{12} + \frac{3}{12} + \frac{5}{12} = \frac{2+3+5}{12} = \frac{10}{12}$

Q.17. Find the difference :

(a) $\frac{7}{8}, \frac{3}{8}$ (b) $\frac{5}{6}, \frac{1}{6}$ (c) $\frac{4}{11}, \frac{6}{22}$

Sol. (a) $\frac{7}{8} - \frac{3}{8} = \frac{7-3}{8} = \frac{4}{8} = \frac{1}{2}$

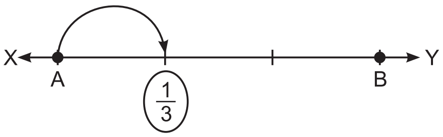
(b) $\frac{5}{6} - \frac{1}{6} = \frac{5-1}{6} = \frac{4}{6} = \frac{2}{3}$

(c) $\frac{4}{11} - \frac{6}{22} = \frac{8}{22} - \frac{6}{22} = \frac{8-6}{22} = \frac{2}{22} = \frac{1}{11}$

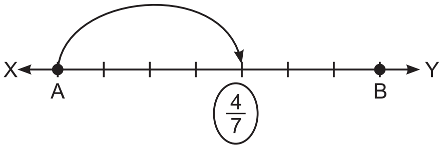
Q.18. Represent each of the following fractions on the number line :

(a) $\frac{1}{3}$ (b) $\frac{4}{7}$ (c) $\frac{6}{11}$

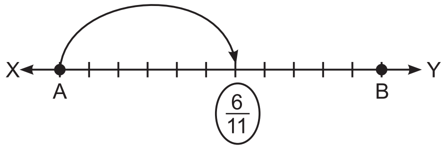
(a)



(b)



(c)



Q.19. Raju read of 3/7 his novel in the morning and 2/7 in the evening. What part of the novel has he read ?

Sol. Total part read = $\frac{3}{7} + \frac{2}{7} = \frac{3+2}{7} = \frac{5}{7}$

Q.20. Rajan Maurya travelled 2/11 of his journey on the first day, 4/11 on the second day and 3/11 on the third day . What part of the journey did he cover in the three days ?

Sol. Total journey completed = $\frac{2}{11} + \frac{4}{11} + \frac{3}{11}$

$= \frac{2}{11} + \frac{4}{11} + \frac{3}{11} = \frac{2+4+3}{11} = \frac{9}{11}$

Q.21. Reduce the following fractions to lowest terms :

(a) $\frac{17}{51}$ (b) $\frac{50}{75}$ (c) $\frac{80}{100}$ (d) $\frac{400}{500}$

Sol. (a) $\frac{\cancel{17}^{1}}{\cancel{51}_{3}} = \frac{1}{3}$ (b) $\frac{\cancel{50}^{2}}{\cancel{75}_{3}} = \frac{2}{3}$

(c) $\frac{\cancel{80}^{4}}{\cancel{100}_{5}} = \frac{4}{5}$ (d) $\frac{\cancel{400}^{4}}{\cancel{500}_{5}} = \frac{4}{5}$

Click Type Questions

Tick (✔) the correct answer :

Q.1. $\frac{5}{6}$ and $\frac{7}{9}$ are

(a) unit fractions (b) proper fractions

(c) unlike fractions (d) all of these

Sol. (c) All numerators and denominators are different.

Q.2. $\frac{1}{8}$ and $\frac{1}{17}$ are

(a) proper fractions (b) unlike fractions

(c) unit fractions (d) all of the above

Sol. (c) All numerators are unit (l)

Q.3. In the word TELEPHONE, the fraction for the vowels is :

(a) $\frac{4}{9}$ (b) $\frac{3}{10}$ (c) $\frac{4}{10}$ (d) $\frac{3}{9}$

Sol. (a) Vowels = E, E, O, E, Fraction = 4/9

Q.4. In the word, DICTIONARY, the fraction for the vowels is :

(a) $\frac{3}{10}$ (b) $\frac{2}{5}$ (c) $\frac{4}{11}$ (d) $\frac{2}{10}$

Sol. (b) Vowels = I, I, O, A, fraction = 4/10 or 2/5

Q.5. The fraction equivalent to 2/3 is :

(a) $\frac{2}{4}$ (b) $\frac{3}{6}$ (c) $\frac{4}{9}$ (d) $\frac{12}{18}$

Sol. (d) $\frac{2}{3} = \frac{2 \times 6}{3 \times 6} = \frac{12}{18}$

Q.6. Which of the following is an improper fraction?

(a) $\frac{2}{5}$ (b) $\frac{23}{21}$ (c) $\frac{1}{2}$ (d) $\frac{11}{14}$

Sol. (b) $\frac{23}{21}$ Numerator > Denominator

Q.7. The equivalent fraction of 4/7 with numerator 20 is :

(a) $\frac{20}{30}$ (b) $\frac{20}{21}$ (c) $\frac{20}{28}$ (d) $\frac{20}{35}$

Sol. (d) $\frac{4}{7} = \frac{20}{\square} \Rightarrow \frac{4 \times 5}{7 \times 5} = \frac{20}{\boxed{35}}$

Q.8. Which of the following statements is correct?

(a) $6\frac{3}{7} = \frac{7 \times 3 + 6}{5} = \frac{27}{7}$

(b) $\frac{9}{13} = \frac{9+5}{13+5} = \frac{14}{18}$

(c) $\frac{3}{7} + \frac{3}{8} = \frac{3}{7+8} = \frac{3}{15}$

(d) $\frac{18}{81} = \frac{18 \div 9}{81 \div 9} = \frac{2}{9}$

Sol. (d) $\frac{18}{81} = \frac{18 \div 9}{81 \div 9} = \frac{2}{9}$

Q.9. Which of the following is an improper fraction?

(a) $\frac{2}{15}$ (b) $\frac{23}{24}$ (c) $\frac{4}{2}$ (d) $\frac{14}{14}$

Sol. (c) $\frac{4}{2}$ Numerator > Denominator

Q.10. A sack contains 53 red and white balls. Of these, 17 balls are red. What is the fraction of white balls to the total balls in the sack?

(a) $\frac{17}{53}$ (b) $\frac{26}{53}$ (c) $\frac{36}{53}$ (d) $\frac{17}{36}$

Sol. (c) total balls = 53

Red balls = 17

White balls = 53 – 17

= 36

$$\text{Required fraction} = \frac{\text{White balls}}{\text{Total balls}} = \frac{36}{53}$$

Chapter-14 Measure of length, Mass & Capacity

Exercise 14.1

Q.1. Express each of the following in cm :

(a) 64 mm (b) 70 mm (c) 85 mm

Sol.

$$\boxed{\begin{aligned} 10\text{ mm} &= 1\text{ cm} \\ 1\text{ mm} &= \frac{1}{10}\text{ cm} \end{aligned}}$$

(a) 64 mm = $\frac{64}{10}$ cm = 6.4 cm

(b) 70 mm = $\frac{70}{10}$ cm = 7 cm

(c) 85 mm = $\frac{85}{10}$ cm = 8.5 cm

Q.2. Express each of the following in metres :

(a) 310 cm (b) 520 cm (c) 3560 cm

Sol.

$$\boxed{\begin{aligned} 100\text{ cm} &= 1\text{ m} \\ 1\text{ cm} &= \frac{1}{100}\text{ cm} \end{aligned}}$$

(a) 310 cm = $\frac{310}{100}$ m = 3.10 m

(b) 520 cm = $\frac{520}{100}$ m = 5.20 m

(c) 3560 cm = $\frac{3560}{100}$ m = 35.60 m

Q.3. Convert each of the following into cm :

(a) 9 m (b) 17 m (c) 84 m

Sol. $\boxed{1\text{ m} = 100\text{ cm}}$

(a) 9 m = 9 × 100 cm = 900 cm

(b) 17 m = 17 × 100 cm = 1700 cm

(c) 84 m = 84 × 100 cm = 8400 cm

Q.4. Convert each of the following into mm :

(a) 7 cm (b) 23 cm (c) 65 cm

Sol. $\boxed{\text{1 cm = 10 mm}}$

(a) 7 cm = 7 × 10 mm = 70 mm

(b) 23 cm = 23 × 10 mm = 230 mm

(c) 65 cm = 65 × 10 mm = 650 mm

Q.5. Convert each of the following into metres:

(a) 23 km 25 m (b) 80 km 5 m

(c) 10 km 165 m

Sol. $\boxed{\text{1 km = 1000 m}}$

(a) 23 km 25 m = 23 × 1000 + 25

= 23000 + 25 = 23025 m

(b) 80 km 5 m = 80 × 1000 + 5

= 80000 + 5 = 80005 m

(c) 10 km 165 m = 10 × 1000 + 165 m

= 10000 + 165 = 10165 m

Q.6. Convert each of the following into cm :

(a) 5 m 40 cm (b) 63 m 75 cm

(c) 40 m 5 cm

Sol. $\boxed{\text{1 m = 100 cm}}$

(a) 5 m 40 cm = 5 × 100 + 40

= 500 + 40 = 540 cm

(b) 63 m 75 cm = 63 × 100 + 75 = 6300 + 75

= 6375 cm

(c) 40 m 5 cm = 40 × 100 + 5 = 4000 + 5

= 4005 cm

Q.7. Convert each of the following into metres :

(a) 4 km 8 hm 5 dam 6 m

(b) 12 km 6 hm 8 dam 5 m

Sol. $\boxed{\begin{array}{l}\text{1 km = 1000 m}\\ \text{1 hm = 100 m}\\ \text{1 dam = 10 m}\end{array}}$

(a) 4 km 8 hm 5 dam 6 m

= 4 × 1000 + 8 × 1000 + 5 × 10 + 6

= 4000 + 800 + 50 + 6 = 4856 m

(b) 12 km 6 hm 8 dam 5 m

= 12 × 1000 + 6 × 100 + 8 × 10 + 6

= 12000 + 600 + 80 + 6 = 12686 m

Q.8. Convert each of the following into grams :

(a) 4 kg (b) 23 kg (c) 108 kg

Sol. $\boxed{\text{1 kg = 1000 g}}$

(a) 4 kg = 4 × 1000 g = 4000

(b) 23 kg = 23 × 1000 g = 23000 g

(c) 108 kg = 108 × 1000 g = 108000 g

Q.9. Convert each of the following into grams :

(a) 8 kg 125 g (b) 12 kg 30 g (c) 20 kg 5 g

Sol. $\boxed{\text{1 kg = 1000 g}}$

(a) 8 kg 125 g = 8 × 1000 + 125 = 8000 + 125

= 8125 g

(b) 12 kg 30 g = 12 × 1000 + 30 = 12000 + 30

= 12030 g

(c) 20 kg 5 g = 20 × 1000 + 5 = 20000 + 5

= 20005 g

Q.10. Convert each of the following into grams :

(a) 5 kg 4 hg 2 dag 3 g

(b) 20 kg 5 hg 8 dag 6 g

Sol. $\boxed{\begin{array}{l}\text{1 kg = 1000 g}\\ \text{1 hg = 100 g}\\ \text{1 dag = 10 g}\end{array}}$

(a) 5 kg 4 hg 2 dag 3g

= 5 × 1000 + 4 × 100 + 2 × 10 + 3

= 5000 + 400 + 20 + 3 = 5423 g

(b) 20 kg 5 hg 8 dag 6 g

= 20 × 1000 + 5 × 100 + 8 × 10 + 6

= 20000 + 500 + 80 + 6 = 20586 g

Q.11. Convert each of the following into litres :

(a) 8 kL (b) 50 kL (c) 132 kL

Sol. $\boxed{1\text{ kL} = 1000\text{ L}}$

(a) 8 kL = 8 × 1000 L = 8000 L

(b) 50 kL = 50 × 1000 L = 50000 L

(c) 132 kL = 132 × 1000 L = 132000 L

Q.12. Convert each of the following into litres :

(a) 2 kL 350 L (b) 83 kL 60 L

(c) 102 kL 8 L

Sol. $\boxed{1\text{ kL} = 1000\text{ L}}$

(a) 2 kL 350 L = 2 × 1000 + 350

= 2000 + 350 = 2350 L

(b) 83 kL 60 L = 83 × 1000 + 60

= 83000 + 60 = 83060 L

(c) 102 kL 8 L = 102 × 1000 + 8

= 102000 + 8 = 102008 L

Q.13. Convert each of the following into mL :

(a) 6 L 250 mL (b) 15 L 40 mL

(c) 43 L 3 mL

Sol. $\boxed{1\text{ L} = 1000\text{ mL}}$

(a) 6 L 250 mL = 6 × 1000 + 250

= 6000 + 250 = 6250 mL

(b) 15 L 40 mL = 15 × 1000 + 40

= 15000 + 40 = 15040 mL

(c) 43 L 3 mL = 43 × 1000 + 3

= 43000 + 3 = 43003 mL

Q.14. Convert each of the following into litres :

(a) 3 kL 6 hL 4 daL 5 L

(b) 12 kL 8 hL 6 daL 9 L

Sol. $\boxed{\begin{array}{l} 1\text{ kL} = 1000\text{ L} \\ 1\text{ hL} = 100\text{ L} \\ 1\text{ dal} = 10\text{ L} \end{array}}$

(a) 3 kL 6 hL 4 dal 5L

= 3 × 1000 + 6 × 100 + 4 × 10 + 5

= 3000 + 600 + 40 + 5 = 3645 L

(b) 12 kL 8 hL 6 dal 9 L

= 12 × 1000 + 8 × 100 + 6 × 10 = 9

= 12000 + 800 + 60 + 9 = 12869 L

Exercise 14.2

Q.1. Add the following :

(a)
$$\begin{array}{rrr} & \text{kg} & \text{g} \\ & 34 & 105 \\ + & 4 & 864 \\ \hline & & \\ \hline \end{array}$$

(b)
$$\begin{array}{rrr} & \text{km} & \text{m} \\ & 45 & 185 \\ + & 5 & 764 \\ \hline & & \\ \hline \end{array}$$

(c)
$$\begin{array}{rrr} & \text{L} & \text{mL} \\ & 8 & 465 \\ + & 3 & 134 \\ \hline & & \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rrr} & \text{kg} & \text{g} \\ & 34 & 105 \\ + & 4 & 864 \\ \hline & 38 & 969 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrr} & \text{km} & \text{m} \\ & \textcircled{1} & \textcircled{1} \\ & 45 & 185 \\ + & 5 & 764 \\ \hline & 50 & 949 \\ \hline \end{array}$$

(c)
$$\begin{array}{rrr} & \text{L} & \text{mL} \\ & 8 & 465 \\ + & 3 & 134 \\ \hline & 11 & 599 \\ \hline \end{array}$$

Q.2. Subtract the following :

(a)
$$\begin{array}{rrr} & \text{kg} & \text{g} \\ & 46 & 250 \\ - & 8 & 540 \\ \hline & & \\ \hline \end{array}$$

(b)
$$\begin{array}{rrr} & \text{km} & \text{m} \\ & 43 & 500 \\ - & 28 & 230 \\ \hline & & \\ \hline \end{array}$$

(c)
$$\begin{array}{rrr} & \text{L} & \text{mL} \\ & 46 & 300 \\ - & 40 & 500 \\ \hline & & \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rrr} & \text{kg} & \text{g} \\ & \textcircled{15} & \\ & \textcircled{3}\textcircled{5} & \textcircled{12} \\ & \cancel{4}\cancel{6} & \cancel{2}50 \\ - & 8 & 540 \\ \hline & 37 & 710 \\ \hline \end{array}$$

(b)
$$\begin{array}{rrr} & \text{km} & \text{m} \\ & \textcircled{3}\textcircled{13} & \textcircled{4}\textcircled{10} \\ & \cancel{4}\cancel{3} & \cancel{5}\cancel{0}0 \\ - & 28 & 230 \\ \hline & 15 & 270 \\ \hline \end{array}$$

(c)
$$\begin{array}{rrr} & \text{L} & \text{mL} \\ & \textcircled{5} & \textcircled{13} \\ & 4\cancel{6} & \cancel{3}00 \\ - & 40 & 500 \\ \hline & 5 & 800 \\ \hline \end{array}$$

Q.3. Find the sum of :

(a) 45 kg 456 g and 23 kg 608 g

(b) 123 km 34 m 103 cm and 89 km 405 m 222cm

(c) 13 km 670 m; 45 km 908 m and 29 km 770 m

(d) 45 kL 43 L; 18 kL 390 L and 55 kL 900 L

Sol. (a)

	kg	g
	○ ①	○ ① ○
	4 5	4 5 6
+	2 3	6 0 8
	6 9	0 6 4

(b)

	km	m	cm
	① ① ○	○ ○	○ ○ ○
	1 2 3	3 4	1 0 3
+	8 9	4 0 5	2 2 2
	2 1 2	4 3 9	3 2 5

325 cm

= 300 cm + 25 cm

= 3 m 25 cm

439 m

add

439 + 3

= 442 m

So, 212 km 438 m 325 km

= 212 km 442 m 25 cm

(c)

	km	m
	① ②	① ○ ○
	1 3	6 7 0
	4 5	9 0 8
+	2 9	7 7 0
	8 9	3 4 8

(d)

	kL	L
	① ①	① ○ ○
	4 5	4 3
	1 8	3 9 0
+	5 5	9 0 0
	1 1 9	3 3 3

Q.4. Subtract the following :

(a) 537 m 63 cm from 678 m 10 cm

(b) 31 km 706 m from 42 km 900 m

(c) 13 L 230 mL from 42 L 789 mL

(d) 52 kg 300 g 45 mg from 76 kg 104 g 66 mg

Sol. (a)

	km	m
		⑩
	○ ○ ⑦	⓪ ⑩
	6 7 8	1 0
–	5 3 7	6 3
	1 4 0	4 7

(b)

	m	cm
		⑨
	○ ○	⑧ ⑩ ⑩
	4 2	9 0 0
–	3 1	7 0 6
	1 1	1 9 4

(c)

	L	mL
	③ ⑫	○ ○ ○
	4 2	7 8 9
–	1 3	2 3 0
	2 9	5 5 9

(d)

	kg	g	mg
	○ ⑤	⑪ ○ ○	○ ○
	7 6	1 0 4	6 6
–	5 2	3 0 0	4 5
	2 3	8 0 4	2 1

Q.5. The length of a rope is 442 m 52 cm. The length of another rope is 354 m 84 cm. Find the length of both the ropes together.

Sol.

	m	cm
	○ ○ ①	○ ○
Length of Ist rope =	4 4 2 m	5 2 cm
Length of IInd rope =	3 5 4 m	8 4 cm
+		
Total length =	7 9 7 m	3 6 cm

Q.6. Ajay travelled 75 km 620 m by train and 24 km 725 m by bus. What distance did he travel in all?

Sol.

	km	m
	① ①	○ ○ ○
Travel by train =	7 5 km	6 2 0 m
Travel by bus =	2 4 km	7 2 5 m
+		
Total travel =	1 0 0 km	3 4 5 m

Q.7. A milkman sold 46 L 450 mL, 35 L 500 mL and 56 L 706 mL of milk in three days. How much milk has he sold in all?

Sol.

$$\begin{array}{rrrrrrr} & & \text{L} & & & \text{mL} & \\ & & \textcircled{1} & \textcircled{1} & \bigcirc & \bigcirc & \bigcirc \\ & & 4 & 6 & 4 & 5 & 0 \\ & & 3 & 5 & 5 & 0 & 0 \\ + & & 5 & 6 & 7 & 0 & 6 \\ \hline & 1 & 3 & 8 & 6 & 5 & 6 \\ \hline \end{array}$$

Q.8. Radha and Veena took part in 100 m race. Radha fell down after running 79 m 50 cm. What distance did she left uncovered?

Sol. Total distance = 100 m

Covered distance = 79 m 50 cm

Lefted distance = (total – covered)

= 100 m – 79 m 50 cm

$$\begin{array}{rrrrrr} & & \text{m} & & & \text{cm} \\ & & \textcircled{9} & \textcircled{9} & \textcircled{10} & \\ & \bigcirc & \textcircled{10} & \textcircled{10} & & \bigcirc \\ & 1 & 0 & 0 & 0 & 0 \\ - & & 7 & 9 & 5 & 0 \\ \hline & & 2 & 0 & 5 & 0 \\ \hline \end{array}$$

Q.9. A candle was 32 cm long when it was lighted. It is now 21 cm 5 mm long. How much candle had been burnt out?

Sol. Total length = 32 cm

Lefted length = 21 cm 5 mm

Burned part of candle

= 32 cm – 21 cm 5 mm

$$\begin{array}{rrrr} & \text{cm} & & \text{mm} \\ & & & \textcircled{10} \\ & \bigcirc & \textcircled{1} & \\ & 3 & 2 & 5 \\ - & 2 & 1 & 5 \\ \hline & 1 & 0 & 5 \\ \hline \end{array}$$

Q.10. A man had 345 m 66 cm of rope. He used 234 m 15 cm of it. How much rope is left?

Sol. Total length of rope = 345 m 66 cm

Length of used rope = 234 m 15 cm

Lefted rope = 345 m 66 cm – 234 m 15 cm

$$\begin{array}{rrrrrr} & & \text{m} & & & \text{cm} \\ & 3 & 4 & 5 & 6 & 6 \\ - & 2 & 3 & 4 & 1 & 5 \\ \hline & 1 & 1 & 1 & 5 & 1 \\ \hline \end{array}$$

Must Practice Exercise-14

Q.1. Convert the following from centimetre to millimetre :

(a) 4 cm (b) 6 cm (c) 9 cm

Sol. (a) 4 cm = 4 × 10 mm = 40 mm

(b) 6 cm = 6 × 10 mm = 60 mm

(c) 9 cm = 9 × 10 mm = 90 mm

Q.2. Convert the following from millimetre to centimetre :

(a) 20 mm (b) 30 mm

(c) 40 mm

Sol. (a) 20 mm = $\frac{20}{10}$ cm = 2 cm

(b) 30 mm = $\frac{30}{10}$ cm = 3 cm

(c) 40 mm = $\frac{40}{10}$ cm = 4 cm

Q.3. Convert the following from centimetre to metre:

(a) 400 cm (b) 600 cm

(c) 900 cm

Sol. (a) 400 cm = $\frac{400}{100}$ m = 4 m

(b) 600 cm = $\frac{600}{100}$ m = 6 m

(c) 900 cm = $\frac{900}{100}$ m = 9 m

Q.4. Convert the following from metre to centimetre?

(a) 3 m (b) 7 m

(c) 8 m 50 cm

Sol. (a) 3 m = 3 × 100 cm = 300 cm

(b) 7 m = 7 × 100 cm = 700 cm

(c) 8 m 50 cm = 8 × 100 + 50 = 800 + 50

= 850 cm

Q.5. A shopkeeper sold 15 kg sugar, 5 kg rice and 2 kg pulse to a customer. How much weight customer bought from the shop?

Sol. Total weight =

$$\begin{array}{rrrl} & \textcircled{1} & \bigcirc & \\ & 1 & 5 & \text{kg} \\ & & 5 & \text{kg} \\ + & & 2 & \text{kg} \\ \hline & 2 & 2 & \text{kg} \\ \hline \end{array}$$

Q.6. How many weights of 100 gram are required in weighing scale to weigh 400 gram goods?

Sol. 400 gram = 4 × 100 gram
= four weight of 100 gram

Q.7. A customer buys 5 kg sugar from a shop. On the way, the bag rifted and 2 kg of sugar spilt. How much sugar is left in the bag?

Sol. Total sugar = 5 kg
Spilted sugar = 2 kg
Lefted sugar = 5 kg – 2 kg
= 3 kg

Q.8. How many buckets will be required if we want to fill 70 litre water tub with 10 litre bucket?

Sol. 70 litre
= 7 × 10 litre
= 7 bucket of 10 litre

Q.9. A milk man delivered 12 litres, 17 litres, 28 litres and 13 litres milk in four houses.
What is the total amount of milk he dilivered?

Sol. Total milk =

$$\begin{array}{rrl} & \textcircled{2}\ \bigcirc & \\ & 1\ 2 & \text{litres} \\ & 1\ 7 & \text{litres} \\ & 2\ 8 & \text{litres} \\ + & 1\ 3 & \text{litres} \\ \hline & 7\ 0 & \text{litres} \\ \hline \end{array}$$

Q.10. Convert litre to mililitre:
(a) 5 litre (b) 13 litre
(c) 2 litre 250 millilitre
(d) 22 litre 500 millilitre

Sol. (a) 5 litre = 5 × 1000 ml
= 5000 mL
(b) 13 litre = 13 × 1000 mL
= 13000 mL
(c) 2 litre 250 millilitre
= 2 × 1000 + 250
= 2000 + 250
= 2250 mL
(d) 22 litre 500 millilitre
= 22 × 1000 + 500 = 22000 + 500
= 22500 mL

Q.11. Convert millilitre to litre:
(a) 2000 millilitre (b) 2750 millilitre
(c) 3200 millillitre (d) 4700 millilitre

Sol. (a) 2000 mL = $\frac{2000}{1000}$ L = 2 L
(b) 2750 mL = $\frac{2750}{1000}$ 2L = 2 L 750 mL
(c) 3200 mL = $\frac{3200}{1000}$ L = 3 L 200 mL
(d) 4700 mL = $\frac{4700}{1000}$ L = 4 L 700 mL

Q.12. Convert :
(a) 20 m 35 cm into cm
(b) 7 km 4 hm 3 dam 7 m into metres
(c) 40 kg 235 g into g
(d) 9 kL 7 hL 8 daL 2 L into litres
(e) 35L 384 mL into ml
(f) 18 kg 4 hg 7 dag 5 g into grams

Sol. (a) 20 m 35 cm
= 20 × 100 + 35 = 2000 + 35 = 2035 cm
(b) 7 km 4 hm 3 dam 7 m
= 7 × 1000 + 4 × 100 + 3 × 10 + 7
= 7000 + 400 + 30 + 7
= 7437 m
(c) 40 kg 235 g
= 40 × 1000 + 235
= 40000 + 235 = 40235 g
(d) 9 kL 7 hL 8 daL 2 L
= 9 × 1000 + 7 × 100 + 8 × 10 + 2
= 9000 + 700 + 80 + 2 = 9782 L
(e) 35 L 384 mL
= 35 × 1000 + 384 = 35000 + 384
= 35384 L
(f) 18 kg 4 hg 7 dag 5 g
= 18 × 1000 + 4 × 100 + 7 × 10 + 5
= 18000 + 400 + 70 + 5
= 18475 g

Q.13. Express the following in metres, centimetres and millimetres :
(a) 1400 mm (b) 8430 mm
(c) 7598 mm

Sol. (a) 1400 mm = $\frac{1400}{1000}$ m = 1 m 4 cm
(b) 8430 mm = $\frac{8430}{1000}$ m = 8 m 43 cm
(c) 7598 mm = $\frac{7598}{1000}$ m = 7 m 59 cm 8 mm

Q.14. Express the following in kilometres and metres :

(a) 8000 m (b) 7499 m (c) 2590 m

Sol. (a) $8000 \text{ m} = \frac{8000}{1000} \text{ km} = 8 \text{ km}$

(b) $7499 \text{ m} = \frac{7499}{1000} \text{ km} = 7 \text{ km } 499 \text{ m}$

(c) $2590 \text{ m} = \frac{2590}{1000} \text{ km} = 2 \text{ km } 590 \text{ m}$

Q.15. Express the following in kilograms and grams :

(a) 9000 g (b) 7420 g (c) 3058 g

Sol. (a) $9000 \text{ g} = \frac{9000}{1000} \text{ kg} = 9 \text{ kg}$

(b) $7420 \text{ g} = \frac{7420}{1000} \text{ kg} = 7 \text{ kg } 420 \text{ g}$

(c) $3058 \text{ g} = \frac{3058}{1000} \text{ kg} = 3 \text{ kg } 58 \text{ g}$

Q.16. Express the following in grams and milligrams:

(a) 7000 mg (b) 4835 mg (c) 7845 mg

Sol. (a) $7000 \text{ mg} = \frac{7000}{1000} \text{ g} = 7 \text{ g}$

(b) $4835 \text{ mg} = \frac{4835}{1000} \text{ g} = 4 \text{ g } 835 \text{ mg}$

(c) $7845 \text{ mg} = \frac{7845}{1000} \text{ g} = 7 \text{ g } 845 \text{ mg}$

Q.17. Express the following in kilolitres and litres :

(a) 4000 l (b) 6589 l (c) 3847 l

Sol. (a) $4000 \text{ L} = \frac{4000}{1000} \text{ kL} = 4 \text{ kL}$

(b) $6589 \text{ L} = \frac{6589}{1000} \text{ kL} = 6 \text{ kL } 589 \text{ L}$

(c) $3847 \text{ L} = \frac{3847}{1000} \text{ kL} = 3 \text{ kL } 847$

Q.18. Express the following in litres and mililitres :

(a) 2000 ml (b) 3440 ml (c) 2685 ml

Sol. (a) $2000 \text{ mL} = \frac{2000}{1000} \text{ L} = 2 \text{ L}$

(b) $3440 \text{ mL} = \frac{3440}{1000} \text{ L} = 3 \text{ L } 440 \text{ mL}$

(c) $2685 \text{ mL} = \frac{2685}{1000} \text{ L} = 2 \text{ L } 685 \text{ mL}$

Q.19. Find the sum :

(a) 15 m 56 cm, 22 m 85 cm and 13 mm

(b) 100 g 530 mg, 250 g 2 mg and 53 mg

(c) 161 L, 120 L, 131 mL and 260L 533 mL

Sol. (a)

$$\begin{array}{ccccccc}
 & \multicolumn{2}{c}{\text{m}} & \multicolumn{2}{c}{\text{cm}} & \multicolumn{2}{c}{\text{mm}} \\
 & \bigcirc & \textcircled{1} & \textcircled{1} & \bigcirc & & \\
 & 1 & 5 & 5 & 6 & & \\
 & 2 & 2 & 8 & 5 & & \\
+ & & & & & 1 & 3 \\
\hline
 & 3 & 8 & 4 & 1 & \textcircled{1} & 3 \\
 & & & & & + & \\
\hline
\end{array}$$

$\Rightarrow$ 38 m 42 cm 3 mm

(b)

$$\begin{array}{ccccccc}
 & \multicolumn{3}{c}{\text{g}} & \multicolumn{3}{c}{\text{mg}} \\
 & 1 & 0 & 0 & 5 & 3 & 0 \\
 & 2 & 5 & 0 & & & 2 \\
+ & & & & & 5 & 3 \\
\hline
 & 3 & 5 & 0 & 5 & 8 & 5 \\
\hline
\end{array}$$

(c)

$$\begin{array}{ccccccc}
 & \multicolumn{3}{c}{\text{L}} & \multicolumn{3}{c}{\text{mL}} \\
 & \textcircled{1} & & & & & \\
 & 1 & 6 & 1 & & & \\
 & 1 & 2 & 0 & & & \\
 & & & & 1 & 3 & 1 \\
+ & 2 & 6 & 0 & 5 & 3 & 3 \\
\hline
 & 5 & 4 & 1 & 6 & 6 & 4 \\
\hline
\end{array}$$

Q.20. Subtract :

(a) 14 km 8 hm 4 dam 3 m from 18 km 2 hm 3 m

(b) 12 g 4 dg 5 cg from 40 g

(c) 32 kL 117 L from 58 kL 60 L

Sol. (a)

$$\begin{array}{cccccc}
 & \multicolumn{2}{c}{\text{km}} & \text{hm} & \text{dam} & \text{m} \\
 & & & \textcircled{11} & & \\
 & \bigcirc & \textcircled{7} & \textcircled{1} & \textcircled{10} & \\
 & 1 & 8 & 2 & 0 & 3 \\
- & 1 & 4 & 8 & 4 & 3 \\
\hline
 & & 3 & 3 & 6 & 0 \\
\hline
\end{array}$$

(b)

$$\begin{array}{ccccc}
 & \multicolumn{2}{c}{\text{g}} & \text{dg} & \text{cg} \\
 & & \textcircled{9} & \textcircled{9} & \\
 & \textcircled{3} & \textcircled{10} & \textcircled{10} & \textcircled{10} \\
 & 4 & 0 & 0 & 0 \\
- & 1 & 2 & 4 & 5 \\
\hline
 & 2 & 7 & 5 & 5 \\
\hline
\end{array}$$

(c)

	kL	L
		⑩⑤⑩
	○⑦	○○○
	5 8	0 6 0
−	3 2	1 1 7
	2 5	9 4 3

Q.21. A drum had 58 L oil. The shopkeeper sold 24 L 5 mL oil from it. What quantity of oil remaied in the drum now ?

Sol. Total oil = 58 L

Oil sold = 24 L 5 mL

	L	mL
		⑨⑨
	⑦	⑩⑩⑩
	5 8 L	0 0 0 mL
−	2 4 L	5 mL
Lefted oil	3 3 L	9 9 5 mL

Q.22. Reena covered a distance of 12 km 160 m on foot, 25 km 610 m by bus and 48 km by car. Find the total distance (in m) covered by her.

Sol. Total distance covered

	km	m
	①○	○○○
	1 2	1 6 0
	2 5	6 1 0
+	4 8	
	8 5	7 7 0

Click Type Questions

Tick (✔) the correct answer.

Q.1. The basic unit of length is :

(a) km (b) m (c) mm (d) cm

Sol. (a)

Q.2. The basic unit of mass is :

(a) kg (b) mg (c) cg (d) g

Sol. (a)

Q.3. The basic unit of capacity is :

(a) kL (b) mL (c) L (d) cL

Sol. (c)

Q4. To convert a length given in km into metres, we :

(a) divide by 100 (b) multiply by 100

(c) divide by 1000 (d) multiply by 1000

Sol. (d)

Q5. 8 m 9 cm = ?

(a) 809 cm (b) 890 cm

(c) 8009 cm (d) 8090 cm

Sol. (a) $8 \times 100 + 9 = 800 + 9 = 809$ cm

Q.6. 8 cm 2 mm + 2 cm 8 mm = ?

(a) 10 cm 2 mm (b) 10 cm 8 mm

(c) 10 cm (d) 11 cm

Sol. (d) 8 cm + 2 mm + 2 cm + 8 mm

= 8 cm + 2 cm + (2 m + 8 mm)

= 11 cm

Q.7. 5 dL 5 mL = – mL

(a) 55 (b) 505 (c) 550 (d) 5005

Sol. (b) 5 dL 5 mL = $5 \times 100 + 5$

= 500 + 5 = 505 mL

Q.8. 6 cm 4 mm =

(a) 64 mm (b) 604 mm

(c) 640 mm (d) 10 mm

Sol. (a) $6 \times 10 + 4 = 60 = 4 = 64$ mm

Q.9. Rahul measured the height of a wall in his house. Which is the best metric unit of measure to use ?

(a) millimetres (b) centimetres

(c) metres (d) kilometres

Sol. (c)

Q.10. Out of a sack of 50 kg of rice, 27 kg 650 g was used in a restaurant during a certain month. How much rice remained in the sack ?

(a) 22 kg 350 g (b) 23 kg 350 g

(c) 22 kg 650 g (d) 23 kg 450 g

Sol. (a)

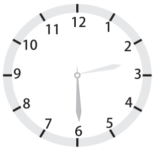
	kg	g
	⑨	⑨
	④⑩	⑩⑩○
	5 0	0 0 0
−	2 7	6 5 0
	2 2	3 5 0

Chapter-15 Time

Exercise 15.1

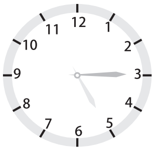
Q.1. Write the time show by these clocks :

Sol. (a)



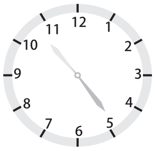
2 : 30

(b)



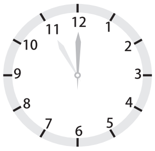
5 : 15

Sol. (c)



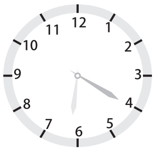
10 : 25

(d)



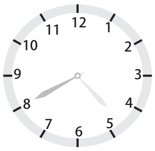
11 : 00

Sol. (e)



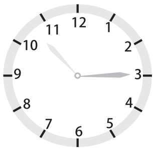
6 : 20

(f)



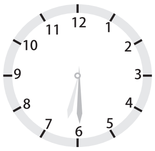
4 : 40

Sol. (g)



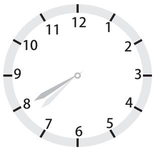
10 : 15

(h)



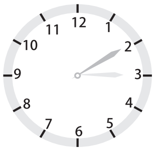
6 : 30

Sol. (i)



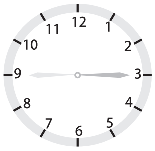
7 : 40

(j)



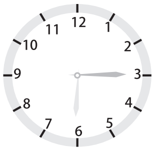
2 : 15

Sol. (k)



9 : 15

(l)

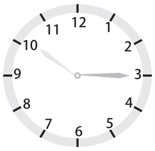


6 : 15

Q.2. Draw the minute and the hour hand according to the time given in the. Also write the time on the box below the clock in another way :

10 : 15

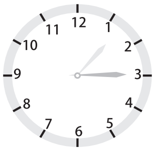
Sol. (a)



Quarter past 10

1 : 15

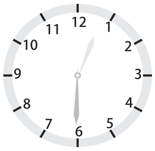
(b)



Quarter past 1

12 : 35

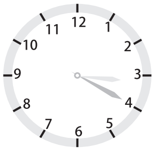
Sol. (c)



half past 12

3 : 20

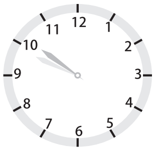
(d)



20 minutes past 3

9 : 50

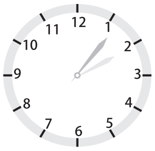
Sol. (e)



10 minutes to 10

2 : 05

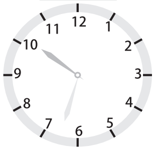
(f)



5 minutes past 2

6 : 50

Sol. (g)



10 minutes to 7

Exercise 15.2

Q.1. Calendar of October month is given. Answer the following questions :

October 2019						
S	M	T	W	T	F	S
		1	②	3	4	5
⑥	7	8	9	10	11	12
⑬	14	15	16	17	18	19
⑳	21	22	23	24	25	26
㉗	28	29	30	31		

(a) Make the circles in boxes of Sunday.
(b) Make the circle in the box of day when Gandhi Jayanti is celebrated.
(c) Monday is on date 7, on which date the next Monday will come?
(d) Which day is on the last date of month?
(e) How many Sundays will come in this month?

Sol. (a) Date 6, 13, 20, 27 are circled.
(b) 2 Oct. is circled. (c) 14 Oct.
(d) Thursday (e) Four

Q.2. Convert the following into hours :
(a) 2 days (b) 15 days
(c) 21 days (d) 13 days 18 hours

Sol. $\boxed{1 \text{ day} = 24 \text{ hours}}$

(a) 2 days = 2 × 24 = 48 hours
(b) 15 days = 15 × 24 = 360 hours
(c) 21 days = 21 × 24 = 504 hours
(d) 13 days 18 hours = 13 × 24 + 18
= 312 + 18 = 330 hours

Q.3. Convert the following into minutes :
(a) 14 hours 5 minutes
(b) 16 hours 30 minutes

Sol. $\boxed{1 \text{ hour} = 60 \text{ minutes}}$

(a) 14 hours 5 minutes
= 14 × 60 + 5 = 840 + 5 = 845 minutes
(b) 16 hours 30 minutes
= 16 × 60 + 30 = 960 + 30 = 990 minutes

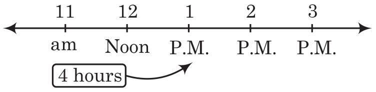
Q.4. Convert the following into seconds :
(a) 6 minutes 45 seconds
(b) 10 minutes 16 seconds

Sol. $\boxed{1 \text{ minute} = 60 \text{ seconds}}$

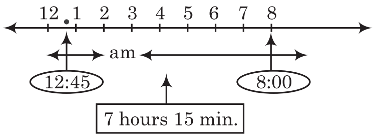
(a) 6 minutes 45 seconds
= 6 × 60 + 45 = 360 + 45 = 405 seconds
(b) 10 minutes 16 seconds
= 10 × 60 + 16 = 600 + 16 = 616 seconds

Q.5. How many hours and minutes have passed from:
(a) 11.00 am to 3:00 pm
(b) 12:45 am to 8:00 am

Sol. (a)

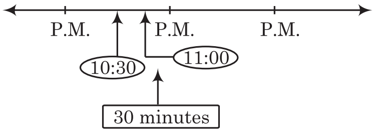


(b)

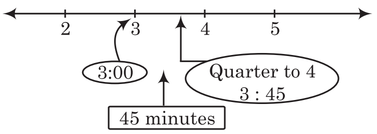


Q.6. How many minutes have passed from:
(a) 10:30 pm to 11:00 pm
(b) 3 o' clock quarter to 4 o'clock

Sol. (a)



(b)



Q.7. Add the following :
(a) 2 hours 20 minutes and 3 hours 15 minutes
(b) 1 hour 45 minutes and 7 hours 18 minutes

Sol. (a)

	Hours	Minutes
	2	20
+	3	15
	5	35

⇒ 5 hours 35 mins.

(b)

	Hours	Minutes
	1	45
+	7	18
	8	63

63 Minutes
= 60 min. +3 min.
= 1 hour + 3 min.

⇒ (8 + 1) hours 3 minutes
⇒ 9 hours 3 minutes

Q.8. Subtract the following:
(a) 3 hours 15 minutes from 5 hours 40 minutes
(b) 6 hours 20 minutes from 9 hours 40 minutes

Sol. (a)

	Hours	Minutes
	5	$\overset{③}{\cancel{4}}\ \overset{⑩}{\cancel{0}}$
−	3	1 5
	2	2 5

(b)

	Hours	Minutes
	9	40
−	6	20
	3	20

Q.9. Change the time given below to 24-hour clock time :

(a) 6:30 a.m. (b) 12:55 p.m.
(c) 11:50 p.m. (d) 3:30 a.m.

Sol. (a) 6:30 a.m. = 0630 hrs
(b) 12:55 p.m. = 1255 hrs
(c) 11:50 p.m. = 1150 hrs + 1200 hrs
= 2350 hrs
(d) 3:30 a.m. = 0330 hrs

Q.10. Change the time given below to 12-hour clock time :

(a) 0332 hours (b) 0630 hours
(c) 0030 hours (d) 2155 hours

Sol. (a) 0332 hours = 3:32 a.m.
(b) 0630 hours = 6:30 a.m.
(c) 0030 hours = 12:30 a.m.
(d) 2155 hours = 2155 hrs – 1200 hrs
= 955 hrs
= 09:55 p.m.

Q.11. Radha completes a work in 6 days, then how much work will be done in 3 days?

6 days work = 1 work

Sol. 1 day work = $\frac{1}{6}$ 1 work

3 days work = $3 \times \frac{1}{6} = \frac{1}{2}$ work

= half work

Q.12. A bus departs for Haridwar at 1542 hours and reaches there at 2128 hours. Find the time taken by the bus to reach Haridwar.

Sol. 1542 hours = 3 : 42 p.m.
($\therefore$ 1542 – 1200 = 342)
2128 hours = 8 : 28 p.m.
($\therefore$ 2128 – 1200 = 828)
Time taken 8 : 28 p.m. – 3 : 42 p.m.

	Hours	Minutes
	$\cancel{8}$ ⑦	⑫ $\cancel{28}$
−	3	4 2
	4	8 6

⇒ 4 hours 86 mins.
= 5 hours 26 minutes.

Q.13. My mother went for shopping at 10:10 am. She returned at 11:55 am. For how long did she do shopping?

Sol. Time difference,

	Hours	Minutes
	11	55
−	10	10
	1	45

$\boxed{\text{1 hours 45 minutes}}$

Q.14. Piyush went out at 3:25 p.m. He came back at 6:55 p.m. For how much time was he not at home?

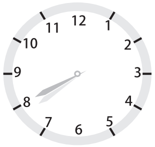
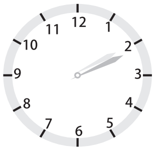
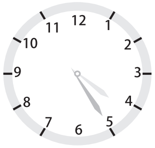
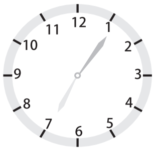
Sol. Time at which Piyush was not at home

	Hours	Minutes
	6	55
−	3	25
	3	30

$\boxed{\text{3 hours 30 minutes}}$

Must Practice Exercise-15

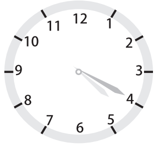
Q.1. Read the time:

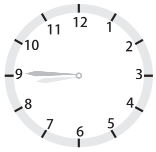
Sol. 7 : 40, 2 : 10, 4 : 25, 7 : 05

Q.2. Draw the minute and hour hand according to the given time in the box :

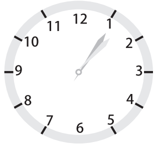
4 : 20



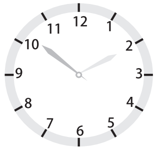
8 : 45



1 : 05



2 : 50



Q.3. Write the time in a.m. or p.m.:

(a) 2 o' clock at night

(b) 8 : 37 at night

(c) 11:00 in the morning

(d) 10 minutes to 10 in the morning

Sol. (a) 2 : 00 a.m. (b) 8 : 37 p.m.

(c) 11 : 00 a.m. (d) 9 : 50 a.m.

Q.4. Convert into 24-hour clock time:

(a) 8: 15 a.m. (b) 11:00 p.m.

(c) 10:11 a.m. (d) 12:18 midnight

Sol. (a) 8 : 15 a.m. = 0815 hrs

(b) 11 : 00 p.m. = 1100 + 1200

= 2300 hrs

(c) 10 : 11 a.m. = 1011 hrs

(d) 12 : 18 midnight = 1218 – 1200

= 0018 hrs

Q.5. Convert into 12-hour clock time:

(a) 1721 hours (b) 0028 hours

(c) 2349 hours (d) 1035 hours

Sol. (a) 1721 hrs = 1721 – 1200

= 521 hrs

= 5 : 21 p.m.

(b) 0028 hrs = 12 : 28 a.m.

(c) 2349 hrs = 2349 – 1200

= 1149 hrs

= 11 : 49 p.m.

(d) 1035 hrs = 10 : 35 a.m.

Q.6. What will be the time 4 hours after:

(a) 6:30 a.m. (b) 8:15 p.m.

(c) 2: 57 p.m. (d) 10: 45 p.m.

Sol. (a) 6 : 30 a.m. + 4 hours

= 10 : 30 a.m.

(b) 8 : 15 p.m. + 4 hours

= 12 : 15 a.m.

(c) 2 : 57 p.m. + 4 hours

= 6 : 57 p.m.

(d) 10 : 45 p.m. + 4 hours

= 2 : 45 a.m.

Q.7. What will be the time 2 hours before:

(a) 6: 15 a.m. (b) 10: 25 p.m.

(c) 6: 45 p.m. (d) 11: 00 a.m.

Sol. (a) 6 : 15 a.m. – 2 hours

= 4 : 15 a.m.

(b) 10 : 25 p.m. – 2 hours

= 8 : 25 p.m.

(c) 6 : 45 p.m. – 2 hours

4 : 45 p.m.

(d) 11 : 00 a.m. – 2 hours

= 9 : 00 a.m.

Q.8. Vikas gets up in the morning at 5:10 a.m. It takes him 45 minutes to get ready for the school. At what time does he start for school?

Sol. Required time

	Hours	Minutes
	5	10
+		45
	5	55

Q.9. Taj Express departs for Mathura at 1750 hours. What is the time of departure according to 12-hour clock?

Sol. Time 1750 hours

– 1200 hours

550 hours

= 550 hours = 5 : 50 p.m

Q.10. Convert the following into hours :

(a) 20 days (b) 3 days 18 hours

Sol. (a) 20 days = 20 × 24

= 480 hours

(b) 3 days 18 hours = 3 × 24 + 18

= 72 + 18

= 90 hours

Q.11. Convert the following into minutes :

(a) 4 hours 10 minutes

(b) 11 hours 25 minutes

Sol. (a) 4 hours 10 minutes

= 4 × 60 + 10

= 240 + 10 = 250 minutes

(b) 11 hours 25 minutes

= 11 × 60 + 25

= 660 + 25 = 685 minutes

Q.12. Convert the following into seconds :

(a) 23 minutes

(b) 8 minutes 30 seconds

Sol. (a) 23 minutes = 23 × 60 = 1380 seconds

(b) 8 minutes 30 seconds

= 8 × 60 + 30 = 480 + 30 = 510 seconds

Q.13. How many hours and minutes have passed from:

(a) 12:05 p.m to 7:30 p.m
(b) 8:00 am to 1:00 p.m.

Sol. (a)
$$\underset{\text{p.m.}}{12:05} \xleftrightarrow{\boxed{\text{6 hours 25 minutes}}} \underset{\text{p.m.}}{7:30}$$

(b)
$$\underset{\text{a.m.}}{8:00} \xleftrightarrow{\boxed{\text{5 hours}}} \underset{\text{p.m.}}{1:00}$$

Q.14. How many minutes have passed from:
(a) 7:30 a.m to 8:15 a.m _____
(b) Quarter to two to quarter past two

Sol. (a)
$$\underbrace{7:30 \text{ a.m.} - 8:15 \text{ a.m.}}_{\boxed{\text{45 minutes}}}$$

(b) Quarter to two – Quarter past two
$$\underbrace{1:45 - 2:15}_{\boxed{\text{30 min.}}}$$

Q.15. Add the following:
(a) 4 hours 26 minutes and 5 hours 30 minutes
(b) 5 hours 38 minutes and 4 hours 39 minutes

Sol. (a)
$$\begin{array}{lcc} & \text{Hours} & \text{Minutes} \\ & 4 & 26 \\ + & 5 & 30 \\ \hline & 9 & 56 \\ \hline \end{array}$$

(b)
$$\begin{array}{lcc} & \text{Hours} & \text{Minutes} \\ & & \textcircled{1} \\ & 4 & 3\,8 \\ + & 5 & 3\,9 \\ \hline & 9 & \textcircled{77} \\ \hline \end{array}$$

$\boxed{77 = 60 + 17}$

$\Rightarrow$ 77 min. = 60 min. + 17 min.

add = (1 hours) + 17 min.

$\Rightarrow$ (9 + 1) hours 17 min. = 10 hours 17 min.

Q.16. Subtract the following:
(a) 4 hours 26 minutes from 7 hours 35 minutes
(b) 7 hours 28 minutes from 10 hours 12 minutes

Sol. (a)
$$\begin{array}{lcc} & \text{Hours} & \text{Minutes} \\ & 7 & \textcircled{2}\cancel{3}\,\cancel{15}\,\textcircled{15} \\ - & 4 & 2\,6 \\ \hline & 3 & 0\,9 \\ \hline \end{array}$$

(b)
$$\begin{array}{lcc} & \text{Hours} & \text{Minutes} \\ & \cancel{10}\,\textcircled{9} & \textcircled{10}\,\cancel{1}\,2\,\textcircled{12} \\ - & 7 & 2\,8 \\ \hline & 2 & 8\,4 \\ \hline \end{array}$$

Q.17. Change the time given below to 24-hour clock time :
(a) 6:30 p.m. (b) 1:25 a.m.
(c) 11 : 50 a.m.

Sol. (a) 6 : 30 p.m. = 0640 hrs + 1200 hrs
= 1830 hrs
(b) 1 : 25 a.m. = 0125 hrs
(c) 11 : 50 a.m. = 1150 hrs

Q.18. Change the time given below to 12-hour clock time :
(a) 0035 hours (b) 2105 hours
(c) 1045 hours

Sol. (a) 0035 hours = 12 : 35 a.m.
(b) 2105 hours = 2105 – 1200
= 9 : 05 p.m.
(c) 1045 hours = 10 : 45 a.m.

Q.19. A train was scheduled to arrive at 5 : 20 pm. It was late by 3 hour 45 minutes. At what time did the train arrive?

Sol. 5 : 20 p.m + 3 hours 45 minutes
$$\begin{array}{lcc} & \text{Hours} & \text{Minutes} \\ & 5 & 20 \\ + & 3 & 45 \\ \hline & 8 & 65 \\ \hline \end{array}$$

8 hours 65 minutes
= 8 hours + 60 minutes + 5 minutes
= 8 hours + 1 hours + 5 minutes
= 9 hours 5 minutes

Q.20. The duration of a match was 6 hours 51 minutes. If the match started at 9 : 15 a.m., at what time did it end?

Sol.
$$\begin{array}{lcc} & \text{Hours} & \text{Minutes} \\ & 9 & 15 \\ + & 6 & 51 \\ \hline & 15 & 66 \\ \hline \end{array}$$

15 hours 66 minutes
= 15 hours + 60 minutes + 6 minutes
= 15 hours + 1 hour + 6 minutes
= 16 hours + 6 minutes
= 16 hours 6 minutes

Click Type Questions

Tick (✔) the correct answer :

Q.1. Which of the following is a leap year?
(a) 1908 (b) 1906 (c) 1903 (d) 1915

Sol. (a)

$$\begin{array}{r} 4\overline{)1908}(477 \\ \underline{16} \\ 30 \\ \underline{28} \\ 28 \\ \underline{28} \\ \times \end{array}$$

Q.2. ________ hand moves the fastest in a clock.
(a) Hour (b) Minute
(c) Seconds (d) None of these

Sol. (c)

Q.3. In the 24-hour clock the time corresponding to 12 noon is _______ hours.
(a) 0000 (b) 1200
(c) 1800 (d) 2400

Sol. (b) 12 noon = 1200 hours

Q.4. Adding 3 hours 20 minutes and 2 hours 35 minutes, we get :
(a) 345 min. (b) 355 minutes
(c) 350 minutes (d) 360 minutes

Sol. (b)

	Hours	Minutes
	3	20
+	2	35
	5	55

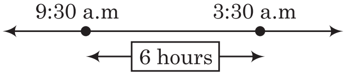
5 hours 55 minutes
$= 5 \times 60 + 55$
$= 300 + 55 = 355$ minutes

Q.5. What time was it 3 hours 30 minutes before 12 noon?
(a) 8 : 30 a.m. (b) 8 : 40 a.m.
(c) 9 : 30 a.m. (d) 9 : 30 a.m.

Sol. (a) 8 : 30 a.m. + 3 hours 30 minutes
= 12 noon

Q.6. The interval between 9 : 30 a.m. and 3 : 30 p.m. is :
(a) 5 hours (b) 6 hours
(c) 7 hours (d) 8 hours

Sol. (b)



Q.7. How many seconds are there in 1 hour?
(a) 60 (b) 360 (c) 2160 (d) 3600

Sol. (d) 1 hours = 1×60 minute
$= 1 \times 60 \times 60$ seconds
= 3600 seconds

Q.8. Which of the following gives the number of minutes in a day?
(a) 24 (b) 24×60
(c) $24 \times 60 \times 60$ (d) 60×60

Sol. (b) One day = 24 hours
1 hour = 60 minutes
minutes in one day $= 60 \times 24$

Q.9. 6 : 30 p.m. is the same as :
(a) 0630 hours (b) 1230 hours
(c) 1630 hours (d) 1830 hours

Sol. (d) 6 : 30 p.m. = 0630 + 1200
= 1830 hours

Q.10. 95 days are equal to :
(a) 13 weeks (b) 13 weeks 2 days
(c) 13 weeks 4 days (d) 15 weeks

Sol. (c) One week = 7 days
7 days = 1 week

$$1 \text{ day} = \frac{1}{7} \text{ week}$$

$$95 \text{ days} = \frac{95}{7} \text{ week}$$

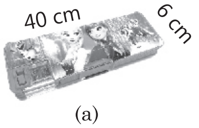
= 13 weeks 4 days

$$\begin{array}{r} 7\overline{)95}(13 \\ \underline{7} \\ 25 \\ \underline{21} \\ 4 \end{array}$$

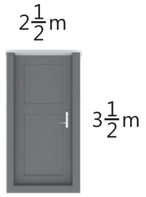
Chapter-16 Perimeter and Area

Exercise 16.1

Q.1. Find the perimeter.



(a)



(b)

2 cm
5 cm
INDIA POSTAGE

(c)

Sol. (a) Perimeter = 40 + 6 + 40 + 6
= 46 + 46 = 92 cm

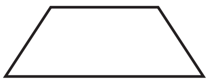
(b) $$\text{Perimeter} = 2\frac{1}{2} \text{ m} + 3\frac{1}{2} \text{ m}$$

$$= \frac{5}{2} \text{ m} + \frac{7}{2} \text{ m} = \frac{5+7}{2} \text{ m}$$

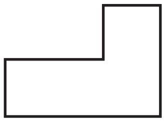
$$= \frac{12}{2} \text{ m} = 6 \text{ m}$$

(c) Perimeter = 2 cm + 5 cm + 2 cm + 5 cm
= 7 cm + 7 cm
= 14 cm

Q.2. Measure the sides of the given shapes with a scale. Find the perimeter of each :



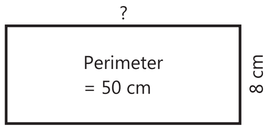
(a)



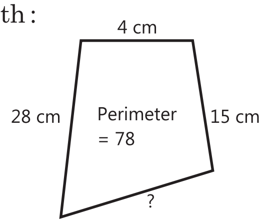
(b)

Sol. Do yourself

Q.3. Find the missing length :



(a)



(b)

Sol. (a) Perimeter $= 8 + (?) + 9 + (?)$

$\Rightarrow \quad 2 \times (?) + 16 = 50$

$\Rightarrow \quad 2\,(?) = 50 - 16 = 34$

$\Rightarrow \quad ? = 34/2 = 17$

$\Rightarrow \quad ? = 17$ cm

(b) Perimeter $= 28 + 4 + 15 + ?$

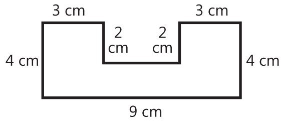
$\Rightarrow \quad 32 + 15 + ? = 78$

$\Rightarrow \quad 47 + ? = 78$

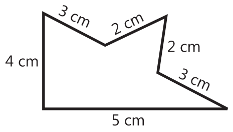
$\Rightarrow \quad ? = 78 - 47$

$= 31$ cm

Q.4. Find the perimeter of the following figures. The measures of sides are given in cm :



(a)



(b)

Sol. (a) Perimeter

$= (3 + 4) + (9 + 4) + (3 + 2) + (9 - 3 - 3) + 2$

$= (7 + 13) + (5 + 3 + 2)$

$= 20 + 10 = 30$ cm

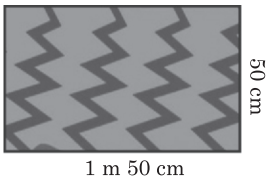
(b) Perimeter

$= (5 + 3) + (2 + 2) + (3 + 4)$

$= 8 + 4 + 7$

$= 12 + 7 = 19$ cm

Q.5. Aneeta has to fix a lace around a carpet. She bought a 50 m roll of lace. How much lace will be needed for one carpet? How much lace will be used for 5 such carpets? How much lace will be left over ?



Sol. Perimeter

$= 50 + 150 + 50 + 150$

($\therefore$ 1 m 50 cm = 150 cm)

$= 200 + 200$

$= 400$ cm

Lace for 5 carpets.

$= 400 \times 5 = 2000$ cm

$= 20 \times 100$ cm

$= 20 \times 1$ m

$= 20$ m

Lefted lace $= 50$ m $- 20$ m

$= 30$ m

Q.6. Every morning Mr Singh walks around a triangular park of sides 90 m, 120 m and 150 m. If he walks four rounds of the park, then how much distance does he walk?

Sol. Perimeter of park

$= 90$ m $+ 120$ m $+ 150$ m

$= 210$ m $+ 150$ m

$= 360$ m

Distance in four rounds

$= 4 \times 360$ m

$= 1440$ m

Q.7. A garden whose sides are 34 m, 28 m, 39 m and 29 m respectively, is to be fenced. The cost of fencing is ₹ 2 per metre. What is cost of fencing the whole garden ?

Sol. Perimeter of Garden

$= 34 + 28 + 39 + 29$

$= 130$ m

Cost of fancing

$= 130 \times 2$

$=$ ₹ 260

Q.8. An athlete ran 600 m around a field. The length and breadth of this field is 40 m and 20 m, respectively. How many rounds did the athlete take around the field ?

Sol. Distance covered of field = 600 m

Perimeter = 40 + 20 + 40 + 20

= 60 + 60

= 120 m

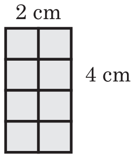
No. of rounds = 600/120 = 5

Hence, 5 rounds are required.

Exercise 16.2

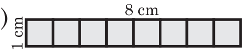
Q.1. Find out the area of the following figures :

(a)



length = 4 cm
breadth = 2 cm
area = 4 × 2 = 8 cm^2

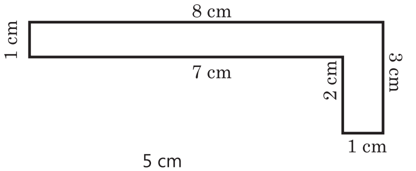
(b)



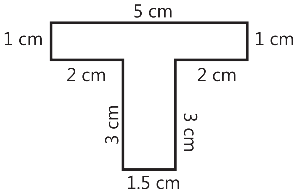
length = 8 cm
breadth = 1 cm
area = 1 × 8 = 8 cm^2

Q.2. What is the area of the given shapes?

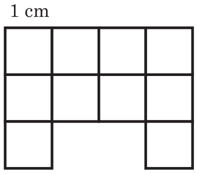
(a)



(b)



(c)

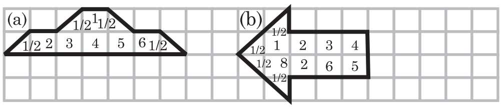


Sol. (a) Area = 8 × 1 + 2 × 1 = 8 + 2 = 10 cm^2

(b) Area = 5 × 1 + 3 × 1.5 = 5 + 4.5 = 9.5 cm^2

(c) Area = 10 cm^2

Q.3. Calculate the area of these shapes in square units. The side of each square is 1 unit.



Sol. (a) Area = 6 + 4 × 1/2 = 8 unit^2

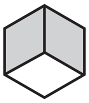
(b) Area = 8 + 4 × 1/2 = 8 + 2 = 10 unit^2

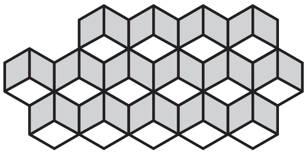
Q.4. Take a leaf of any three nearby you and find its are on grid paper.

Sol. Do yourself.

Q.5. See and write, how many tiles of these shapes can cover the given patterns completely without any gap:

Sol.





15 Ans.

Q.6. A play ground is 260 m long and 225 m wide. What is the area of the field?

Sol. Area = length × width

= 260 × 225

= 58500 m^2

$$\begin{array}{r} 260 \\ 225 \\ \hline 1300 \\ 520\times \\ 520\times\times \\ \hline 58500 \end{array}$$

Q.7. How much carpet is required to cover a field of length 28 m and breadth 10 m ?

Sol. Area of carpet = 28 m × 10 m

= 280 m^2

Q.8. Jagat wants to make a photo frame. He has a photo of length 16 cm and breadth 10 cm. How long frame will be required?

Sol. Length of frame

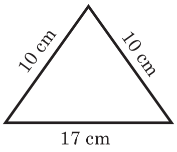
= Perimeter of photo

= 16 cm + 10 cm + 16 cm + 10 cm

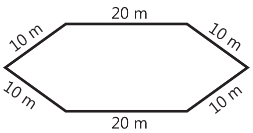
= 26 cm + 26 cm = 52 cm

Must Practice Exercise-16

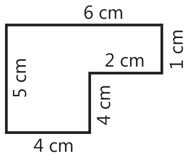
Q.1. Some figures are given below. Find out the perimeter of these figures.



(a)



(b)


6 cm
1 cm
2 cm
5 cm
4 cm
4 cm

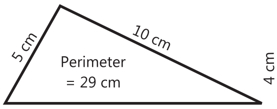
(c)

Sol. (a) Perimeter = 10 + 10 + 17 = 37 cm

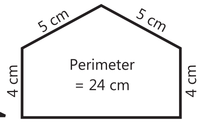
(b) Perimeter = 20 + 10 + 10 + 20 + 10 + 10
= 80 cm

(c) Perimeter = 6 + 1 + 2 + 4 + 4 + 5 = 22 cm

Q.2. Perimeters of some figures are given below. Length of one side is not given. Find out that length :


5 cm
10 cm
Perimeter
= 29 cm

(a)


5 cm
5 cm
4 cm
4 cm
Perimeter
= 24 cm

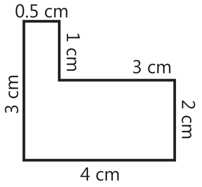
(b)

Sol. Required side
= Perimeter – sum of sides

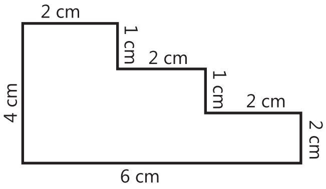
(a) Required side
= 29 – (5 + 10) = 29 – 15 = 14 cm

(b) Required side
= 24 – (5 + 4 + 5 + 4) = 24 – 18 = 6 cm

Q.3. Find the perimeter of the shapes. Which has the bigger perimeter?


0.5 cm
1 cm
3 cm
3 cm
2 cm
4 cm

(a)


2 cm
1 cm
2 cm
1 cm
2 cm
4 cm
2 cm
6 cm

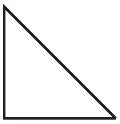
(b)

Sol. (a) Required perimeter
= 0.5 + 1 + 3 + 2 + 4 + 3 = 13.5 cm

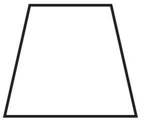
(b) Required perimeter
= 2 + 1 + 2 + 1 + 2 + 2 + 6 + 4 = 20 cm

Figure (b) has bigger perimeter.

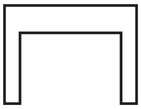
Q.4. Measure the sides by ruler and find the perimeter of the following shapes.



(a)



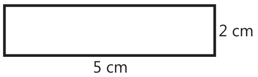
(b)



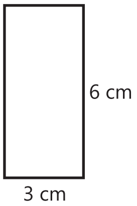
(c)

Sol. Do yourself

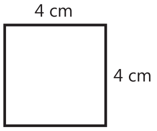
Q.5. Find the area of the following shapes.



(a)



(b)



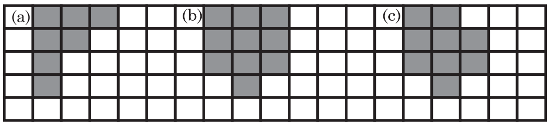
(c)

Sol. (a) Area = 5 × 2 = 10 cm^2

(b) Area = 6 × 3 = 18 cm^2

(c) Area = 4 × 4 = 16 cm^2

Q.6. Count the number of squares each shape covers. Write its area.

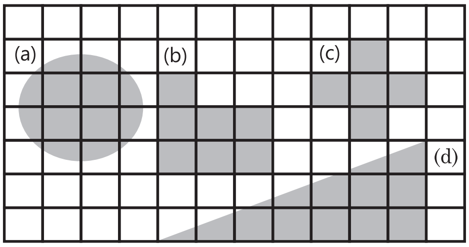


Sol. (a) Area = 7 unit^2

(b) Area = 10 unit^2

(c) Area = 9 unit^2

Q.7. Some shapes are on the grid paper. Find out their areas.



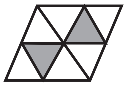
Sol. (a) Area = 8 unit$_2$

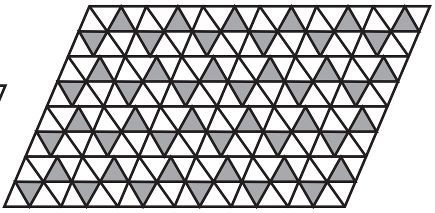
(b) Area = 7 unit^2

(c) Area = 5 unit^2

(d) Area = 11 unit^2

Q.8. See and write, how many tiles of these shapes can cover the given patterns completely without any gap :





Sol. 24 tiles

Q.9. The length and width of a table are 3 m and 2 m respectively. Find the area and perimeter of the table.

Sol. Area = $3 \times 2 = 6 \text{ m}^2$
Perimeter = $3 + 2 + 3 + 2 = 10$ m

Q.10. Mr. Jogi bought a mat 7 m long and 4 m broad. Find the area and perimeter of the mat.

Sol. Area = $7 \times 4 = 28 \text{ m}^2$
Perimeter = $7 + 4 + 7 + 4$
= 22 m

Q.11. A square mirror of side 30 cm has to be framed. What is the length of the frame needed?

Sol. Length of frame
= Perimeter = $30 \times 4 = 120$ cm

Q.12. The edges of a bedspread that is 3 m long and 2 m wide must be stitched with lace. How much lace is needed ?

Sol. Length of lace
= Perimeter = $3 + 2 + 3 + 2 = 10$ m

Q.13. The length and breadth of a rectangular park are 96 m and 64 m respectively. Find the length of the wire needed to fence all around the rectangular park. Find the cost of fencing, if fencing cost is ₹ 4 per metre.

Sol. Required wire
= Perimeter of park = $96 + 64 + 96 + 64$
= $160 + 160 = 320$ m
Cost of fencing = ₹ 4×320
= ₹ 1280

Click Type Questions

Tick (✔) the correct choice :

Q.1. The perimeter is same as the sum of _________ of a polygon.
(a) area (b) sides
(c) volume (d) none of these

Sol. (b) Perimeter = sum of sides

Q.2. Perimeter of a rectangle = 2 × (length + _________) unit.
(a)area (b) side
(c) breadth (d) none of these

Sol. (c) Perimeter of rectangle
= 2 (length + breadth)

Q.3. The area of a square whose sides are 15 m each is :
(a) 225 m (b) 225 sq. m
(c) 225 cm (d) none of these

Sol. (b) Area = $15 \times 15 = 225$ sq. m

Q.4. The area of a rectangle is 8 sq. m and its length is 4 m. Its breadth is :
(a) 4 m (b) 6 m
(c) 2 m (d) none of these

Sol. (c) Area = $l \times b \Rightarrow 8 = 4 \times b$
$\Rightarrow b = 8/4 = 2$ m

Q.5. The perimeter of a square with side 10 cm, will be :
(a) 100 cm (b) 40 cm
(c) 80 cm (d) 20 cm

Sol. (b) Perimeter = $4 \times 10 = 40$ cm

Q.6. What will be the area of a square field whose side is 50 m?
(a) 50 m^2 (b) 2500 m^2
(c) 100 m^2 (d) 200 m^2

Sol. (b) Area = $50 \times 50 = 2500 \text{ m}^2$

Q.7. What will be the area of a rectangle with length = 5 cm and breadth = 4 cm?
(a) 20 cm^2 (b) 18 cm^2
(c) 10 cm^2 (d) 36 cm^2

Sol. (a) Area = $5 \times 4 = 20 \text{ cm}^2$

Q.8. The perimeter of a triangle whose sides are 6 cm, 5 cm and 7 cm is :
(a) 30 cm (b) 15 sq m
(c) 18 cm (d) 25 cm

Sol. (c) Perimeter = $6 + 5 + 7 = 18$ cm

Q.9. If the length and breadth of a rectangular field is 9 m and 6 m respectively.
What is its perimeter?
(a) 54 m (b) 30 m
(c) 108 m (d) none of these

Sol. (b) Perimeter = $9 = 6 + 9 + 6$
= $15 + 15 = 30$ m

Q.10. The unit of area is :
(a) square unit (b) unit
(c) cm^2 (d) m^4

Sol. (a) unit of area = square unit or unit^2

Chapter-17 Money

Exercise 17.1

Q.1. Express each of the following amounts in figures both (in long form and short form :)

(a) Seventeen rupees and ninety paise
(b) Two hundred rupees and eight paise
(c) Eleven rupees and five paise
(d) Six paise

Sol. (a) 17 rupees 90 paise ₹ 17.90
(b) 200 rupees 8 paise ₹ 200.08
(c) 11 rupees 5 paise ₹ 11.05
(d) 6 paise ₹ 0.06

Q.2. Express each of the following amounts in words :

(a) ₹ 76.50 (b) ₹ 165.25
(c) ₹ 1008.85 (d) ₹ 1.08

Sol. (a) Seventy six rupees and fifty paise
(b) One hundred sixty-five rupees and twenty five paise
(c) One thousand eight rupees and eighty-five paise
(d) One rupee and eight paise

Q.3. Convert the following into paise :

(a) ₹ 85.05 (b) ₹ 5
(c) ₹ 10.20 (d) ₹ 29.85 (e) ₹ 0.50

Sol. (a) ₹85.05 = 85.05 × 100 P
= 8505 P
(b) ₹ 5 = 5 × 100 P = 500 P
(c) ₹ 10.20 = 10.20 × 100 P = 1020 P
(d) ₹ 29.85 = 29.85 × 100 P = 2985 P
(e) ₹ 0.50 = 0.50 × 100 P = 50 P

Q.4. Convert the following into paise :

(a) 39 rupees 8 paise (b) 62 rupees
(c) 3 rupees 55 paise

Sol. (a) 39 rupees 8 paise
= ₹ 39.08 = 39.08 × 100 P = 3908 P
(b) 62 rupees = ₹ 62 = 62 × 100 P = 6200 P
(c) 3 rupees 55 paise = ₹ 3.55 = 3.55 × 100 P
= 355 P

Q.5. Convert the following into rupees :

(a) 506 paise (b) 1355 paise
(c) 4789 paise

Sol. (a) 506 paise = ₹ 506/100 = 5 rupees 6 paise

$$\begin{array}{r} 100\overline{)\ 506\ }(5 \\ \underline{500} \\ \underline{6} \end{array}$$

(b) 1355 P = ₹ 1355/100 = 13 rupees 55 P

$$\begin{array}{r} 100\overline{)1355}(13 \\ \underline{100} \\ 355 \\ \underline{300} \\ \underline{55} \end{array}$$

(c) 4789 P = 4789/100 = 47 rupees 89 P

$$\begin{array}{r} 100\overline{)4789}(47 \\ \underline{400} \\ 689 \\ \underline{700} \\ \underline{89} \end{array}$$

Exercise 17.2

Q.1. Add the following amounts.

(a)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ 647 & . & 50 \\ 408 & . & 25 \\ +\ 36 & . & 85 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ 268 & . & 45 \\ 376 & . & 38 \\ +439 & . & 62 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ 4654 & . & 09 \\ 860 & . & 56 \\ +\ 78 & . & 33 \\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ \text{②①} & & \text{①} \\ 647 & . & 50 \\ 408 & . & 25 \\ +\ 36 & . & 85 \\ \hline 1092 & . & 60 \\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ \text{①②①} & & \text{①} \\ 268 & . & 45 \\ 376 & . & 38 \\ +439 & . & 62 \\ \hline 1084 & . & 45 \\ \hline \end{array}$$

(c)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ \text{①①①} & & \text{①} \\ 4654 & . & 09 \\ 860 & . & 56 \\ +\ 78 & . & 33 \\ \hline 5592 & . & 98 \\ \hline \end{array}$$

Q.2. Find the difference.

(a)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ 705 & . & 30 \\ -\ 78 & . & 56 \\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ 356 & . & 50 \\ -\ 298 & . & 75 \\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{rcl} \text{₹} & & \text{P} \\ 2000 & . & 00 \\ -\ 625 & . & 48 \\ \hline \\ \hline \end{array}$$

Sol. (a)

₹ P

⑭ ⑫

⑥⑩④ ②⑩

705 . 30

− 78 . 56

36 . 74

(b)

₹ P

⑭⑮ ⑭

②④⑤ ④⑩

356 . 50

− 298 . 75

057 75

(c)

₹ P

⑨⑨⑨ ⑨

①⑩⑩⑩ ⑩⑩

2000 . 00

− 625 . 48

1374 . 52

Q.3. Add :

(a) ₹1546.35; ₹167.85; ₹6.54 and ₹0.56.

(b) ₹3541.90; ₹2053.08; ₹162.06 and ₹0.01

Sol. (a)

₹ P

①②② ②

1546 . 35

167 . 85

6 . 54

+ 0 . 56

1721 . 30

(b)

₹ P

① ① ②

3541 . 90

2053 . 08

162 . 06

+ 0 . 09

5757 . 13

Q.4. Monika buys a pencil for ₹6.40; an eraser for ₹8.65 and an ink pen for ₹57.75. What is the total amount she has to pay to the shopkeeper?

Sol.

②①①

Price of Pencil = ₹ 6.40

Price of eraser = ₹ 8.65

Price of ink pen =+ ₹ 57.75

Total amount = ₹ 72.80

Q.5. Ridway bought biscuits for ₹106.65; bread for ₹27.45 and toffees for ₹8.95 from a confectionery shop. She gave a 500-rupee note to the shopkeeper. What amount does she get back?

Sol.

②②①

Price of biscuits = ₹ 106.65

Price of bread = ₹ 27.45

Price of toffees =+ ₹ 8.95

Total amount = ₹ 143.05

⑨⑨⑨

④⑩⑩⑩⑩

Amount given = ₹ 500.00

Total amount = ₹ − 143.05

Remaining amount = ₹ 356.95

Q.6. Kumkum bought a shirt for ₹1265.85; trousers for ₹896.45 and an underwear for ₹78.05. She gave ₹2500 to the shopkeeper. How much money did she get back?

Sol.

①②②① ①

Price of shirt = ₹ 1265.85

Price of trousers = ₹ 896.45

Price of underwear =+ ₹ 78.05

Total amount = ₹ 22.40.35

④⑨⑨ ⑨⑩

Amount given = ₹ 2500.00

Total amount = ₹ 2240.35

Remaining amount = ₹ 259.65

Exercise 17.3

Q.1. Find each of the following products :

(a) ₹ 45.85 × 8 (b) ₹ 90.76 × 45

(c) ₹ 414.65 × 16 (d) ₹ 246.06 × 20

Sol. (a)

45.85

× 8

366.80

(b)

90.76

× 45

45380

36 304 ×

40 8420

(c)

414.65

× 16

2487 90

4146 5×

6634.40

(d)

246.06

× 20

000 00

4921 2×

4921.20

Q.2. Divide :

(a) ₹ 52.50 by 6 (b) ₹ 299.04 by 8

(c) ₹ 490.80 by 12 (d) ₹ 1056.60 by 10

Sol. (a) ₹ 52.50 ÷ 6

= ₹ 8.75

6)52.50(8.75

48↓

45

42↓

30

30

×

(b) ₹ 299.04 ÷ 8

= ₹ 37.38

8)299.04(37.38

24↓

59

56↓

30

24↓

64

64

×

(c) ₹ 490.89 ÷ 12

= ₹ 40.9075

$$\begin{array}{r}
12\,)\,490.89\,(\,40.9075 \\
-\,48\downarrow\downarrow \\
\hline
108 \\
-\,108\downarrow \\
\hline
90 \\
-\,84 \\
\hline
60 \\
60 \\
\hline
\times \\
\hline
\end{array}$$

(d) ₹ 1056.60 ÷ 10

= ₹ 105.66

$$\begin{array}{r}
10\,)\,1056.60\,(\,105.66 \\
-\,10\downarrow\downarrow \\
\hline
56 \\
-\,50 \\
\hline
66 \\
-\,60 \\
\hline
60 \\
-\,60 \\
\hline
\times \\
\hline
\end{array}$$

Q.3. If the cost of 1 kg rice is ₹ 63.50, find the cost of 15 kg of rice.

Sol. Cost of 1 kg rice = ₹ 63.50

Cost of 15 kg rice = ₹ 63.50 × 15

= ₹ 952.50

$$\begin{array}{r}
6\,3\,5\,0 \\
\times\,1\,5 \\
\hline
3\,1\,7\,5\,0 \\
6\,3\,5\,0\,\times \\
\hline
9\,5\,2\,5\,0 \\
\end{array}$$

Q.4. A calculator costs ₹ 928.45. Find the cost of 16 such calculators.

Sol. Cost of 1 calculator = ₹ 928.45

Cost of 16 calculators = ₹ 928.45 × 16

= ₹ 14855.20

$$\begin{array}{r}
9\,2\,8\,4\,5 \\
\times\,1\,6 \\
\hline
5\,5\,7\,0\,7\,0 \\
9\,2\,8\,4\,5\,\times \\
\hline
1\,4\,8\,5\,5\,2\,0 \\
\end{array}$$

Q.5. If the cost of 10 kg of potatoes is ₹ 103.50, find the cost of 1 kg of potatoes

Sol. Cost of 10 kg potatoes = ₹ 103.50

Cost of 1 kg potatoes = ₹ 103.50 ÷ 10

= ₹ 10.35

$$\begin{array}{r}
10\,)\,10350\,(\,1035 \\
-\,10\downarrow\downarrow \\
\hline
35 \\
-\,30 \\
\hline
50 \\
-\,50 \\
\hline
\times \\
\hline
\end{array}$$

Q.6. If Mona gets ₹ 320.25 as pocket money each week, how much money does she get daily?

Sol. Pocket money of one week = ₹ 320.25

Pocket money of 7 days = ₹ 320.25

Pocket money of 1 day = ₹ 320.25 ÷ 7

₹ = 45.75

$$\begin{array}{r}
7\,)\,32025\,(\,4575 \\
-\,28\downarrow \\
\hline
40 \\
-\,35\downarrow \\
\hline
52 \\
-\,49\downarrow \\
\hline
35 \\
-\,35 \\
\hline
\times \\
\hline
\end{array}$$

Exercise 17.4

Q.1. Prepare the bill for shopping at different venues :

(a) Stationery shop : Notebooks : ₹ 20.50, Pencils : ₹ 42.75 Eraser : ₹ 4.00, Books : ₹ 54.25

(b) Vegetable shop : Potatoes : ₹ 22.75, Tomatoes : ₹ 15.00, Peas : ₹ 41.00, Ginger : ₹ 9.55

Sol.

Items	Rate	Quantity	Amount
Notebooks	₹ 20.50	1 pcs	₹ 20.50
pencils	₹ 42.75	1 pcs	₹ 42.75
Eraser	₹ 4.00	1 pcs	₹ 4.00
Books	₹ 54.25	1 pcs	₹ 54.25
	Total amount		₹ 121.50
Potatoes	₹ 22.75	1 kg	₹ 22.75
Tomatoes	₹ 15.00	1 kg	₹ 15.00
Peas	₹ 41.00	1 kg	₹ 41.00
Ginger	₹ 9.55	1 kg	₹ 9.55
	Total amount		₹ 88.30

Q.2. Following are the prices of items listed in the rate list given below.

BIG BAZAAR

Item	**Quantity**	**Price**
Rice	1 kg	₹ 40
Sugar	1 kg	₹ 25
Washing Powder	1 kg	₹ 75
Atta	1 kg	₹ 15
Butter	500 gm	₹ 80

Prepare a bill for each of the following purchases :

(a) 2 kg of sugar, 3 kg atta and 500 gm butter.

(b) 5 kg of rice, 5 kg sugar, 1 kg washing-powder

Sol.

(a)	Items	Rate	Quantity	Amount
	Sugar	₹25/kg	2 kg	₹ 50
	Atta	₹15/kg	3 kg	₹ 45
	Butter	₹80/500 gm	500 gm	₹ 80
			Total Amount	₹ 175
(v)	Rice	₹40/ 1 kg	5 kg	₹ 200
	Sugar	₹25/ 1 kg	5 kg	₹ 125
	Washing powder	₹75/ 1 kg	1 kg	₹ 75
			Total Amount	₹ 400

Q.3. Find the amount received in each case as change.

Paid

Purchase

Notebook	– ₹ 60.35
School bag	– ₹ 268.75
Tiffin box	– ₹ 27.90
Umbrella	– ₹ 110.15
Geometry box	– ₹ 55.65
Pen	– ₹ 20.00

Sol. Total amount to be Paid = ₹60.35 + ₹268.75 + ₹27.90 + ₹110.15 + ₹55.65 + ₹20.00

= ₹542.80

⑨⑨⑨
①⑩⑩⑩⑨⑩
Given amount = ₹ 2000.00
Paid amount = –₹ 542.86
Remaining amount = ₹ 1457.14

Q.4. Grandfather brought dresses for his grandchildren for ₹ 940.35, ₹ 824.40 and ₹ 535.45. How much money did he spend in all?

Sol. Amount for dresses

= ₹ 940.35 + ₹ 824.40 + ₹ 535.45

= ₹ 2300.20

Q.6. Complete the following bill :

Raj Provision Store
Malviya Nagar, Jaipur

S.No. 226 Date : 30.11.18

Name : ____________

Quantity	Description	Rate	Amount
2 kg	Ghee	₹725.45 per kg	
10	Soap-cake	₹15.50 per piece	
5 kg	Rice	₹81.50 per kg	
3 kg	Sugar	₹48.50 per kg	
		Grand Total =	

Sol. Amount for Ghee

₹ 72.45 × 2 = ₹ 1450.90

Amount for soap-cake

₹ 15.50 × 10 = ₹ 155.00

Amount for Rice ₹ 81.50 × 5 = ₹ 407.50

Amount for Sugar 48.50 × 3 = ₹ 145.50

Total amount to be paid

= ₹1450.90 + ₹155.60 ₹407.50 + ₹145.50

= ₹ 2159.5

Must Practice Exercise 17

Q.1. Write the following amounts in words :

(a) ₹ 45.70 (b) ₹ 0.70 (c) ₹ 500.35

Sol. (a) Forty five rupees and seventy paise

(b) Seventy paise

(c) Five hundred rupees and thirty-five

Q.2. Express each of the following amounts in figures (in long and short form both) :

(a) Ninety-six rupees and twenty-two paise.

(b) Two hundred seventy-two rupees and forty-five paise.

Sol. (a) 96 rupees 22 paise ₹96.22

(b) 200 rupees 45 paise ₹ 272.45

Q.3. Convert each of the following amounts into paise :

(a) 20 rupees 20 paise (b) ₹ 50.08

Sol. (a) 20 rupees 20 paise

= ₹ 20.20

= 20.20 × 100 P

= 2020 P

(b) ₹ 50.08

= 50.08 × 100 P

= 5008 P

Q.4. Convert each of the following amounts in rupees :

(a) 88 p (b) 347 p

(c) 3658 p (d) 8347 p

Sol. (a) 88 P = ₹ 88/100 = ₹ 0.88

(b) 347 P = ₹ 347/100 = ₹ 3.47

(c) 3658 P = ₹ 3658/100 = ₹ 36.58

(d) 8347 P = ₹ (8347 ÷ 100)

= ₹ 83.47

Q.5. Add the following :

(a) ₹ 225.20 and ₹ 478.75

(b) ₹ 120.50, ₹ 85.78 and ₹ 275.78

Sol. (a)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ \textcircled{1}\textcircled{1} & & \\ 225 & . & 20\\ +478 & . & 75\\ \hline 703 & . & 95\\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ \textcircled{1}\textcircled{1}\textcircled{2} & & \textcircled{1}\\ 120 & . & 50\\ 85 & . & 78\\ +275 & . & 78\\ \hline 482 & . & 06\\ \hline \end{array}$$

Q.6. Change into decimal and add the following 257 rupees 75 paise, 59 rupees 6 paise and 6829 rupees

Sol.
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ \textcircled{1}\textcircled{1}\textcircled{2} & & \textcircled{1}\\ 227 & . & 75\\ 59 & . & 06\\ +6829 & . & 00\\ \hline 7115 & . & 81\\ \hline \end{array}$$

Q.7. A shopkeeper gave the sugar for 23 rupees 50 paisa and wheat of 18 rupees 75 paisa. What is the total amount of goods he delivered?

Sol.
$$\begin{array}{lcl} & & \textcircled{1}\textcircled{1}\\ \text{Price of sugar} & = & \text{₹}\,23.50\\ \text{Price of wheat} & = & \text{₹}\,18.75\\ \hline \text{Total amount} & = & +\,\text{₹}\,42.25\\ \hline \end{array}$$

Q.8. Solve these :

(a)
$$\begin{array}{rr} \text{₹} & \text{P}\\ 22 & 60\\ +\ 6 & 70\\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{rr} \text{₹} & \text{P}\\ 40 & 50\\ +\ 50 & 50\\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{rr} \text{₹} & \text{P}\\ 213 & 90\\ +22 & 60\\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rr} \text{₹}\,\textcircled{1} & \text{P}\\ 22 & 60\\ +6 & 70\\ \hline 29 & 30\\ \hline \end{array}$$

(b)
$$\begin{array}{rr} \text{₹}\,\textcircled{1} & \text{P}\\ 40 & 50\\ +50 & 50\\ \hline 91 & 00\\ \hline \end{array}$$

(c)
$$\begin{array}{rr} \text{₹}\,\textcircled{1} & \text{P}\\ 213 & 90\\ +22 & 60\\ \hline 236 & 50\\ \hline \end{array}$$

Q.9. Subtract the following :
(a) ₹ 79.50 from ₹ 90.45
(b) ₹ 276.25 from ₹ 293

Sol. (a)
$$\begin{array}{rr} \text{₹}\,\textcircled{9} & \text{P}\\ \textcircled{8}\textcircled{10} & \textcircled{14}\\ 90 & 45\\ -79 & 50\\ \hline 10 & 95\\ \hline \end{array}$$

(b)
$$\begin{array}{rr} \text{₹}\,\textcircled{12} & \textcircled{9}\text{P}\\ \textcircled{8}\,\textcircled{2} & \textcircled{10}\textcircled{10}\\ 293 & 00\\ -276 & 25\\ \hline 16 & 75\\ \hline \end{array}$$

Q.10. Find the following products :

(a)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 21 & . & 35\\ & & \times 8\\ \hline \\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 518 & . & 25\\ & & \times 15\\ \hline \\ \hline \end{array}$$

(c)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 825 & . & 15\\ & & \times 12\\ \hline \\ \hline \end{array}$$

Sol. (a)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 21 & . & 35\\ & & \times 8\\ \hline 170 & . & 80\\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 518 & . & 25\\ & & \times 15\\ \hline 2591 & & 25\\ 5182 & & 5\times\\ \hline 7773 & . & 75\\ \hline \end{array}$$

(c)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 825 & . & 15\\ & & \times 12\\ \hline 1650 & & 30\\ 8251 & & 5\times\\ \hline 9901 & . & 80\\ \hline \end{array}$$

Q.11. Multiply :
(a) 10 Rs. 40 Paisa × 9
(b) 32 Rs. 70 Paisa × 8

Sol. (a)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 10 & . & 40\\ & & \times 9\\ \hline 93 & . & 60\\ \hline \end{array}$$

(b)
$$\begin{array}{rcl} \text{₹} & & \text{P}\\ 32 & . & 70\\ & & \times 8\\ \hline 261 & . & 60\\ \hline \end{array}$$

Q.12. Divide the following :
(a) ₹ 610.45 by 5 (b) ₹ 965.80 by 22

Sol. (a) ₹ 610.45 ÷ 5 = ₹122.09

$$\begin{array}{r} 5\overline{)610.45}(122.09\\ -5\downarrow\\ \hline 11\\ -10\downarrow\\ \hline 10\\ -10\downarrow\downarrow\\ \hline 45\\ -45\\ \hline \times\\ \hline \end{array}$$

(b) ₹ 965.80 ÷ 22 = ₹ 43.90

```
22)965.80(43.90
  - 88↓|
    85 ↓
  - 66↓
    198
  - 198
      ×
```

Q.13. If amount of one sack of sugar is 1276 rupees 75 paise then how much amount will be for 5 sacks of sugar?

Sol. Price of one sack of sugar = ₹ 1276.75

Price of 5 sack of sugar = ₹ 1276.75 × 5

= ₹ 6383.75

```
 1 2 7 6 . 7 5
         × 5
 -------------
 6 3 8 3 . 7 5
```

Q.14. If the cost of a pen is ₹ 35.35, then find the cost of 32 such pens.

Sol. Cost of one pen = ₹ 35.35

Cost of 32 pens = ₹ 35.35 × 32

= ₹ 1131.20

```
    3 5 . 3 5
      × 3 2
  -----------
    7 0 7 0
  1 0 6 0 5 ×
  -----------
  1 1 3 1 . 2 0
```

Q.15. On the occasion of Independence Day, prize money of ₹ 868 is distributed among 8 children equally, then how much amount each child will get?

Sol. Price of prize = ₹ 868

No. of children = 8

Price of prize for each children

= ₹ 868 ÷ 8 = ₹ 108.50

```
8)868 (108.5
  8↓↓
   68
   64
    40
    40
     ×
```

Q.16. My father went to the market for shopping with ₹ 600. He purchased fruits worth ₹ 122.35, vegetables worth ₹ 189.75, groceries worth ₹ 135.75 and some chocolates worth ₹18.50. How much money was left with my father?

Sol. Father has money = ₹ 600

Purchasing

		①②②①
Fruits	=	₹ 122.35
Vegetables	=	₹ 189.75
Groceries	=	₹ 135.75
Chocolates	=	₹ 18.50
Total amount		₹ 466.35

Amount lefted

= ₹ 600 – ₹ 466.35

= ₹ 133.65

Click Type Questions

Q.1. Currency of India is

(a) rupee (b) deenar

(c) dollar (d) pound

Sol. (a) rupee

Q.2. In number of 25 paise coins in ₹ 100 is :

(a) 4 (b) 40 (c) 100 (d) 400

Sol. (d) No. of coins = $\frac{₹\ 100}{25\text{ P}}$

$= \frac{\overset{4}{\cancel{100}} \times 100\text{ P}}{\cancel{25}\text{ P}}$ 400

Q.3. How many paise are there in 2 rupees?

(a) 100 (b) 200 (c) 300 (d) 400

Sol. (b) ₹2 = 2 = 2 × 100 P = 200 P

Q.4. The number of 50 rupee notes in ₹1000 is :

(a) 10 (b) 20 (c) 100 (d) 200

Sol. (b) No. of Notes = $\frac{₹\ 1000}{50} = \frac{₹\ \overset{20}{\cancel{100}}}{\cancel{5}} = 20$

Q.5. 12 rupees and 25 paise is written as :

(a) ₹ 1225 (b) ₹ 12.25

(c) ₹ 1.225 (d) ₹ 122.5

Sol. (b) ₹12.25

Q.6. How many rupees are there in 500 paise ?

(a) 5 (b) 4 (c) 3 (d) 2

Sol. (a) 500 P = ₹ 500/100 = ₹ 5

Q.7. Tanushri divides 100 rupees in his four children, how many rupees each child gets?

(a) 20 (b) 25 (c) 40 (d) 50

Sol. (b) ₹ 100 ÷ 4 = ₹ 25

Q.8. Indu bought 4 pencils at ₹ 3.30 each and 2 erasers at ₹ 1.85 each. What is the total amount she has to pay for all the items?

(a) ₹ 14.75 (b) ₹ 15.85
(c) ₹ 16.40 (d) ₹ 16.90

Sol. (a) Cost of pencils = ₹ 3.30 × 4
= ₹ 13.20
Cost of erasers = ₹ 1.85 × 2
= ₹ 3.70
Total amount = ₹ 13.20
+ ₹ 3.70
₹ 16.90

Q.9. If the cost of 6 litres of kerosin is ₹ 388.20, what is the cost of 1 litre of kerosin?

(a) ₹ 46.50 (b) ₹ 47.50
(c) ₹ 64.70 (d) ₹ 49.40

Sol. (c) ₹ 388.20 ÷ 6
= ₹ 64.70

6)388.20(64.70
– 36↓
28
– 24↓
42
– 42
×

Q.10. Gaurav sold 18 biscuit packets for ₹ 22.50. The cost of each packet is :

(a) ₹ 1.15 (b) ₹ 1.25
(c) ₹ 1.45 (d) ₹ 1.65

Sol. (b) ₹ 22.50 ÷ 18
= ₹ 1.25

18)22.50(1.25
– 18↓
45
– 36
90
– 90
×

Chapter-18 Data Handling

Exercise 18.1

Q.1. In each of the following questions, represent the given information through a pictograph. First choose a symbol (a picture) a represent a certain number of items.

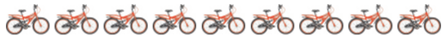
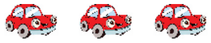
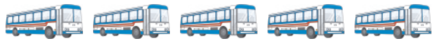
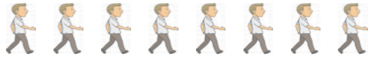
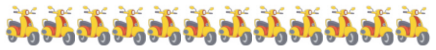
(a) Number of students using different modes of transport to reach the school.

Bicycle	Car	Bus	Walking	Scooter
54	18	30	48	72

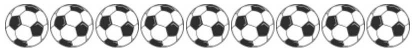
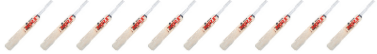
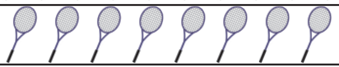
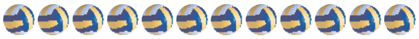
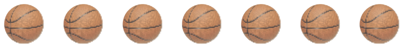
(b) Number of students playing different games in the school.

Football	Cricket	Badminton	Vollleyball	Basketball
45	50	40	60	35

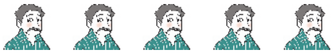
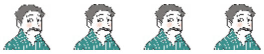
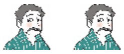
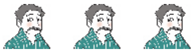
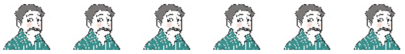
Sol. (a)

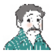
One symbol = 6 objects	
Bycle	
Car	
Bus	
Walking	
Scooter	

(b)

One symbol = 5 objects	
Football	
Cricket	
Badminton	
Vallyball	
Basketball	

Q.2. The following pictograph shows the number of staff members, using different brands of cars to travel to office.

Maruti	
Hyundai	
Toyota	
Ford	
Honda	

One  represent 10 staff members.

Carefully, look at the pictograph and answer the following questions :

(a) How many staff members are owners of the Honda brand of cars?
(b) Which is the least popular brand of cars among the staff members?
(c) What is the difference between the number of staff members who own Hyundai brand of cars and those who own Ford brand of cars?

(d) Arrange the given brands of cars in increasing order of their popularity among the staff members.

Sol. (a) 60 (b) Toyota

(c) 10

(d) Toyota < Ford < Hyundai < Maruti < Honda

Q.3. The pictograph given below represent the basket of fruits sold by a fruit seller during the four weeks of May.

First week	🧺 🧺 🧺 🧺
Second week	🧺 🧺 🧺 🧺
Third week	🧺 🧺
Fourth week	🧺 🧺 🧺 🧺 🧺 🧺 🧺 🧺

One 🧺 full basket represent 50 items.

Answer the following questions :

(a) In which week did the fruit seller sell the maximum number of fruits?

(b) How many baskets of fruits were sold during the whole month?

(c) In which week did the fruit seller sell the minimum number of fruits?

Sol. (a) Fourth (b) 18 (c) Third.

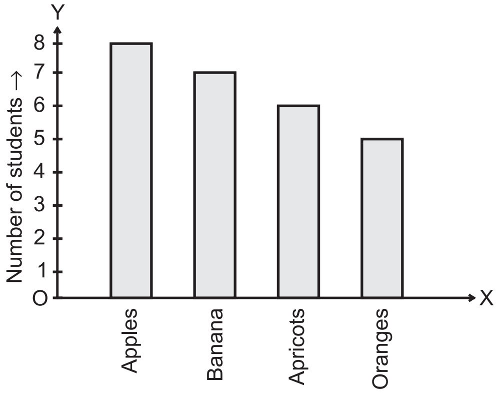
Exercise 18.2

Represent the given information through a bar graph.

Q.1. Number of different fruits in a fruit basket is given in the following table :

Fruit	Apples	Bananas	Apricots	Oranges
Number of fruits	8	7	6	5

Sol.



Q.2. The minimum temperature of a city from Monday to Saturday was as follows :

Days	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
Temperature	7°	9°	9°	14°	13°	8°

Show the above data by a bar-graph and answer the following questions from the graph :

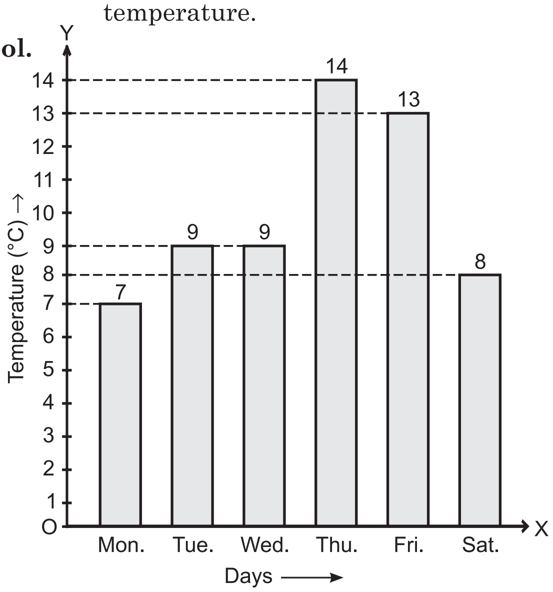
(a) On which day was the temperature maximum?

(b) On which day was the temperature minimum?

(c) On which days was the temperature same?

(d) Find the average of all six days temperature.

Sol.



(a) Thursday (b) Monday

(c) Tuesday and Wednesday

(d) 10°

Q.3. Make the tally mark list of marks obtained by 12 children of a class in the first test :

4, 6, 7, 4, 5, 6, 3, 7, 2, 6, 8, 6

Sol.

Marks	4	6	7	4	5	6	3	7	2	6	8	6
Tally marks	𝍷𝍷𝍷𝍷	𝍸𝍷	𝍸𝍷𝍷	𝍷𝍷𝍷𝍷	𝍸	𝍸𝍷	𝍷𝍷𝍷	𝍸𝍷𝍷	𝍷𝍷	𝍸𝍷	𝍸𝍷𝍷𝍷	𝍸𝍷

Q.4. Looking at the below table of favourite T.V. serial which is watched by 20 children of class 4. Answer the following questions :

Favourite	**Tally**
Cartoon	𝍸 𝍸 𝍷𝍷
Movie	𝍸 𝍷𝍷𝍷

(a) How many children like to watch Cartoon on T.V.?

(b) Which program is least liked by the children?

Sol. (a) 12 Children (b) Movie

Practice Exercise 18

Q.1. Mohan and Sohan tossed a coin 10 times. The following table shows how many times they got heads and tails. Look at the table carefully and answer the following questions.

Name	**Head**	**Tail**
Mohan	6	4
Sohan	3	7

(a) How many times did Sohan get heads?

(b) How many times did Mohan get tails?

(c) Who had the most tails?

Sol. (a) 3 (b) 4 (c) Sohan

Q.2. Answer by looking at the pictograph :

☺ = one child

Name of Bird	**Children like**
Sparrow	☺ ☺ ☺ ☺ ☺ ☺
Cock	☺ ☺ ☺ ☺

(a) How many children like the sparrow most?

(b) Which bird is least liked?

Sol. (a) 6 children (b) Cock

Q.3. Read the following tally mark table of favourite subjects of 23 students of class five.

Answer for the following questions by :

Subject	**Hindi**	**Maths**	**English**	**Social Science**	**Sanskrit**	**General Knowledge**
Telly-mark	𝍷𝍷𝍷	𝍸𝍷𝍷	𝍷𝍷𝍷𝍷	𝍷𝍷𝍷	𝍷𝍷	𝍷𝍷𝍷𝍷

(a) Which subject is liked most by the children?

(b) Which subjects are equally liked by the children?

Sol. (a) Maths (b) Hindi and Social Science

Q.4. Observe the following pictograph and answer the following questions :

☺ = One child

Vegetable	**Favorite vegetable of children**
Brinjal	☺ ☺ ☺
Tomato	☺ ☺ ☺ ☺
Potato	☺ ☺ ☺ ☺ ☺
Lady finger	☺ ☺ ☺ ☺ ☺ ☺

(a) How many children like of potato?

(b) Which vegetable is liked most by the children?

(c) Which vegetable is liked least by the children?

Sol. (a) 5 Children (b) Lady finger

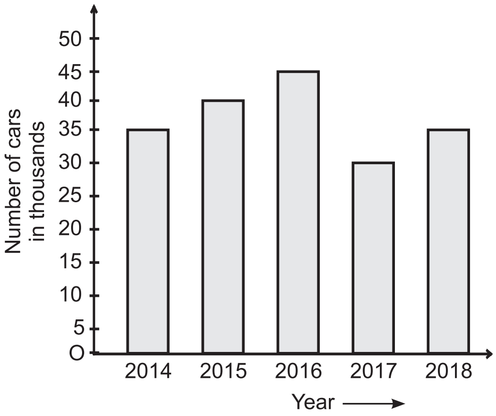
(c) Brinjal

Q.5. Number of cars of a particular model produced by a factory between 2014 and 2018.

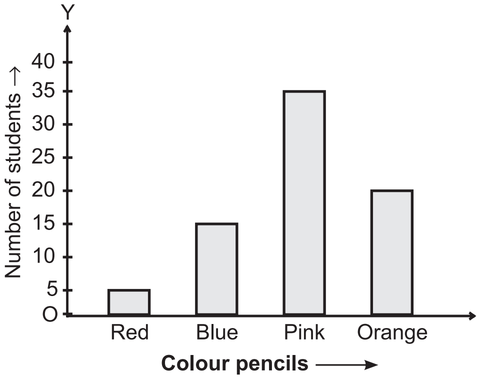
2014	2015	2016	2017	2018
35,000	40,000	45,000	30,000	35,000

Represent the above information by a bar graph.

Sol.



Q.6. The following bar graph represents the number of various colour pencils used by 80 students.



Answer the following questions :

(a) How many students use the red colour pencil?

(b) How many students use the orange colour pencil?

(c) Which colour pencil is used most?

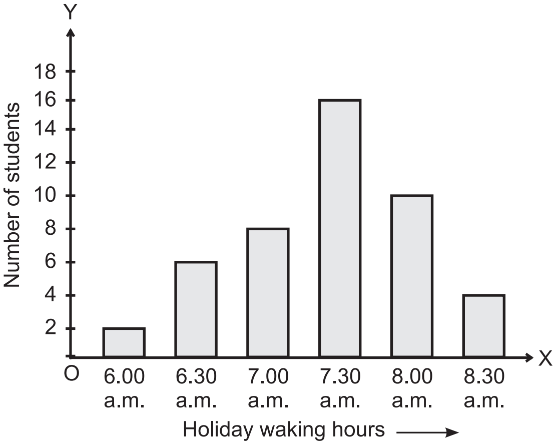
(d) Which colour pencil is used least?

Sol. (a) 5 (b) 20

(c) Pink (d) Red

Click Type Questions

Observe the graph carefully and tick (✔) the correct answer.



Q.1. What is at the horizontal scale in the graph, given in the graph?

(a) Time (b) Number

(c) a.m. (d) None of these

Sol. (c) Horizontal axis is OX.

Q.2. What is the total number of students in class-IV?

(a) 40 (b) 24

(c) 44 (d) 46

Sol. (d) Sum = 2 + 6 + 8 + 16 + 10 + 4 = 46

Q.3. At what time do the most of the students get up on Holiday?

(a) 7 : 00 a.m. (b) 7 : 30 a.m.

(c) 8 : 00 a.m. (d) 8 : 30 a.m.

Sol. (b)

Q.4. How many students get up at 6 : 30 a.m. on Holiday?

(a) 10 (b) 6

(c) 8 (d) 4

Sol. (b)

Q.5. At what time do the least of the students get up on Holiday?

(a) 6 : 00 a.m. (b) 6 : 30 a.m.

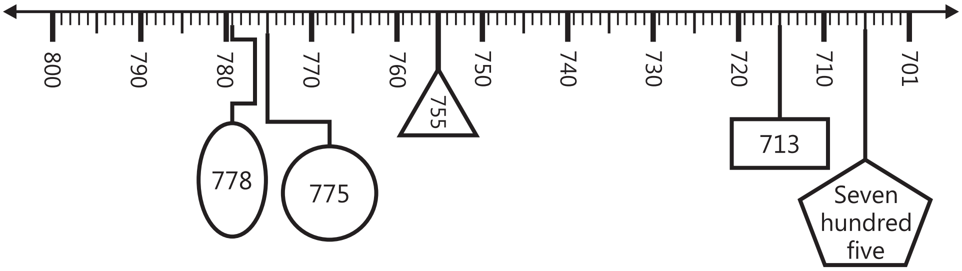
(c) 7 : 00 a.m. (d) 8 : 30 a.m.

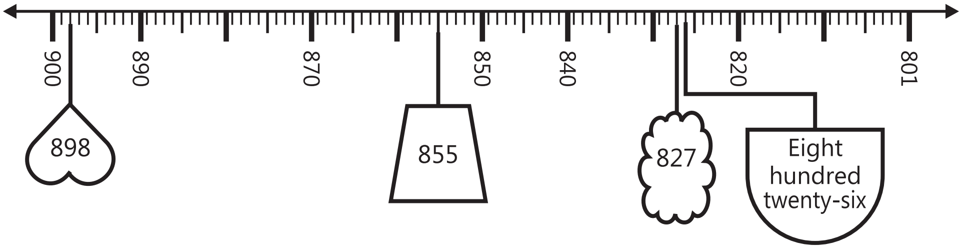
Sol. (a)

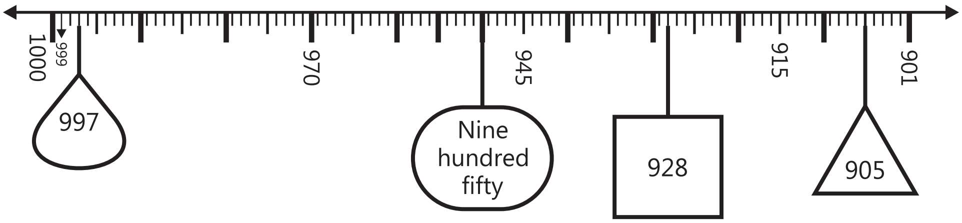
Fun-Zone

(Hints and Solutions)

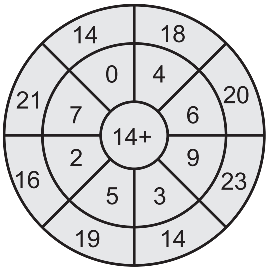
Chapter 3

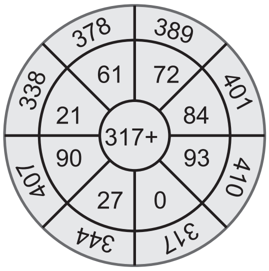

800
790
780
770
760
750
740
730
720
710
701
778
775
755
713
Seven hundred five

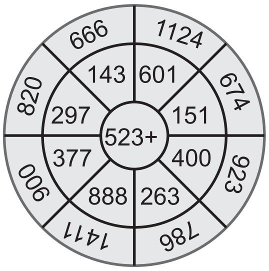

900
890
870
850
840
820
801
898
855
827
Eight hundred twenty-six

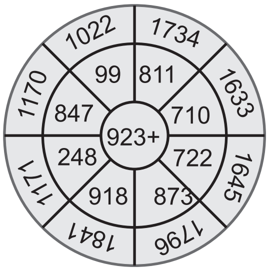

1000
999
970
945
915
901
997
Nine hundred fifty
928
905

Chapter 5

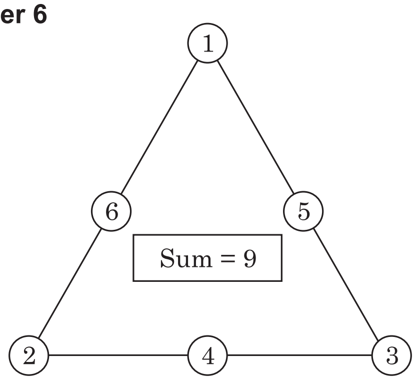

14+
0
4
6
9
3
5
2
7
14
18
20
23
14
19
16
21


317+
61
72
84
93
0
27
90
21
378
389
401
410
317
344
407
338

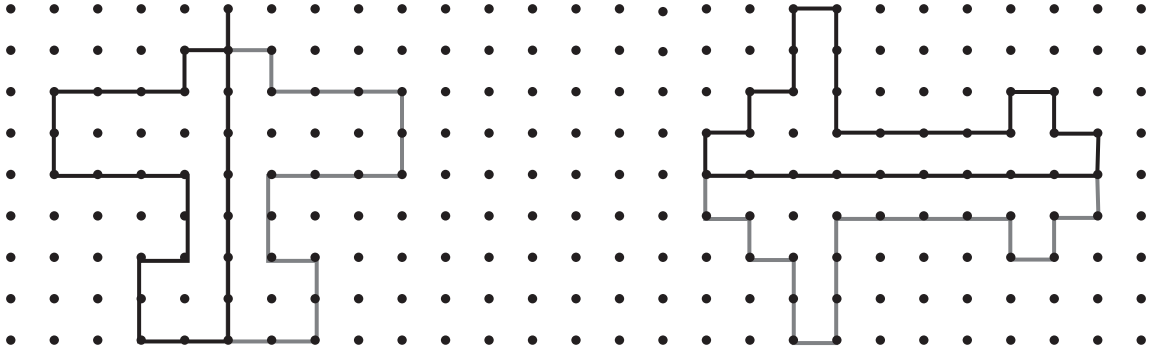

523+
143
601
151
400
263
888
377
297
666
1124
674
923
786
1411
900
820


923+
99
811
710
722
873
918
248
847
1022
1734
1633
1645
1796
1841
1771
1170

Chapter 6

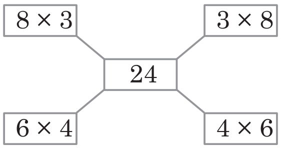

1
6
5
Sum = 9
2
4
3

Chapter 9

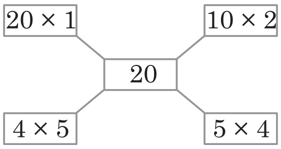


Chapter 10

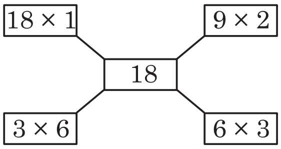
1.


8 × 3
3 × 8
24
6 × 4
4 × 6

2.


20 × 1
10 × 2
20
4 × 5
5 × 4

3.


18 × 1
9 × 2
18
3 × 6
6 × 3

1.

		6	2	7
		×	2	4
	2	5	0	8
1	2	5	4	0
1	5	0	4	8

2.

		4	2	6
		×	7	8
	3	4	7	8
2	9	8	2	0
3	3	2	2	8

3.

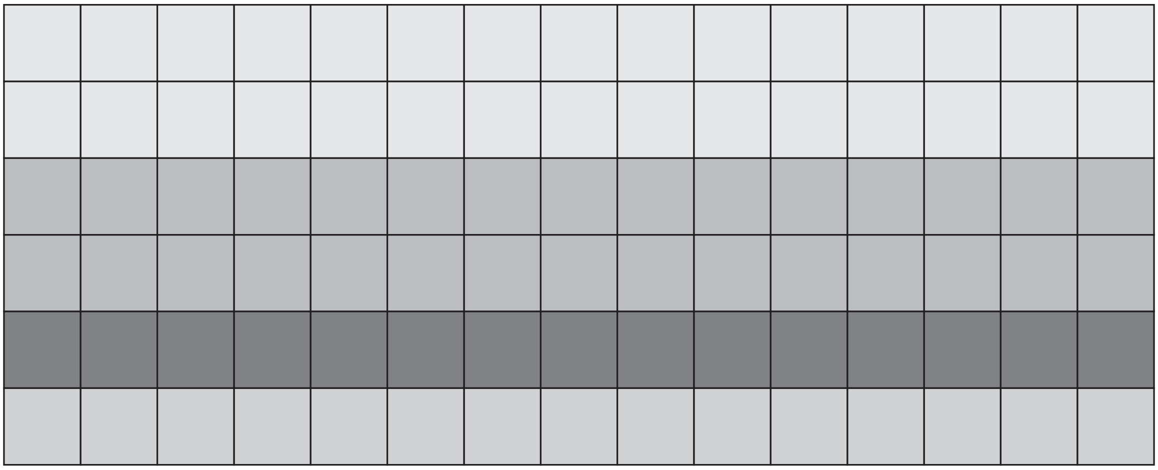
		6	7
	×	1	9
	6	0	3
	6	7	0
1	2	7	3

Chapter 11

	2	3	4	5	6	7	8	9
552	Yes	Yes	Yes	No	Yes	No	Yes	No
957	No	Yes	No	No	No	No	No	No
952	Yes	No	No	No	No	Yes	Yes	No
350	Yes	No	No	Yes	No	Yes	No	No

Chapter 13

Colour the following paper, such that 1/3 of its is blue, 2/6 of it is red, 1/6 of its is green and and rest is black



Count money for the set of books.

Hindi	:	₹ 123.80
English	:	₹ 139.50
Maths	:	₹ 113.40
Science	:	₹ 115.75
Social Science	:	₹ 153.00

Now, the teacher should asks the following questions from children.

(a) What is the total cost of all the books?

(b) What is the cost of the Maths in rupees and paise separately?

(c) Which book is cheaper-Science or Maths and by how much?

(d) Which book is most expensive?

Sol. (a) Total cost = ₹ 123.80 + ₹ 139.50 + ₹ 113.40 + ₹ 115.75 + ₹ 153.00 = ₹ 645.45

(b) 113 rupees and 40 paise

(c) Maths, ₹ 115.75 – ₹ 113.40 = ₹ 2.35

(d) Social Science

Class 5

Chapter 1 : Numbers

Exercise 1.1

1. (a) 22,66,938 : Twenty-two lakh sixty-six thousand nine hundred thirty-eight

(b) 12,61,62,100 : Twelve crore sixty-one lakh sixty-two thousand one hundred

(c) 87,109,400 : Eighty-seven million one hundred nine thousand four hundred

2. (a) Seventeen crore twelve lakh six thousand three hundred fifty-nine : 17,12,06,359

(b) Sixty million three hundred eighty-one thousand nine hundred ten : 60,381,910

3. (a) 651,178,581 : 65,11,78,581

Sixty-five crore eleven lakh seventy-eight thousand five hundred eighty-one

(b) 81,005,926 : 8,10,05,926

Eight crore ten lakh five thousand nine hundred twenty-six

(c) 118,505,001 : 11,85,05,001

Eleven crore eighty-five lakh five thousand one

4. (a) 261730019 : 261, 730,019

Two hundred sixty-one million seven hundred thirty thousand nineteen

(b) 61219479 : 61,219,479

Sixty-one million two hundred nineteen thousand four hundred seventy nine

(c) 50057312 : 50,057,312

Fifty million fifty-seven thousand three hundred twelve

5. (a) Thirty-two lakh sixty-nine thousand five hundred thirty : 32,69,530

32,69,530 : 3,269,530

(b) Nine crore fifty-seven lakh nine thousand sixty-eight : 9,57,09,068

9,57,09,068 : 95,709,068

6. (a) Four million four hundred sixty-two thousand two hundred five : 4,462,205

4,462,205 : 44,62,205

(b) Fourty-three million sixty eight thousand ninety-seven : 43,068,097

43,068,097 : 4,30,68,097

Exercise 1.2

1. (a) 56785032

= 50000000 + 6000000 + 700000
+ 80000 + 5000 + 0 + 30 + 2

(b) 96849892

= 90000000 + 6000000 + 800000
+ 40000 + 9000 + 800 + 90 + 2

(c) 10906812

= 10000000 + 0 + 900000 + 0 + 6000
+ 800 + 10 + 2

(d) 3586942

= 3000000 + 500000 + 80000 + 6000
+ 900 + 40 + 2

2. (a) 900000000 + 80000000 + 3000000 + 0
+ 0 + 5000 + 300 + 60 + 7
= 983005367

(b) 10000000 + 2000000 + 300000 + 40000
+ 5000 + 600 + 70 + 8
= 12345678

3. Place value of digit 9 in the numeral 59 3836917 :

593836917
└── 900
└── 90000000

Sum of place values = 90000000 + 900
= 90000900

4. Place value of digit 5 and 2 in the numeral 5692817 :

5692817
└── 2000
└── 5000000

Difference of place values = 5000000 – 2000
= 4998000

Exercise 1.3

1. (a) 611278953 and 61178953

Number of digits in 611278953 is 9.
Number of digits in 61178953 is 8.
Since 9 > 8, therefore
611278953 > 61178953

(b) 127816689 and 225365885

Since, both the numbers have equal number of digits. So, we will compare digits of both the numbers from left.
On first place, we have 2 > 1.
Therefore, 225365 > 127816689

2. (a) 90000009 and 90000001

Since, both the numbers have equal number of digits. So, we will compare digits of both the numbers from left on eighth place, we have 1 < 9.

Therefore, 90000001 < 90000009

(b) 9037848 and 91537964

Number of digits in 9037848 is 7.

Number of digits in 91537964 is 8.

Since 7 < 8, therefore 9037848 < 91537964

3. (a) 10547532, 107819385, 12345678, 10557533

$\Rightarrow 107819385 \boxed{>} 12345678 \boxed{>} 10557533 \boxed{>} 10547532$

(b) 889562553, 875764905, 85985178, 88946275

$\Rightarrow 889562553 \boxed{>} 875764905 \boxed{>} 88946275 \boxed{>} 85985178$

4. (a) 62573348, 625749365, 51785305, 48309641

$\Rightarrow 48309641 \boxed{<} 51785305 \boxed{<} 62573348 \boxed{<} 625749365$

(b) 90574302, 90463785, 9836549, 91783468

$\Rightarrow 9836549 \boxed{<} 90463785 \boxed{<} 90574302 \boxed{<} 91783468$

5. (a) 31650829, 431284703, 4976354, 60153014, 647095832

⇒ On arranging in descending order, we get:

$\boxed{647095832} > 431284703 > 60153014 > 31650829 > 4976354$

(b) 80064339, 300042201, 19501872, 35754639, 201432201

⇒ On arranging in descending order, we get :

$\boxed{300042201} > 201432201 > 80064339 > 35754639 > 19501872$

6. (a) 43519818, 28500215, 9957611, 90030200

⇒ On arranging in ascending order we get :

$\boxed{9957611} < 28500215 < 43519818 < 90030200$

(b) 537819, 35715, 203545002, 192537803

⇒ On arranging in ascending order, we get :

$\boxed{35715} < 537819 < 192537803 < 20354002$

7. (a) 698789 ○ 6542001

(b) 23563541 ⧀ 40170532

(c) 20131201 ⧀ 30963845

(d) 203521601 ⧀ 4856729

8. (a) 9825599

= 9825599 + 1

= 9825600

(b) 19999999

= 19999999 + 1

= 2000000

(c) 30610008

= 30610008 + 1

= 30610009

(d) The greatest 9 digit number

= 999999999

= 999999999 + 1

= 1000000000

9. (a) 73600000

= 73600000 – 1

= 73599999

(b) 30150610

= 30150610 – 1

= 30150609

(c) 98311110

= 98311110 – 1

= 98311109

(d) The smallest 7-digit number = 1000000

= 1000000 – 1

= 999999

Must Practice Exercise 1

Text Book Exercise

1. (a) 24056 : Twenty-four thousand fifty-six

(b) 40009 : Fourty thousand nine

(c) 99999 : Ninety-nine thousand nine hundred ninety nine

(d) 80511 : Eighty thousand five hundred eleven

(e) 67725 : Sixty-seven thousand seven hundred twenty-five

2. (a) 12372

= 10000 + 2000 + 300 + 70 + 2

(b) 23434

= 20000 + 3000 + 400 + 30 + 4

(c) 45302
= 40000 + 5000 + 300 + 0 + 2

(d) 75004
= 70000 + 5000 + 0 + 0 + 4

(e) 68877
= 60000 + 8000 + 800 + 70 + 7

3. (a) 40000 + 5000 + 700 + 70 + 2
= 45772

(b) 60000 + 20 + 6
= 60026

(c) 30000 + 9000 + 900 + 8
= 39908

(d) 50000 + 2000 + 800 + 10 + 1
= 52811

(e) 80000 + 8
= 80008

4. (a) 28506
6
20000

(b) 3 6 2 6 5
60
200
6000

(c) 5 2 2 6 6
6
60
200
2000

(d) 69242
2
200
60000

(e) 82563
60
2000

5. (a) 2979 ⧁ 2932 (b) 5423 ⧀ 5432

(c) 8952 ⊜ 8952 (d) 6850 ⧀ 6852

(e) 3675 ⊜ 3675 (f) 9821 ⧁ 9799

6. (a) 26886, 37725, 30840, 25975, 40021
⇒ 25975 < 26886 < 30840 < 37725 < 40021

(b) 59307, 53907, 59703, 57039, 57903
⇒ 53907 < 57039 < 57903 < 59307 < 59703

(c) 74443, 74434, 74344, 77444, 77555
⇒ 74344 < 74434 < 74443 < 77444 < 77555

7. (a) 41525, 51425, 34152, 42325, 50925
⇒ 51425 > 50925 > 42325 > 41525 > 34152

(b) 86067, 81316, 85032, 82511, 81154
⇒ 86067 > 85032 > 82511 > 81316 > 81154

(c) 76543, 73456, 74356, 76435, 74653
⇒ 76543 > 76435 > 74653 > 74356 > 73456

Additional Exercise

1. 1324, 3124, 2341, 4231
⇒ 4231 > 3124 > 2341 > 1324

2. (a) 41839, 41893, 43981, 41393
⇒ 41393 < 41839 < 41893 < 43981

(b) 19806, 10988, 19888, 19900
⇒ 10988 < 19806 < 19888 < 19900

3. (a) 9999

(b) Digit of hundreds in number 25786 :

T-Th	Th	H	T	O
2	5	7	8	6

7 is digit of hundreds

(c) Place value of 5 in number 35761 :
35761
5000

(d) Smallest number formed by 3, 5, 8, 1, 6
⇒ Arrange digits in ascending order :
1 > 3 > 5 > 6 > 8
Therefore, smallest number formed will be 13568

4. (a) 9, 0, 6, 7, 1
Greatest number : 97610
Smallest number : 10679

(b) 2, 6, 5, 3, 8
Greatest number : 86532
Smallest number : 23568

(c) 7, 3, 0, 6, 2
Greatest number : 76320
Smallest number : 20367

5. 4, 3, 7, 6
Using repetition,
Greatest 5-digit number : 77643
Smallest 5-digit number : 33467

6. (a) 66050
= 60000 + 6000 + 0 + 50 + 0 (True)

(b) 77897
= 70000 + 7000 + 800 + 90 + 7 (True)

(c) 69999 + 1 = 70000
70001 − 1 = 70000 (True)

(d) 45650 (True)
4000

(e) 88026 : Eighty-eight thousand and twenty- six (True)

(f) 71089
= 70000 + 1000 + 0 + 80 + 9 (True)

(b) 6008 : Six thousand eight (True)

(h) 6385 (True)
300

Fun Zone

Activity-1

Given M : 1
A : 10
T : 100
H : 1000

A T M H = 10 100 1 1000

HMAT = 1000110100
ATH = 101001000
MHA = 1100010
MTA = 110010
MATH = 1101001000

Therefore, MATH is the largest among all.

Activity-2

⓪ ① ⑨ ⑤ ③ ⑦ ④

(i) Six number less than 95,00,000 :
9374015, 9374510, 9347150
7493105, 7493150, 5974310

(ii) Five even numbers more than 70,00,000 :

7435190	7354190
7534190	7943510
7154390	

(iii) Smallest number using all digits :
1034579

(iv) Five odd numbers less than 40,00,000 :

3450179	3540179
3405791	3497501
3950417	

Chapter 2 : Addition and Subtraction

Exercise 2.1

1. (a)
①①
2 2 4 4 5 6 1 6
+ 1 3 2 4 5 7 2 1
$\boxed{35691337}$

(b)
(૨) (૨)(૨)(૨)
૩ ૪ ૬ ૭ ૮ ૩ ૫
+ ૨ ૬ ૦ ૪ ૭ ૮ ૦
$\boxed{\text{૬૦૭૨૬૧૫}}$

(c)
①①②①①①
3 2 1 7 6 6 8
1 6 2 8 0 4 5
+ 8 6 4 3 6 5
$\boxed{5710078}$

(d)
(૨) (૧) (૨) (૨)(૨)
૨ ૬ ૭ ૦ ૨ ૮ ૧ ૨ ૫
૨ ૮ ૦ ૨ ૨ ૪ ૨ ૨ ૯
+ ૮ ૧ ૮ ૧ ૯ ૩ ૮ ૩
$\boxed{\text{૫૨૯૦૭૧૭૩૭}}$

2. (a) 456756 + 367880
= 824636

(b) ૮૮૭૭૪૫૦૩ + ૩૭૫૨૨૩૭ + ૬૪૮૩૨૭
= ૯૯૦૦૯૮૫૭

(c) 37458650 + 7575218 + 356008
= 45389876

(d) ૪૮૧૮૦૦૯૦૦ + ૮૫૦૦૦૦૦ + ૯૦૦૦૦૦૦૦
+ ૭૫૭૦૦
= ૫૮૦૩૭૬૬૦૦

3. (a)
①①①①①
5 4⑦3 6 4⑨0
+ ①0 9 7④7 8 4
$\boxed{6\textcircled{5}711274}$

(b)
(૨)(૨)
૮(૫)૨(૭)(૫)(૪)૨
+ ૨(૫)૬ ૭ ૪ ૫
$\boxed{\text{(૮)(૭)૮ ૪(૨)૮ ૭}}$

(c)
②①②①
1 2 8 3⑥9
4 1⑧5 6 3
+ 9②3 1 7 5
$\boxed{\textcircled{1}470107}$

(d)
(૨)(૧)(૧)(૧)
(૧)(૩)૨ ૬(૭)
(૩)૮ ૭(૫)૯
૭ ૩(૨)૪ ૨
+ ૨ ૨ ૬ ૬(૦)(૧)
$\boxed{\text{(૩)૪ ૨ ૮ ૬(૯)}}$

Exercise 2.2

1. Price of the house = ₹ 55,23,800
Price of the car = ₹ 8,49,350
Total spend = ₹ 55,23,800 + ₹ 8,49,350
= ₹ 63,73,150

2. Soap cake manufactured = ૨૮,૩૪,૮૬૯
Bottles of cold drink manufactured
= ૩,૫૨,૮૬,૨૪૭

Total number of items manufactured
= ૨૮,૩૪,૮૬૯ + ૩,૪૨,૮૬,૧૪૭ = ૩,૮૨,૨૨,૦૧૬

3. Population of country A = 16,65,86,300
Population of country B = 8,15,21,350
Total population of both the countries
= 16,65,86,300 + 8,15,21,350 = 24,81,07,650

4. Male voters = 98,41,828
Female voters = 37,84,182
Total number of voters
= 98,41,828 + 37,84,182
= 1,36,26,010

5. Balance amount = ₹ ૪૭,૩૬,૨૫૦
Deposited amount = ₹ ૨૮,૮૭,૨૬૦
Total amount = ₹ ૪૭,૩૬,૨૫૦ + ૨૮,૮૭,૨૬૦
= ₹ ૭૬,૨૩,૪૧૦

Exercise 2.3

1. (a)
⑰⑯⑮⑩⑯
②⑦⑥⑤⓪⑥⑫
3 8 7 6 1 7 2
− 2 8 8 7 2 8 4
$\boxed{0\ 9\ 8\ 8\ 8\ 8\ 8}$

(b)
(૨૦)(૨૦)
(૨)(૯)(૦)(૦)(૨૦)
૩ ૦ ૧ ૧ ૦ ૭ ૮
− ૧ ૯ ૨ ૭ ૬ ૫ ૮
$\boxed{\text{૧ ૦ ૮ ૩ ૪ ૨ ૦}}$

(c)
(૧૩)
(૪)(૯)(૯)(૩)(૨૬)
૫ ૦ ૦ ૪ ૬ ૧ ૩
− ૨ ૪ ૪ ૫ ૮ ૦ ૧
$\boxed{\text{૨ ૫ ૫ ૮ ૮ ૧ ૨}}$

(d)
⑫
⑤②⑫ ⑤⑪
6 3 2 8 6 1 7
− 4 8 3 4 1 5 2
$\boxed{1\ 4\ 9\ 4\ 4\ 6\ 5}$

2. (a)
⑯
8 ⑮ 5 ⑥⑪
9 5 8 9 6 7 1 1
− 7 8 1 6 5 8 3 1
$\boxed{1\ 7\ 7\ 3\ 0\ 8\ 8\ 0}$

(b)
⑫⑫⑫
(૮)(૨)(૨)(૨)(૩)(૩)(૧૪)
૮ ૯ ૨ ૩ ૨ ૩ ૪ ૪
− ૨ ૫ ૩ ૮ ૨ ૭ ૨ ૯
$\boxed{\text{૬ ૩ ૮ ૪ ૯ ૬ ૨ ૫}}$

(c)
(૧૪)(૧૪)(૧૪) (૧૪)
(૫)(૪)(૫)(૪)(૧૬)(૬)(૫)(૧૪)
૬ ૫ ૬ ૫ ૬ ૮ ૬ ૫
− ૩ ૬ ૭ ૬ ૮ ૭ ૮ ૭
$\boxed{\text{૨ ૮ ૮ ૮ ૮ ૦ ૭ ૮}}$

(d)
(૧૬)
(૦)(૯)(૧૦)(૭)(૯)(૬)(૯)(૧૮)
૧ ૦ ૦ ૮ ૦ ૭ ૦ ૮
− ૧ ૩ ૭ ૯ ૮ ૦ ૯
$\boxed{\text{૦ ૮ ૭ ૦ ૦ ૮ ૯ ૯}}$

3. (a)
6 ③ 5 ② 6 ⓪ 0
−④ 3 ⓪ 7 ② 2 ⑧
$\boxed{2\ 0\ 4\ 5\ 3\ 7\ 2}$

(b)
૪ ૦ ૦ ૦ ૦ ૦ ૦ ૦
− ૨ (૬) ૪ (૪) ૨ (૫) ૨ (૪)
$\boxed{\text{(૨) ૩ (૪) ૪ (૭) ૪ (૮) ૬}}$

4. (a) 78,59,432 – 0 = 78,59,432
(b) ૬૫,૩૨,૪૯૮ – ૧ = ૬૫,૩૨,૪૯૭
(c) ૬૫,૫૨૦ – ૬૫,૫૨૦ = ૦
(d) 6,78,875 – 0 = 6,78,875

5. 10000000
– 8493746
$\boxed{01506254}$

Exercise 2.4

1. 58934705 ← Sum
– 2178532 ← One number
$\boxed{56756173}$ ← Other number

2. 239517 ← Candidate A
386652 ← Candidate B
519238 ← Candidate C
+ 74229 ← Candidate D
$\boxed{1219636}$ ← Total votes cast

519238 ← Winner votes
– 386652 ← Rival votes
$\boxed{132586}$ ← Margin

3. Total number of students = ૨,૮૯,૨૭,૬૪૫
Total number of girls = ૭૮,૨૪,૩૮૭
Numbers of boys = ૨૮૯૧૭૬૪૫
– ૭૮૨૪૩૮૭
$\boxed{૨૧૦૯૩૨૫૮}$

4. Wheat produced = 4,68,841 kg
Rice produced = 2,14,678 kg
Total production = 468841
+ 214678
$\boxed{683519}$

Capacity of train to carry load = 6,81,213 kg
Cereal left behind for second trip = 683519
– 681213
$\boxed{002306}$
= 2306 kg

5. Total number of voters = ૭૬,૫૬,૩૨૨
Voters cast votes = ૫૨,૯૩,૪૮૮
Voters did not cast votes = ૬૮૪૬૩૨૨
– ૪૨૭૬૪૮૮
$\boxed{૨૩૬૨૭૩૪}$

Must Practice Exercise 2
Text Book Exercise

1. (a) 2 9 4 2
+ 1 0 5 6
$\boxed{3\ 9\ 9\ 8}$

(b) ① ①
7 4 3 1
+ 1 6 2 9
$\boxed{9\ 0\ 6\ 0}$

(c) ①①
6 0 7 5
+ 3 1 4 6
$\boxed{9\ 2\ 2\ 1}$

(d) ①①①
4 8 7 5
+ 2 1 5 6
$\boxed{7\ 0\ 3\ 1}$

(e) 5 0 0 0
– 2 5 5 2
$\boxed{2\ 4\ 4\ 8}$

(f) 8 8 0 8
– 5 3 0 3
$\boxed{3\ 5\ 0\ 5}$

(g) 9 4 2 1
– 8 3 7 2
$\boxed{1\ 0\ 4\ 9}$

(h) 8 5 2 1
– 7 3 7 2
$\boxed{1\ 1\ 4\ 9}$

2. (i) 8 7 2 5
+ 9 0 7
$\boxed{9\ 6\ 3\ 2}$

(ii) 7 8 6 5
+ 2 1 0 7
$\boxed{9\ 9\ 7\ 2}$

(iii) 5 1 1 3
1 9 9 9
+ 6 3 8
$\boxed{7\ 7\ 5\ 0}$

(d) 8 9 9 9
+ 1 0 0 1
$\boxed{1\ 0\ 0\ 0\ 0}$

3. (i) 3 9 4 4
– 8 4 0
$\boxed{3\ 1\ 0\ 4}$

(ii) 4 8 1 7
– 2 4 0 7
$\boxed{2\ 4\ 1\ 0}$

(iii) 6 0 0 0
– 4 9 9 9
$\boxed{1\ 0\ 0\ 1}$

(iv) 8 3 4 4
– 7 9 8 6
$\boxed{0\ 3\ 5\ 8}$

4. Greatest 4-digit number = 9999
Greatest 3-digit number = 999
Sum = 9999
+ 999
$\boxed{10998}$

5. Amount deposited in January = ₹ 2850
Amount deposited in February = ₹ 3,650
Total amount deposited = ₹ 2850
₹ 3650
$\boxed{₹\ 6500}$

6. Anshu bought bicycle in ₹ 2999
Ruchi bought bicycle in ₹ 2650
Extra money paid by Anshu = ₹ 2999
– 2650
$\boxed{₹\ 0349}$
= ₹ 349

7. Sum = 7678
One number = 4617
Other number = 7678
– 4617
$\boxed{3061}$

8. Total amount = ₹ 10,000
Spend on wheat = ₹ 4,500
Spend on Rice = ₹ 1,600
Total spend = ₹ 4,500 + ₹ 1,600 = ₹ 6,100
Money left = ₹ 10,000
₹ 6,100
$\boxed{₹\ 3900}$
= ₹ 3,900

9. Total number of children = 8,975
Children in first phase = 2,780
Children in second phase = 2,925
Total children in two phases = 2780
+ 2925
$\boxed{5,705}$

Children in third phase = 8975
− 5705
$\boxed{3,270}$
= 3,270

10. (a) २५६८
+ ४३५४
$\boxed{६९२२}$

(b) २३५७
+ ४८६२
$\boxed{७२२८}$

(c) ८६२३
+ १८८६
$\boxed{२०४९९}$

(d) ३४५७
+ ४८१२
$\boxed{८२६९}$

(e) १६३८
− ८६५
$\boxed{०७७३}$

(f) ६३२४
+ ५८२६
$\boxed{०५०८}$

(g) ३५६२
− २४८६
$\boxed{१०७६}$

(h) ४९८६
− ३०८७
$\boxed{२८९९}$

11. Almirah cost = ₹ ६,५८०
Bed cost = ₹ २,६२४
Total spent = ₹ ६,५८०
+ ₹ २,६२४
$\boxed{₹\ ९,२०४}$
= ₹ ९,२०४

12. Rama bought table in ₹ ३,४५०
Radha bought table in ₹ २,९६०
Price difference = ₹ ३,४४०
− ₹ २,९६०
$\boxed{₹\ ४९०}$
= ₹ ४९०

13. Greatest ४-digit number = ९९९९
Smallest ४-digit number = १०००
Sum = ९९९९
+ १०००
$\boxed{₹\ १०९९९}$

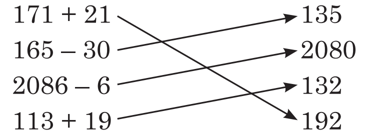
14. Appeared students = २६४
Passed students = १९४
Failed students = २६४
− १९४
$\boxed{०७०}$

15. Sum = ९७३२
One number = ३८४६
Second number = ९७३२
− ३८४६
$\boxed{४८८६}$

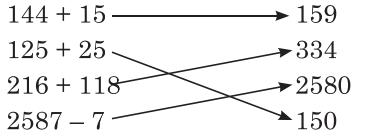
16. Cloth required for curtains = १२५ metre
Cloth required for tents = २८६ metre
Cloth required for both curtains and tents
= १२५
+ २८६
$\boxed{४११}$
= ४११ metre

Additional Exercise

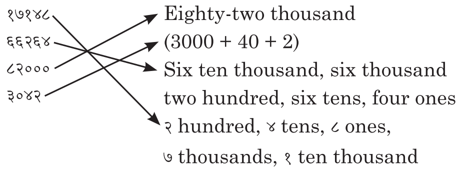
1. (a) Column 'A' Column 'B'


171 + 21
165 – 30
2086 – 6
113 + 19
135
2080
132
192

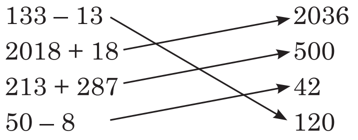
(b) Column 'A' Column 'B'


144 + 15
125 + 25
216 + 118
2587 – 7
159
334
2580
150

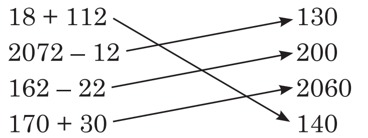
(c) Column 'A' Column 'B'


१७१४८
६६२६४
८२०००
३०४२
Eighty-two thousand
(3000 + 40 + 2)
Six ten thousand, six thousand two hundred, six tens, four ones
२ hundred, ४ tens, ८ ones, ७ thousands, १ ten thousand

(d) Column 'A' Column 'B'


133 – 13
2018 + 18
213 + 287
50 – 8
2036
500
42
120

(e) Column 'A' Column 'B'



2. (a)
7325
+ 1963
$\boxed{9288}$

(b)
7325
– 6581
$\boxed{0744}$

(c)
3758
+ 2637
$\boxed{6395}$

(d)
6372
– 2863
$\boxed{3509}$

3. Plants of rose = 250

Plants of marigold = 165

Plants of jasmine = 187

Total number of plants = 250
165
+ 187
$\boxed{602}$

4. Students participated = 264

Students passed = 194

Sum = 264
– 194
$\boxed{070}$

5. Greatest 5-digit number = 99999

Smallest 5-digit number = 10000

Sum = 99999
+ 10000
$\boxed{109999}$

Fun-Zone

Activity-1 : Do by Yourself

Activity-2

Sum	42473	3426	110	223478
8292	50765	45899	8402	231770
4264	46737	7690	4374	227742
330	42803	3756	440	223508
42312	84785	45738	42422	265790
Difference	42473	3426	330	223478
8292	34181	4866	7962	215186
4264	38209	838	3934	219214
110	42363	3316	220	223368
42912	439	39486	42582	180566

Chapter 3 : Multiplication and Division

Exercise 3.1

1. (a) 5841 × 6432 = _______ × 5841

Using commutative property,

$5841 \times 6432 = \underline{6432} \times 5841$

(b) ૭૪૧૨ × ૧૨૩ = ૧૨૩ × _______

Using commutative property,

૭૪૧૨ × ૧૨૩ = ૧૨૩ × ૭૪૧૨

(c) _______ × 4321 = 4321 × 205

Using commutative property,

$\underline{205} \times 4321 = 4321 \times 205$

(d) 1052 × _______ = 257 × 1052

Using commutative property,

$1052 \times \underline{257} = 257 \times 1052$

(e) ૩૭૮૫ × _______ = ૩૭૮૫

Using commutative property,

૩૭૮૫ × ૧ = ૩૭૮૫

(f) 1 × _______ = 2301

Using multiplicative property of 1,

$1 \times \underline{2301} = 2301$

(g) 2040 × _______ = 0

Using multiplicative property of 0,

$2040 \times \underline{0} = 0$

(h) _______ × 246 = 0

Using multiplicative property of 0

$\underline{0} \times 246 = 0$

(i) ૫૩ × (૧૦૦ + ૭૩) = (૫૩ × ૧૦૦) + (૫૩ × _______)

Using distributive property of multiplication over addition,

૫૩ × (૧૦૦ + ૭૩) = (૫૩ × ૧૦૦) + (૫૩ × ૭૩)

(j) 441 × (1000 + 27) = (441 × _______) + (441 × _______)

Using distributive property of multiplication over addition,

$441 \times (1000 + 27) = (441 \times \underline{1000}) + (441 \times \underline{27})$

(k) 573 × (741 × 309) = (573 × 741) × _____

Using grouping property,

$573 \times (741 \times 309) = (573 \times 741) \times \underline{309}$

(l) ______ × (105 × 579) = (642 × 105) × 579

Using grouping property,

$\underline{642} \times (105 \times 579) = (642 \times 105) \times 579$

2. (a) ८२७२ × १० = ८२७२०

To multiply a number by १०, put one zero to the right of the given number.

(b) 58761 × 10 = 587610

To multiply a number by 10, put one zero to the right of the given number.

(c) 5783 × 100 = 578300

To multiply a number by 100, put two zero to the right of the given number.

(d) २२७२९ × १०० = २२७२९००

To multiply a number by १००, put two zero to the right of the given number.

(e) 7806 × 1000 = 7806000

To multiply a number by 1000, put three zero to the right of the given number.

3. (a) ४०५६ × २०
= ४०५६ × (२ × १०)
= (४०५६ × २) × १०
= ८२२२ × १०
= ८२२२०

(b) 9999 × 40
= 9999 × (4 × 10)
= (9999 × 4) × 10
= 39996 × 10
= 399960

(c) 15325 × 400
= 15325 × (4 × 100)
= (15325 × 4) × 100
= 61300 × 100
= 6130000

(d) 1289 × 300
= 1289 × (3 × 100)
= (1289 × 3) × 100
= 3867 × 100
= 386700

(e) ९२८ × ६०००
= ९२८ × (६ × १०००)
= (९२८ × ६) × १०००
= ५५६८ × १०००
= ५५६८०००

4. (a) 5 × 764 × 2
= 764 × (2 × 5
= 764 × 10
= 7640

(b) २० × ६८९२ × ५
= ६८९२ × (२० × ५)
= ६८९२ × १००
= ६८९२००

(c) ४ × ८४२ × १२५
= ८४२ × (१२५ × ४)
= ८४२ × (५००)
= (८४२ × (५००)
= (८४२ × ५) × १००
= ४२२० × १००
= ४२२०००

(d) 4 × 289 × 25
= 289 × (25 × 4)
= 289 × 100
= 28900

(e) 2 × 6257 × 500
= 6257 × (500 × 2)
= 6257 × 1000
= 6257000

Exercise 3.2

1. (a) 4586 by 908
= 4586 × 908
= 4586 × (900 + 8)
= 4586 × 900 + 4586 × 8
= 4127400 + 36688
= 4164088

(b) 5769 by 259
= 5769 × 259
= 5769 × (200 + 50 + 9)
= 5769 × 200 + 5769 × 50 + 5769 × 9
= 1153800 + 288450 + 51921
= 1494171

(c) 5421 by 4123
= 5421 × 4123
= 5421 × (4000 + 100 + 20 + 3)
= 5421 × 4000 + 5421 × 100 + 5421 × 20 + 5421 × 3
= 21684000 + 542100 + 108420 + 16263
= 22350783

(d) 12467 by 354
= 12467 × 354
= 12467 × (300 + 50 + 4)
= 12467 × 300 + 12467 × 50 + 12467 × 4
= 3740100 + 623350 + 49868
= 4413318

(e) 9376 × 345 × 12
= 9376 × 4140
= 9376 × (4000 + 100 + 40)
= 9376 × 4000 + 9375 × 100 + 9375 × 40
= 37504000 + 937600 + 375040
= 38876640

(f) 1456 × 132 × 19
= 1456 × 2508
= 1456 × (2000 + 500 + 8)
= 1456 × 2000 + 1456 × 500 + 1456 × 8
= 2912000 + 728000 + 11648
= 3651648

2. (a)
```
    8643
   × 872
 -------
   17286
  605010
 6914400
 -------
 7536696
 -------
```
(b)
```
    8641
   × 207
 -------
   60487
   00000
 1728200
 -------
 1788687
 -------
```
(c)
```
     1683
   × 9872
 --------
     3366
   117810
  1346400
 15147000
 --------
 16614576
 --------
```
(d)
```
      ४९३४
    × ८६४२
 ---------
      ९८६८
    २१७३६०
   २९६०४००
  ३९४९२०००
 ---------
 ४२६३९६२७८
 ---------
```
(e)
```
     ३१२९८
     × ४२९
 ---------
    २८२६८२
    ६२५९६०
  २२५२९२००
 ---------
  २३४२६८४२
 ---------
```
(f)
```
     ९२८२३
     × २३७
 ---------
    ६४२७६१
   २७५४६९०
  २८३६४६००
 ---------
  २१७६२०५१
 ---------
```

3. Number of schools = 12,637
Number of students in each school = 2,035
Total number of students in state
= 12637 × 2035
= 2,57,16,295

4. Milk sold in 1 day = 653 litres
Milk sold in 275 days = 653 × 275
= 1,79,575 litres

5. 1 bag weighs 104 kg 890 g = 104.890 kg
658 bags weigh = 104.890 × 658
= 69,017.620 kg

6. 1 bundle measures 356 m 62 cm = 356.62 m
234 bundles will measure = 356.62 × 234
= 83,449.08 m

7. Toy cycles produced in a day = ૮૯૭
In a leap year, number of days = ૩૬૬
Excluding ૧૫ holidays, days left = ૩૬૬ – ૧૫
= ૩૫૧
Toy cycles produced in a leap year
= ૮૯૭ × ૩૫૧
= ૩,૨૪,૮૪૭

8. Pencils produced in a month = ૨૫,૩૦,૯૦૦
૧ box can store ૧૪૪ pencils
Number of boxes available = ૧૭,૬૦૮
Pencils needed to fill these boxes
= ૧૭,૬૦૮ × ૧૪૪
= ૨૫,૩૫,૫૫૨
More pencils needed = ૨૫,૩૫,૫૫૨ – ૨૫,૩૦,૯૦૦
= ૪,૬૫૨

Exercise 3.3

1. (a) 623 ÷ 623 = ______
When a number is divided by itself, the quotient is 1.
Therefore, 623 ÷ 623 = <u>1</u>

(b) 1234 ÷ 1234 = ______
When a number is divided by itself, the quotient is 1.
Therefore, 1234 ÷ 1234 = <u>1</u>

(c) 54321 ÷ 54321 = ______
When a number is divided by itself, the quotient is 1.
Therefore, 54321 ÷ 54321 = <u>1</u>

(d) 123 ÷ 1 = ______
When a number is divided by 1, the quotient is the number itself.
123 ÷ 1 = <u>123</u>

(e) 4567 ÷ 1 = ______
When a number is divided by 1, the quotient is the number itself.
4567 ÷ 1 = <u>4567</u>

(f) 89521 ÷ 1 = ______
When a number is divided by 1, the quotient is the number itself.
895211 = <u>89521</u>

(g) 0 ÷ 354 = ______
When 0 is divided by a non-zero number, the quotient is zero.
0 ÷ 354 = <u>0</u>

(h) 0 ÷ 5467 = ______
When 0 is divided by a non-zero number, the quotient is zero.
0 ÷ 5467 = <u>0</u>

(i) 0 ÷ 87654 = ______
When 0 is divided by a non-zero number, the quotient is zero.
0 ÷ 87654 = <u>0</u>

2. (a) 342961 by 37

= 342961 ÷ 37
Quotient = 9269
Remainder = 8

$$\begin{array}{r}
9269 \\
37\overline{)\,342961} \\
\underline{-333} \\
\times\times\,99 \\
\underline{-74} \\
256 \\
\underline{-222} \\
\times\,341 \\
\underline{-333} \\
\times\times\,8
\end{array}$$

(b) 698347 ÷ 52

Quotient = 13429
Remainder = 39

$$\begin{array}{r}
13429 \\
52\overline{)\,698347} \\
\underline{-52} \\
178 \\
\underline{-156} \\
\times\,223 \\
\underline{-208} \\
\times\,154 \\
\underline{-104} \\
\times\,507 \\
\underline{-468} \\
\times\,39
\end{array}$$

(c) 983297 by 47

Quotient = 20921
Remainder = 10

$$\begin{array}{r}
20921 \\
47\overline{)\,983297} \\
\underline{-94} \\
432 \\
\underline{-423} \\
\times\times\,99 \\
\underline{-94} \\
\times\,57 \\
\underline{-47} \\
\times\,10
\end{array}$$

(d) 6880345 ÷ 123

Quotient = 5593
Remainder = 106

$$\begin{array}{r}
5593 \\
123\overline{)\,688045} \\
\underline{-615} \\
\times730 \\
\underline{-615} \\
1154 \\
\underline{-1107} \\
\times\times475 \\
\underline{-369} \\
106
\end{array}$$

(e) 360428 by 200

= 360428 ÷ 200
Quotient = 1302
Remainder = 28

$$\begin{array}{r}
1302 \\
200\overline{)\,360428} \\
\underline{-200} \\
\times604 \\
\underline{-600} \\
\times428 \\
\underline{-400} \\
\times28
\end{array}$$

(f) 4137 ÷ 1000

Quotient = 4
Remainder = 137

$$\begin{array}{r}
4 \\
1000\overline{)\,4137} \\
\underline{-4000} \\
\times137
\end{array}$$

(g) 72957 ÷ 1000

Quotient = 72
Remainder = 957

$$\begin{array}{r}
72 \\
1000\overline{)\,72957} \\
\underline{-7000} \\
\times2957 \\
\underline{-2000} \\
\times957
\end{array}$$

(h) 921112 by 10000

= 921112 ÷ 10000
Quotient = 92
Remainder = 1112

$$\begin{array}{r}
92 \\
10000\overline{)\,921112} \\
\underline{-90000} \\
\times21112 \\
\underline{-20000} \\
\times1112
\end{array}$$

3. Quotient = 25
Remainder = 5
Divisor = 45

$$\begin{aligned}
\text{Dividend} &= \text{Divisor} \times \text{Quotient} + \text{Remainder} \\
&= 45 \times 25 + 5 \\
&= 1125 + 5 \\
&= 1130
\end{aligned}$$

4. Dividend = 4904
Quotient = 29
Remainder = 3

$$\text{Dividend} = \text{Divisor} \times \text{Quotient} + \text{Remainder}$$

$$\begin{aligned}
\Rightarrow \text{Divisor} &= \frac{\text{Dividend} - \text{Remainder}}{\text{Quotient}} \\
&= \frac{4904 - 3}{29} \\
&= \frac{4901}{29} \\
&= 169
\end{aligned}$$

5. Divisor = 135
Quotient = 78
Remainder = 92
Dividend = Divisor × Quotient + Remainder
= 135 × 78 + 92
= 10530 + 92
= 10622

6. Smallest number of 8-digits = 1,00,00,000
Greatest number of 3-digits = 999

Quotient = 10010
Remainder = 10

10010
999) 10000000
−999
×××1000
−999
×××10

7. Cost of 216 mobile phone is ₹ 11,72,880.

Cost of 1 mobile phone =
5430
216) 1172880
−1080
××928
−864
×648
−648
×××0

Cost of 1 mobile phone = ₹ 5430

8. Number of labourers = 125
Total Money divided = ₹ 5,73,125
Money recieved by each labour
= 573125 ÷ 125

4685
125) 573125
−500
×731
−625
1062
−1000
×625
−625
×××

Money recieved by each labour = ₹ 4585

9. Product of two numbers = ૨૦૩૭૧૫૬
One number = ૭૨૬
Other number = ૨૮૦૬

૨૮૦૬
૭૨૬) ૨૦૩૭૧૫૬
−૨૪૫૨
×૫૮૫૨
−૫૮૦૮
××૪૩૫૬
−૪૩૫૬
××××

10. Divisor = ૮૨૯
Dividend = ૭૩૦૬૮૨

Remainder =
૮૮૨૩
૮૨૭) ૭૩૦૬૦૮૨
−૬૬૩૨
×૬૭૪૦
−૬૬૩૨
×૧૦૮૮
− ૮૨૯
૨૫૯૨
−૨૪૮૭
×૧૦૫

૧૦૫ should be subtracted from dividend to make it completely divisible by ૮૨૯.

Must Practice Exercise 3
Multiplication

1. (a) 286 × 125
= 286 × (100 + 20 + 5)
= 286 × 100 + 286 × 20 + 286 × 5
= 28600 + 5720 + 1430
= 35750

(b) 677 × 212
= 677 × (200 + 10 + 2)
= 677 × 200 + 677 × 10 + 677 × 2
= 125400 + 6770 + 1354
= 143524

(c) 637 × 380
= 637 × (300 + 80)
= 637 × 300 + 637 × 80
= 791100 + 50960
= 242060

(d) 999 × 400
= 999 × (4 × 100)
= (999 × 4) × 100
= 3996 × 100
= 399600

(e) 777 × 222
= 777 × (200 + 20 + 2)
= 777 × 200 + 777 × 20 + 777 × 2
= 155400 + 15540 + 1554
= 172494

(f) 609 × 605
= 609 × (600 + 5)
= 609 × 600 + 609 × 5
= 365400 + 3045
= 368445

(g) 987 × 321
= 987 × (300 + 20 + 1)
= 987 × 300 + 987 × 20 + 987 × 1
= 296100 + 19740 + 987
= 316827

(h) 845 × 599
= 895 × (500 + 90 + 9)
= 845 × 500 + 845 × 90 + 845 × 9
= 422500 + 76050 + 7605
= 506155

(i) 988 × 514
= 988 × (500 + 10 + 4)
= 988 × 500 + 988 × 10 + 988 × 4
= 494000 + 9880 + 3952
= 507832

(j) 900 × 888
= 900 × (800 + 80 + 8)
= 900 × 800 + 900 × 80 + 900 × 8
= 720000 + 72000 + 7200
= 799200

2. (a) ૫૬૨ × ૩૮૪
= ૫૬૨ × (૩૦૦ + ૮૦ + ૪)
= ૪૬૨ × ૩૦૦ + ૫૬૨ × ૮૦ + ૫૬૨ × ૪
= ૨૬૮૬૦૦ + ૪૪૯૬૦ + ૨૨૪૮
= ૨૨૫૮૦૮

(b) ૭૨૫ × ૨૬૦
= ૭૨૫ × (૨૦૦ + ૬૦)
= ૭૨૫ × ૨૦૦ + ૭૨૫ × ૬૦
= ૧૪૩૦૦૦ + ૪૨૯૦૦
= ૧૮૫૯૦૦

(c) ૪૩૬ × ૫૦૦
= ૪૩૬ × (૫ × ૧૦૦)
= (૪૩૬ × ૫) × ૧૦૦
= ૨૧૮૦ × ૧૦૦
= ૨૧૮૦૦૦

(d) ૬૨૬ × ૬૩૪
= ૬૨૬ × (૬૦૦ + ૩૦ + ૪)
= ૬૨૬ × ૬૦૦ + ૬૨૬ × ૩૦ + ૬૨૬ × ૪
= ૩૬૯૬૦૦ + ૨૮૪૮૦ + ૨૪૬૪
= ૩૯૦૫૪૪

(e) ૮૨૩ × ૪૯૨
= ૮૨૩ × (૪૦૦ + ૯૦ + ૨)
= ૮૨૩ × ૪૦૦ + ૮૨૩ × ૯૦ + ૮૨૩ × ૨
= ૩૨૯૨૦૦ + ૭૪૦૭૦ + ૨૬૪૬
= ૪૦૪૯૨૬

(f) ૮૩૪ × ૭૬૪
= ૮૩૪ × (૭૦૦ + ૬૦ + ૪)
= ૮૩૪ × ૭૦૦ + ૮૩૫ × ૬૦ + ૮૩૪ × ૪
= ૫૮૪૫૦૦ + ૫૦૨૦૦ + ૩૩૪૦
= ૬૩૭૯૪૦

3. Toffees in 1 packet = 225
Toffees in 45 such packet = 225 × 45 = 11025

4. Number of students = 165

Amount donated for each students = ₹ 550
Total donated amount = 165 × 550
= ₹ 90,750

5. Capacity of 1 drum = 220 litres
Capacity of 340 drums = 220 × 340
= 74,800 litres

6. Price of 1 chair = ₹ 678
Price of 296 chairs = 678 × 296
= ₹ 2,00,688

7. Number of plants in each flowerbed = 525
Number of plants in 213 flowerbeds
= 525 × 213
= 1,11,825

8. Number of balls in each box = 408
Number of balls in 634 boxes = 408 × 634
= 2,58,672

Division

1. (a) 225 ÷ 15

Quotient = 17
Remainder = 0

$$\begin{array}{r} 17 \\ 15\overline{)255} \\ -15 \\ \hline 105 \\ -105 \\ \hline \times\times\times \end{array}$$

(b) 312 ÷ 12

Quotient = 26
Remainder = 0

$$\begin{array}{r} 26 \\ 12\overline{)312} \\ 24 \\ \hline \times 72 \\ -\ 72 \\ \hline \times\times \end{array}$$

(c) 640 ÷ 16

Quotient = 40
Remainder = 0

$$\begin{array}{r} 40 \\ 16\overline{)640} \\ -64 \\ \hline \times\times 0 \end{array}$$

(d) 702 ÷ 13

Quotient = 54
Remainder = 0

$$\begin{array}{r} 54 \\ 13\overline{)702} \\ -65 \\ \hline \times 52 \\ -52 \\ \hline \times\times \end{array}$$

(e) 357 ÷ 21

Quotient = 17
Remainder = 0

$$\begin{array}{r} 17 \\ 21\overline{)357} \\ -21 \\ \hline 147 \\ -147 \\ \hline \times\times\times \end{array}$$

(f) 770 ÷ 28

Quotient = 27
Remainder = 14

$$\begin{array}{r} 27 \\ 28\overline{)770} \\ -56 \\ \hline 210 \\ -196 \\ \hline \times 14 \end{array}$$

(g) 952 ÷ 34

Quotient = 28
Remainder = 0

$$\begin{array}{r} 28 \\ 34\overline{)952} \\ -68 \\ \hline 272 \\ -272 \\ \hline \times\times\times \end{array}$$

(h) 847 ÷ 18

Quotient = 47
Remainder = 1

$$\begin{array}{r} 47 \\ 18\overline{)847} \\ -72 \\ \hline 127 \\ -126 \\ \hline \times\times 1 \end{array}$$

(i) 656 ÷ 23

Quotient = 28
Remainder = 12

$$\begin{array}{r} 28 \\ 23\overline{)656} \\ -46 \\ \hline 196 \\ -184 \\ \hline \times 12 \end{array}$$

(j) 945 ÷ 35

Quotient = 27
Remainder = 0

$$\begin{array}{r} 27 \\ 35\overline{)945} \\ -70 \\ \hline 245 \\ -245 \\ \hline \times\times\times \end{array}$$

2. (a) ६८४ ÷ २९

Quotient = ३६
Remainder = ०

$$\begin{array}{r} \text{३६} \\ \text{२९}\overline{)\text{६८४}} \\ -\text{५७} \\ \hline \text{११४} \\ -\text{११४} \\ \hline \times\times\times \end{array}$$

(b) ७२५ ÷ २५

Quotient = २९
Remainder = ०

$$\begin{array}{r} \text{२९} \\ \text{२५}\overline{)\text{७२५}} \\ -\text{५०} \\ \hline \text{२२५} \\ -\text{२२५} \\ \hline \times\times\times \end{array}$$

(c) ८५८ ÷ ३३

Quotient = २६
Remainder = ०

$$\begin{array}{r} \text{२६} \\ \text{३३}\overline{)\text{८५८}} \\ -\text{६६} \\ \hline \text{१९८} \\ -\text{१९८} \\ \hline \times\times\times \end{array}$$

(d) ४३७ ÷ २६

Quotient = २७
Remainder = ५

$$\begin{array}{r} \text{२७} \\ \text{२६}\overline{)\text{४३७}} \\ -\text{३२} \\ \hline \text{२२७} \\ -\text{२२२} \\ \hline \times\times\text{५} \end{array}$$

(e) ५६९ ÷ २३

Quotient = २४
Remainder = २७

$$\begin{array}{r} \text{२४} \\ \text{२३}\overline{)\text{५६९}} \\ -\text{४६} \\ \hline \text{१०९} \\ -\text{९२} \\ \hline \text{१७} \end{array}$$

3. Price of 20 copies = ₹ 360
Price of single copy = 360 ÷ 20
= ₹ 18

4. Total number of bananas = 864
1 dozen = 12 objects
Bananas in dozen = 864 ÷ 12
= 72 dozen

5. Number of people can sit in 27 buses = 702
Number of people can sit in 1 bus = 702 ÷ 27
= 26

6. Total money = ₹ 400

Cost of cloth = ₹ 30 per metre

$$\begin{array}{r} 13 \\ 30\overline{)400} \\ -30 \\ \hline 100 \\ -90 \\ \hline \times 10 \end{array}$$

Onkar can buy = 400 ÷ 30

= 13 metres of cloth

₹ 10 will be left.

7. Each garland is made up of 24 flowers.

Number of garlands can be made from 648 flowers = 648 ÷ 24

= 27

8. Number of months in 1 year = 12

Number of years in 936 months = 936 ÷ 12

= 78 years

$$\begin{array}{r} 78 \\ 12\overline{)936} \\ -84 \\ \hline \times 96 \\ -96 \\ \hline \times\times \end{array}$$

Additional Exercise

1. Number of moti in a garland = 108

Number of moti's in 244 garlands

= 244 × 108

= 26352

2. Number of flowers in basket = 875

Flowers needed to made one garland = 25

Total garlands that will be made by these flowers, = 875 ÷ 25

= 35

3. Total number of students = २२४

Subscription charges per student = ₹ १२५

Total amount collected = २२४ × १२५

= ₹ २८,०००

4. Number of mangoes in 4 baskets = 144

Number of mangoes in 1 basket = 144 ÷ 4

= 36

Number of mangos in 13 such baskets

= 36 × 13

= 468

5. Total length = 162 metre

Parts = 18

Length of each part = 162 ÷ 18

= 9 metre

6. Number of seconds in a minute = 60

Number of minutes in an hour = 60

Number of hours in a day = 24

Number of seconds in a day = 60 × 60 × 24

= 86,400 seconds

7. Number of minutes in an hour = 60

Number of hours in a day = 24

Number of minutes in a day = 60 × 24

= 1440 minutes

8. Beat in a minute = ७२

Number of minutes in half of the day

= ६० × १२ = ७२०

Beat in half of the day = ७२० × ७२

= ५२,८४०

9. Number of women = 75

Subscription charges = ₹ 25

Total amount = 75 × 25 = ₹ 1875

Number of flood affected people = 5

Money recieved by each of them = 1875 ÷ 5

= ₹ 375

10. Total number of apples = १७५

Apples kept in side = २५

Apples left = १७५ – २५ = १६०

Number of friends = ५

Apple recieved by each friend = १६० ÷ ५

= ३२ apples

Fun-Zone

1. Total numbr of building = 125

Number of floors in each building = 15

Steps leading to each floor = 18

Buildings visited by Bantoo = 50

Steps Bantoo take to climb up and down on visiting 50 building

= 50 × 15 × 18 × 2

= 27,000 Steps

2.

4	3	2	1
3	2	1	4
2	1	4	3
1	4	3	2

Chapter 4 : Vedic Mathematics

Exercise 4.1

1. (a) 1100

A base number should start with 1 and following only by 0's.

Therefore 1100 is not a base number.

(b) 201

A base number should start with 1 and following only by 0's.

Therefore, 201 is not a base number.

(c) 10

A base number should start with 1 and following only by 0's.

Therefore, 10 is a base number.

(d) 1000

A base number should start with 1 and following only by 0's.

Therefore, 1000 is a base number.

(e) 4000

A base number should start with 1 and following only by 0's.

Therefore, 4000 is not a base number.

(f) 100100

A base number should start with 1 and following only by 0's.

Therefore, 100100 is not a base number.

(g) 1500

A base number should start with 1 and following only by 0's.

Therefore, 1500 is not a base number.

(h) 10000

A base number should start with 1 and following only by 0's.

Therefore, 10000 is a base number.

(i) 2900

A base number should start with 1 and following only by 0's.

Therefore, 2900 is not a base number.

(j) 3210

A base numbr should start with 1 and following only by 0's.

Therefore, 3210 is not a base number.

2. (a) 2 4 3

10 – 3 = 7
9 – 4 = 5
9 – 2 = 7

∴ Complement of 243 is 757.

(b) 7 3 1

10 – 1 = 9
9 – 3 = 6
9 – 7 = 2

∴ Complement of 731 is 269.

(c) 1 2 9 8

10 – 8 = 2
9 – 9 = 0
9 – 2 = 7
9 – 1 = 8

∴ Complement of 1298 is 8702.

(d) 4 7 6 3

10 – 3 = 7
9 – 6 = 3
9 – 7 = 2
9 – 4 = 5

∴ Complement of 4763 is 5237.

(e) 8 4 0 5 6

10 – 6 = 4
9 – 5 = 4
9 – 0 = 9
9 – 4 = 5
9 – 8 = 1

∴ Complement of 84056 is 15944.

(f) 7 0 6 0

0
10 – 6 = 4
9 – 0 = 9
9 – 7 = 2

∴ Complement of 7060 is 2940.

(g) 7 0 0

0
0
10 – 3 = 3

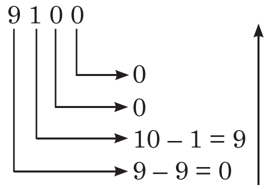
∴ Complement of 700 is 300.

(h) 8 0 9 0 0

0
0
10 – 9 = 1
9 – 0 = 9
9 – 8 = 1

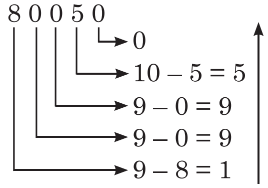
∴ Complement of 80900 is 19100.

(i)


9 1 0 0
0
0
10 – 1 = 9
9 – 9 = 0

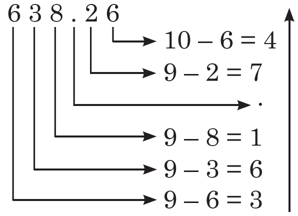
∴ Complement of 9100 is 900.

(j)


8 0 0 5 0
0
10 – 5 = 5
9 – 0 = 9
9 – 0 = 9
9 – 8 = 1

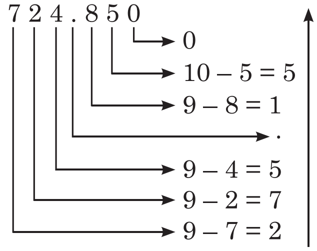
∴ Complement of 80050 is 19950.

(k)


6 3 8 . 2 6
10 – 6 = 4
9 – 2 = 7
.
9 – 8 = 1
9 – 3 = 6
9 – 6 = 3

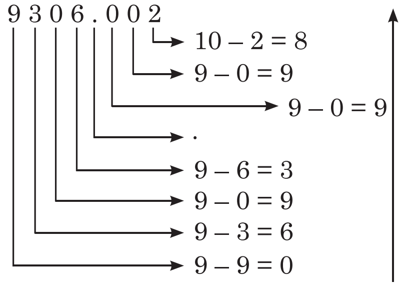
∴ Complement of 638.26 is 361.74.

(l)


7 2 4 . 8 5 0
0
10 – 5 = 5
9 – 8 = 1
.
9 – 4 = 5
9 – 2 = 7
9 – 7 = 2

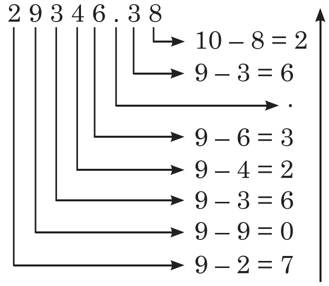
∴ Complement of 724.850 is 275.150.

(m)


9 3 0 6 . 0 0 2
10 – 2 = 8
9 – 0 = 9
9 – 0 = 9
.
9 – 6 = 3
9 – 0 = 9
9 – 3 = 6
9 – 9 = 0

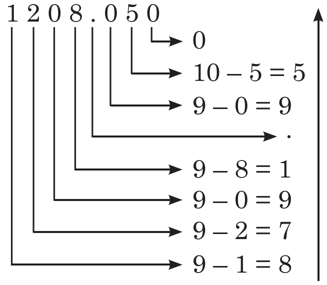
∴ Complement of 9306.002 is 693.998.

(n)


2 9 3 4 6 . 3 8
10 – 8 = 2
9 – 3 = 6
.
9 – 6 = 3
9 – 4 = 2
9 – 3 = 6
9 – 9 = 0
9 – 2 = 7

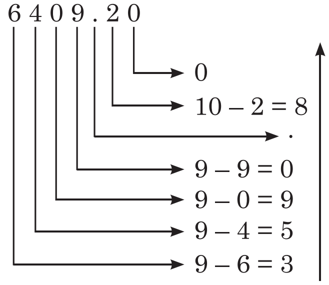
∴ Complement of 29346.38 is 70623.62.

(o)


1 2 0 8 . 0 5 0
0
10 – 5 = 5
9 – 0 = 9
.
9 – 8 = 1
9 – 0 = 9
9 – 2 = 7
9 – 1 = 8

∴ Complement of 1208.050 is 8791.950.

(p)


6 4 0 9 . 2 0
0
10 – 2 = 8
.
9 – 9 = 0
9 – 0 = 9
9 – 4 = 5
9 – 6 = 3

∴ Complement of 6409.20 is 3590.80.

Exercise 4.2

1. (a) 5

Ekadhikena of 5 = $\dot{5}$ = 6

(b) 18

Ekadhikena of 18 = $1\dot{8}$ = 19

(c) Ekadhikena of 27 = $2\dot{7}$ = 28

(d) 31

Ekadhikena of 31 = $3\dot{1}$ = 32

2. (a) 6

Ekanyunena of 6 = $\underset{\cdot}{6}$ = 5

(b) 17

Ekanyunena of 17 = $1\underset{\cdot}{7}$ = 16

(c) 26

Ekanyunena of 26 = $2\underset{\bullet}{6} = 25$

(d) 35

Ekanyunena of 35 = $3\underset{\bullet}{5} = 34$

3. (a) 8

Ekadhikena-purvena of 8 = $\dot{0}8 = 18$

(b) 10

Ekadhikena-purvena of 10 = $\dot{1}0 = 20$

(c) 18

Ekadhikena-purvena of 18 = $\dot{1}8 = 28$

(d) 25

Ekadhikena-purvena of 25 = $\dot{2}5 = 35$

4. (a) 17

Ekanyunena-purvena of 17 = $\underset{\bullet}{1}7 = 07 = 7$

(b) 25

Ekanyunena-purvena of 25 = $\underset{\bullet}{2}5 = 15$

(c) 366

Ekanyunena-purvena of 366 = $3\underset{\bullet}{6}6 = 356$

(d) 852

Ekanyunena-purvena of 852 = $8\underset{\bullet}{5}2 = 842$

Exercise 4.3

1. 8×12

Base = 10

$$= \begin{array}{cc} 8 & -2 \\ 12 & +2 \\ \hline \end{array}$$

$= 12 - 2 / (-2) \times 2$

$= 10 / -4$

$= 9 + \underset{\curvearrowright}{1 / -}4$

$= 9 / 10 - 4$

$= 9 / 6$

$= 96$

2. 4×11

Base = 10

$$= \begin{array}{cc} 4 & -6 \\ 11 & +1 \\ \hline \end{array}$$

$= 11 - 6 / (-6) \times 1$

$= 5 / -6$

$= 4 + \underset{\curvearrowright}{1 / -}6$

$= 4 / 10 - 6$

$= 4 / 4$

$= 44$

3. 3×12

Base = 10

$$= \begin{array}{cc} 3 & -7 \\ 12 & +2 \\ \hline \end{array}$$

$= 12 - 7 / (-7) \times 2$

$= 5 / -14$

$= 3 + \underset{\curvearrowright}{2 / -1}4$

$= 3 / 20 - 14$

$= 3 / 6$

$= 36$

4. 9×12

Base = 10

$$= \begin{array}{cc} 9 & -1 \\ 12 & +2 \\ \hline \end{array}$$

$= 12 - 1 / (-1) \times 2$

$= 11 / -2$

$= 10 + \underset{\curvearrowright}{1 / -}2$

$= 10 / 10 - 2$

$= 10 / 8$

$= 108$

5. 8×11

Base = 10

$$= \begin{array}{cc} 8 & -2 \\ 11 & +1 \\ \hline \end{array}$$

$= 11 - 2 / (-2) \times 1$

$= 9 / -2$

$= 8 + \underset{\curvearrowright}{1 / -}2$

$= 8 / 10 - 2$

$= 8 / 8 = 88$

6. 7×13

Base = 10

$$= \begin{array}{cc} 7 & -3 \\ 13 & +3 \\ \hline \end{array}$$

$= 13 - 3 / (-3) \times 3$

$= 10 / -9$

$= 9 + \underset{\curvearrowright}{1 / -}9$

$= 9 / 10 - 9$

$= 9 / 1$

$= 91$

Must Practice Exercise 4
Text Book Exercise

1. (a) $\begin{array}{r} \underset{\cdot}{8}2 \\ -54 \\ \boxed{28} \end{array}$ (b) $\begin{array}{r} \underset{\cdot}{6}6 \\ -48 \\ \boxed{18} \end{array}$

(c) $\begin{array}{r} \underset{\cdot}{7}4 \\ -69 \\ \boxed{05} \end{array}$ (d) $\begin{array}{r} \underset{\cdot}{3}\underset{\cdot}{4}2 \\ -143 \\ \boxed{199} \end{array}$

(e) $\begin{array}{r} \underset{\cdot}{5}\underset{\cdot}{2}4 \\ -267 \\ \boxed{257} \end{array}$ (f) $\begin{array}{r} \underset{\cdot}{9}\underset{\cdot}{4}5 \\ -876 \\ \boxed{069} \end{array}$

(g) $\begin{array}{r} \underset{\cdot}{4}1\underset{\cdot}{6}2 \\ -2536 \\ \boxed{1626} \end{array}$ (h) $\begin{array}{r} \underset{\cdot}{7}\underset{\cdot}{2}\underset{\cdot}{6}4 \\ -3897 \\ \boxed{3367} \end{array}$

(i) $\begin{array}{r} 1\underset{\cdot}{2}\underset{\cdot}{4}5 \\ -978 \\ \boxed{1626} \end{array}$

2. (a) $\begin{array}{r} 200 \\ -\ \dot{1}\dot{3}2 \\ \boxed{068} \end{array}$ (b) $\begin{array}{r} 500 \\ -\ \dot{3}\dot{0}9 \\ \boxed{191} \end{array}$

(c) $\begin{array}{r} 805 \\ -\ \dot{6}\dot{0}8 \\ \boxed{197} \end{array}$ (d) $\begin{array}{r} 1700 \\ -\ \dot{9}\dot{7}3 \\ \boxed{0727} \end{array}$

(e) $\begin{array}{r} 8305 \\ -\ 5\dot{2}\dot{8}1 \\ \boxed{3024} \end{array}$ (f) $\begin{array}{r} 4000 \\ -\ \dot{2}7\dot{3}6 \\ \boxed{1264} \end{array}$

(g) $\begin{array}{r} 9700 \\ -\ \dot{4}\dot{9}\dot{0}4 \\ \boxed{4796} \end{array}$ (h) $\begin{array}{r} 1000 \\ -\ \dot{8}\dot{5}4 \\ \boxed{0146} \end{array}$

(i) $\begin{array}{r} 9000 \\ -\ \dot{3}\dot{8}\dot{9}6 \\ \boxed{5104} \end{array}$

3.

Number	14	11	8	9	13	19	7	6
Deviation	+4	+1	–2	–1	+3	+9	–3	–4

4. (a) 12 × 9

Base = 10

$$\begin{array}{rr} = 12 & +2 \\ 9 & -1 \\ \hline \end{array}$$

= 9 + 2 / (–1) × 2
= 11 / –2
= $10 + \overset{\curvearrowright}{1 / -2}$
= 10 / 10 – 2
= 10 / 8
= 108

(b) 15 × 12

Base = 10

$$\begin{array}{rr} = 15 & +5 \\ 12 & +2 \\ \hline \end{array}$$

= 12 + 5 / (+ 5) × 2
= $\overset{\curvearrowleft}{17 / 10}$
= 17 + 1 / 0
= 1810
= 180

(c) 13 × 17

Base = 10

$$\begin{array}{rr} = 13 & +3 \\ 17 & +7 \\ \hline \end{array}$$

= 17 + 3 / (+3) × 7
= $\overset{\curvearrowleft}{20 / 21}$
= 20 + 2 / 1
= 22 / 1
= 221

(d) 8 × 9

Base = 10

$$\begin{array}{rr} = 8 & -2 \\ 9 & -1 \\ \hline \end{array}$$

= 9 – 2 / (–1) × – 2
= 7 / 2
= 72

(e) 14 × 17

Base = 10

$$\begin{array}{rr} = 14 & +4 \\ 11 & +1 \\ \hline \end{array}$$

= 11 + 4 / (+ 4) × 1
= 15 / 4
= 154

(f) 9 × 16

Base = 10

$$\begin{array}{rr} = 9 & -1 \\ 16 & +6 \\ \hline \end{array}$$

= 16 – 1 / (–1) × 6
= 15 / –6
= $14 + \overset{\curvearrowright}{1 / -6}$
= 14 / 10 – 6
= 14 / 4
= 144

(g) 12×13

Base = 10

$$\begin{array}{ll} = 12 & +2 \\ \;\;\, 13 & +3 \\ \hline \end{array}$$

$= 13 + 2 \,/\, (+2) \times 3$

$= 15 \,/\, 6$

$= 156$

(h) 13×10

Base = 10

$$\begin{array}{ll} = 13 & +3 \\ \;\;\, 10 & 0 \\ \hline \end{array}$$

$= 10 + 3 \,/\, (+3) \times 0$

$= 13 \,/\, 0$

$= 130$

Additional Exercise

1. (a) 12×14

Base = 10

$$\begin{array}{ll} = 12 & +2 \\ \;\;\, 14 & +4 \\ \hline \end{array}$$

$= 14 + 2 \,/\, (+2) \times 4$

$= 16 \,/\, 8$

$= 168$

(b) 11×16

Base = 10

$$\begin{array}{ll} = 11 & +1 \\ \;\;\, 16 & +6 \\ \hline \end{array}$$

$= 16 + 1 \,/\, (+1) \times 6$

$= 17 \,/\, 6$

$= 176$

2. 13×15

Base = 10

$$\begin{array}{ll} = 13 & +3 \\ \;\;\, 15 & +5 \\ \hline \end{array}$$

$= 15 + 3 \,/\, (+3) \times 5$

$= \underset{\curvearrowleft}{18 \,/\, 15}$

$= 18 + 1 \,/\, 5$

$= 19 \,/\, 5$

$= 195$

3. (a)
$$\begin{array}{r} \underset{\cdot}{8}\underset{\cdot}{0}5 \\ -\,608 \\ \boxed{197} \end{array}$$

(b)
$$\begin{array}{r} \underset{\cdot}{8}\underset{\cdot}{0}0 \\ -\,543 \\ \boxed{257} \end{array}$$

4. (a) 6

deviation = – 4 (Base 10)

(b) 9

deviation = – 1 (Base 10)

(c) 14

deviation = + 4 (Base 10)

5. Complementary digit of :

$4 = 10 - 4 = 6$

$6 = 10 - 6 = 4$

$12 = 100 - 12 = 88$

6. (a) 16×18

Base = 10

$$\begin{array}{ll} = 16 & +6 \\ \;\;\, 18 & +8 \\ \hline \end{array}$$

$= 18 + 6 \,/\, (+6) \times 8$

$= \underset{\curvearrowleft}{24 \,/\, 48}$

$= 24 + 4 \,/\, 8$

$= 28 \,/\, 8$

$= 288$

(b) 14×16

Base = 10

$$\begin{array}{ll} = 14 & +4 \\ \;\;\, 16 & +6 \\ \hline \end{array}$$

$= 16 + 4 \,/\, (+4) \times 6$

$= \underset{\curvearrowleft}{20 \,/\, 24}$

$= 20 + 2 \,/\, 4$

$= 22 \,/\, 4$

$= 224$

Chapter 5 : Multiplies and Factors

Exercise 5.1

1. (a) 2 = 2, 4, ⑥, 8, 10, ⑫, 14, 16, ⑱, 20, ...

3 = 3, ⑥, 9, ⑫, 15, ⑱, 21, 24, 27, 30, ...

First 3 common multiples of 2 and 3 are 6, 12 and 18.

(b) 6 = 6, 12, 18, ㉔, 30, 36, 42, ㊽, 54, 60, (72), ...

8 = 8, 16, ㉔, 32, 40, ㊽, 56, 64 , (72), 80, 88, 66, ...

First 3 common multiples of 6 and 8 are 24, 48 and 72.

2. (a) 2,3

2 = 2, 4, 6, 8, 10, ...

3 = 3, 6, 9, 12, 15, ...

Least common multiple of 2 and 3 is 6.

Hence, LCM will be 6.

(b) 4, 5, 12

4 = 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, ...

5 = 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, ...

12 = 12, 24, 36, 45, 60, 72, 84 ....

60 is the least common multiple of 4, 5 and 12. Hence, LCM will be 60.

(c) 6, 15, 9

6 = 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, ...

15 = 15, 30, 45, 60, 75, 90, ...

9 = 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, ...

90 is the least common multiple of 6, 15 and 9. Hence, LCM will be 90.

3. (a) 28, 84

$$\begin{array}{r|l} 2 & 28 \\ \hline 2 & 14 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 84 \\ \hline 2 & 42 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$28 = 2 \times 2 \times 7$ $\quad$ $84 = 2 \times 2 \times 3 \times 7$

$= (2)^2 \times 7$ $\quad$ $= (2)^2 \times 3 \times 7$

LCM = highest power of 2 × highest power 3 × highest power of 7

$= (2)^2 \times 3 \times 7$

$= 84$

(b) 25, 30

$$\begin{array}{r|l} 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 30 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

$25 = 5 \times 5 \times (5)^2$ $\quad$ $30 = 2 \times 3 \times 5$

$\text{LCM} = (5)^2 \times 2 \times 3$

$= 150$

(c) 27, 54, 90

$$\begin{array}{r|l} 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 54 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 90 \\ \hline 3 & 45 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

$27 = 3 \times 3 \times 3$ $\quad$ $54 = 2 \times 3 \times 3 \times 3$ $\quad$ $90 = 2 \times 3 \times 3 \times 5$

$= (3)^3$ $\quad$ $= 2 \times (3)^3$ $\quad$ $= 2 \times (3)^2 \times 5$

$\text{LCM} = (3)^3 \times 2 \times 5 = 270$

4. (a) 72, 88

$$\Rightarrow \begin{array}{r|l} 2 & 72, 88 \\ \hline 2 & 36, 44 \\ \hline 2 & 18, 22 \\ \hline 3 & 9, 11 \\ \hline 3 & 3, 11 \\ \hline 11 & 1, 11 \\ \hline & 1, 1 \end{array}$$

$\text{LCM} = 2 \times 2 \times 2 \times 3 \times 3 \times 11$

$= 792$

(b) 60, 72, 96

$$\Rightarrow \begin{array}{r|l} 2 & 60, 72, 96 \\ \hline 2 & 30, 36, 48 \\ \hline 2 & 15, 18, 24 \\ \hline 2 & 15, 9, 12 \\ \hline 2 & 15, 9, 6 \\ \hline 3 & 15, 9, 3 \\ \hline 3 & 5, 3, 1 \\ \hline 5 & 5, 1, 1 \\ \hline & 1, 1, 1 \end{array}$$

$\text{LCM} = 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5$

$= 1440$

(c)

$$\begin{array}{r|l} 3 & 15, 45, 125, 1225 \\ \hline 3 & 5, 15, 125, 1225 \\ \hline 5 & 5, 5, 125, 1225 \\ \hline 5 & 1, 1, 25, 245 \\ \hline 5 & 1, 1, 5, 49 \\ \hline 7 & 1, 1, 1, 7 \\ \hline 7 & 1, 1, 1, 7 \\ \hline & 1, 1, 1, 1 \end{array}$$

$\text{LCM} = 3 \times 3 \times 5 \times 5 \times 5 \times 7 \times 7$

$= 55125$

Exercise 5.2

1. (a) 12, 15

12 = 2 × 2 ×③

15 =③× 5

HCF = 3

(b) 16, 24

16 =②×②×②× 2

24 =②×②×②× 3

HCF = 2 × 2 × 2 = 8

(c) 18, 27

$18 = 2 \times \textcircled{3} \times \textcircled{3}$

$27 = 3 \times \textcircled{3} \times \textcircled{3}$

$\text{HCF} = 3 \times 3 = 9$

(d) 20, 25, 30

$20 = 2 \times 2 \times \textcircled{5}$

$25 = 5 \times \textcircled{5}$

$30 = 2 \times 3 \times \textcircled{5}$

HCF = 5

(e) 16, 32, 48

$16 = \textcircled{2} \times \textcircled{2} \times \textcircled{2} \times \textcircled{2}$

$32 = \textcircled{2} \times \textcircled{2} \times \textcircled{2} \times \textcircled{2} \times 2$

$48 = \textcircled{2} \times \textcircled{2} \times \textcircled{2} \times \textcircled{2} \times 3$

$\text{HCF} = 2 \times 2 \times 2 \times 2$

$= 16$

2. (a) $42 = 2 \times 3 \times 7$

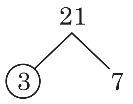
(b) $63 = 3 \times 3 \times 7 = (3)^2 \times 7$

(c) $32 = 2 \times 2 \times 2 \times 2 \times 2 = (2)^5$

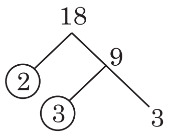
(d) $84 = 2 \times 2 \times 3 \times 7 = (2)^2 \times 3 \times 7$

(e) $45 = 3 \times 3 \times 5 = (3)^2 \times 5$

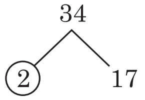
3. (a)



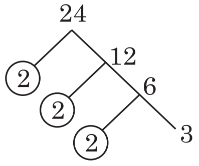
(b)



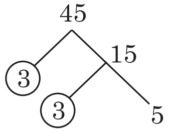
(c)



(d)



(e)



4. (a) 36, 54

$$\begin{array}{r|l} 2 & 36 \\ \hline 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 54 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \qquad \begin{aligned} \text{HCF} &= 2 \times 3 \times 3 \\ &= 18 \end{aligned}$$

$36 = 2 \times 2 \times 3 \times 3,\ 54 = 2 \times 3 \times 3 \times 3$

(b) 112, 114

$$\begin{array}{r|l} 2 & 112 \\ \hline 2 & 56 \\ \hline 2 & 28 \\ \hline 2 & 14 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 114 \\ \hline 3 & 57 \\ \hline 19 & 19 \\ \hline & 1 \end{array} \qquad \text{HCF} = 2$$

$112 = 2 \times 2 \times 2 \times 2 \times 7,\ 114 = 2 \times 3 \times 19$

(c) 100, 200, 300

$$\begin{array}{r|l} 2 & 100 \\ \hline 2 & 50 \\ \hline 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 200 \\ \hline 2 & 100 \\ \hline 2 & 50 \\ \hline 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 300 \\ \hline 2 & 150 \\ \hline 3 & 75 \\ \hline 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

$100 = 2 \times 2 \times 5 \times 5,\ 200 = 2 \times 2 \times 2 \times 2 \times 5 \times 5$

$300 = 2 \times 2 \times 3 \times 5 \times 5$

$\text{HCF} = 2 \times 2 \times 5 \times 5 \times 100$

(d) 42, 63, 105

$$\begin{array}{r|l} 2 & 42 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 3 & 63 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 3 & 105 \\ \hline 5 & 35 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$42 = 2 \times 3 \times 7,\ 63 = 3 \times 3 \times 7,\ 105 = 3 \times 5 \times 7$

$\text{HCF} = 3 \times 7 = 21$

(e) 144, 180, 252

$$\begin{array}{r|l} 2 & 144 \\ \hline 2 & 72 \\ \hline 2 & 36 \\ \hline 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 180 \\ \hline 2 & 90 \\ \hline 3 & 45 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array} \qquad \begin{array}{r|l} 2 & 252 \\ \hline 2 & 126 \\ \hline 3 & 63 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$144 = 2 \times 2 \times 2 \times 3 \times 3,\ 180 = 2 \times 2 \times 3 \times 3 \times 5,$

$252 = 2 \times 2 \times 3 \times 3 \times 7$

$\text{HCF} = 2 \times 2 \times 3 \times 3 = 36$

5. (a) 96, 120

$$\begin{array}{r|l} 2 & 96,\ 120 \\ \hline 2 & 48,\ \ 60 \\ \hline 2 & 24,\ \ 30 \\ \hline 3 & 12,\ \ 15 \\ \hline & \ \ 4,\ \ \ 5 \end{array}$$

HCF = 2 × 2 × 2 × 3 = 24

(b) 24, 36, 72

$$\begin{array}{r|l} 2 & 24,\ 36,\ 72 \\ \hline 2 & 12,\ 18,\ 36 \\ \hline 3 & \ 6,\ \ 9,\ 18 \\ \hline & \ 2,\ \ 3,\ \ 6 \end{array}$$

HCF = 2 × 2 × 3 = 12

(c) 45, 105, 120

$$\begin{array}{r|l} 3 & 45,\ 105,\ 120 \\ \hline 5 & 15,\ \ 35,\ \ 40 \\ \hline & \ 5,\ \ \ 7,\ \ \ 8 \end{array}$$

HCF = 3 × 5 = 15

(d) 17, 34, 51

$$\begin{array}{r|l} 17 & 17,\ 34,\ 51 \\ \hline & 1,\ \ 2,\ \ 3 \end{array}$$

HCF = 17

(e) 100, 200, 300

$$\begin{array}{r|l} 2 & 100,\ 200,\ 300 \\ \hline 2 & \ 50,\ 100,\ 150 \\ \hline 5 & \ 25,\ \ 50,\ \ 75 \\ \hline 5 & \ \ 5,\ \ 10,\ \ 15 \\ \hline & \ \ 1\ \ \ 2,\ \ \ 3 \end{array}$$

HCF = 2 × 2 × 5 × 5
= 100

6. (a) 135, 180

$$\begin{array}{l} \qquad 1 \\ 135\overline{)\,180} \\ \quad -135 \quad 3 \\ \quad\ \times 45\,\overline{)\,135} \\ \qquad\quad -135 \\ \qquad\quad \times\times\times \end{array}$$

HCF = 45

(b) 360, 456

$$\begin{array}{l} \qquad 1 \\ 360\overline{)\,456} \\ \quad -360 \quad 3 \\ \quad\ \times 96\,\overline{)\,360} \\ \qquad\quad -288 \quad 1 \\ \qquad\quad \times 72\,\overline{)\,96} \\ \qquad\qquad\quad -72 \quad 3 \\ \qquad\qquad\quad 24\,\overline{)\,72} \\ \qquad\qquad\qquad -72 \\ \qquad\qquad\qquad \times\times \end{array}$$

HCF = 24

(c) 225, 540

$$\begin{array}{l} \qquad 2 \\ 225\overline{)\,540} \\ \quad -450 \quad 2 \\ \quad\ \times 90\,\overline{)\,225} \\ \qquad\quad -180 \quad 2 \\ \qquad\quad\ 45\,\overline{)\,90} \\ \qquad\qquad\quad -90 \\ \qquad\qquad\quad \times\times \end{array}$$

HCF = 45

(d) 72, 108

$$\begin{array}{l} \qquad 1 \\ 72\overline{)\,108} \\ \quad -72 \quad 2 \\ \quad\ 36\,\overline{)\,72} \\ \qquad\quad -72 \\ \qquad\quad \times\times \end{array}$$

HCF = 36

(e) 1085, 1435, 2135

$$\begin{array}{l} \qquad\ 1 \\ 1085\overline{)\,1435} \\ \quad -1085 \quad 3 \\ \quad\ \times 350\overline{)\,1085} \\ \qquad\quad -1050 \quad 10 \\ \qquad\quad \times\times 35\overline{)\,350} \\ \qquad\qquad\quad -35 \\ \qquad\qquad\quad \times\times 0 \end{array}$$

HCF of 1085 and 1435
= 35

$$\begin{array}{l} \qquad 61 \\ 35\overline{)\,2135} \\ \quad -210 \\ \quad \times\times 35 \\ \quad\ \ -35 \\ \quad\ \ \times\times \end{array}$$

HCF of 1085, 1435 and 2135
= 35

7. 12, 16, 18

$$\begin{array}{r|l} 2 & 12,\ 16,\ 18 \\ \hline & \ 6,\ \ 8,\ \ 9 \end{array}$$

HCF = 2
2 metre length of the tape should be used to measure the three pieces.

8. 15, 25, 40, 50

$$\begin{array}{r|l} 2 & 15,\ 25,\ 40,\ 50 \\ \hline 2 & 15,\ 25,\ 20,\ 25 \\ \hline 2 & 15,\ 25,\ 10,\ 25 \\ \hline 3 & 15,\ 25,\ \ 5,\ 25 \\ \hline 5 & \ 5,\ 25,\ \ 5,\ 25 \\ \hline 5 & \ 1,\ \ 5,\ \ 1,\ \ 5 \\ \hline & \ 1\ \ \ 1,\ \ 1,\ \ 1 \end{array}$$

LCM = 2 × 2 × 2 × 3 × 5 × 5 = 600

They will meet at the same point after 600 second or 10 minute (as 1 minute = 60 second).

9. 8, 12, 16

$$\begin{array}{r|l} 2 & 8,\ 12,\ 16 \\ \hline 2 & 4,\ 6,\ 8 \\ \hline 2 & 2,\ 3,\ 4 \\ \hline 2 & 1,\ 3,\ 2 \\ \hline 3 & 1,\ 3,\ 1 \\ \hline & 1\ \ 1,\ 1 \end{array}$$

LCM = 2 × 2 × 2 × 2 × 3 = 48

Smallest number of four digits divisible by 48 = 1008

1008 will be the smallest 4-digit number exatly divisible by 8, 12, 16

10. 12, 18, 30

$$\begin{array}{r|l} 2 & 12,\ 18,\ 30 \\ \hline 2 & 6,\ 9,\ 15 \\ \hline 3 & 3,\ 9,\ 15 \\ \hline 3 & 1,\ 3,\ 5 \\ \hline 5 & 1,\ 1,\ 5 \\ \hline & 1,\ 1,\ 1 \end{array}$$

LCM = 2 × 2 × 3 × 3 × 5 = 180

180 seconds = 3 minutes

After 3 minutes, all the lights will again change simultaneasly.

11. LCM = 84, HCF = 3

one number = 21, let other number = x

LCM × HCF = product of numbers

$$84 \times 3 = 21 \times x$$

$$x = 12$$

Hence, other number will be 12.

12. Product = 486

LCM = 54

HCF = ?

LCM × HCF = 486

$$\text{HCF} = \frac{486}{54}$$

HCF = 9

Must Practice Exercise 5

Text Book Exercise

1. (a) 4 = 4, 8, 12, 16

(b) 7 = 7, 14, 21, 28

(c) 14 = 14, 28, 42, 56

(d) 19 = 19, 38 57, 76

2. (a) 3 = 5, [✓ 9], [✓ 3], 13, [✓ 18]

(b) 5 = [✓ 45], 11, [✓ 10], 22, [✓ 55]

(c) 12 = [✓ 12], [✓ 36], 32 , [✓ 48], 18

(d) 15 = 25, 35, [✓ 15], 40, [✓ 45]

3. 6, 12, 15, 18, 24, 30

Common multiples of 3 and 4 are : 12, 24

4. 7 = 7, 14, 21, 28, ……

Between 10 and 30 : 14, 21, 28

5. 4 = 4, 8, 12, 16, 20, 24, 28, 32, 36,……

Greater than 25 : 28, 32, 36

6. (a)

$$\begin{array}{r|l} 2 & 2,\ 5 \\ \hline 5 & 1,\ 5 \\ \hline & 1,\ 1 \end{array}$$

LCM = 2 × 5 = 10

(b)

$$\begin{array}{r|l} 2 & 8,\ 12 \\ \hline 2 & 4,\ 6 \\ \hline 2 & 2,\ 3 \\ \hline 3 & 1,\ 3 \\ \hline & 1,\ 1 \end{array}$$

LCM = 2 × 2 × 2 × 3 = 24

(c)

$$\begin{array}{r|l} 2 & 6,\ 9,\ 15 \\ \hline 3 & 3,\ 9,\ 15 \\ \hline 3 & 1,\ 3,\ 5 \\ \hline 5 & 1,\ 1,\ 5 \\ \hline & 1,\ 1\ \ 1 \end{array}$$

LCM = 2 × 3 × 3 × 5
= 90

7. (a) 7 = 1, 7

(b) 9 = 1, 3, 9

(c) 16 = 1, 2, 4, 8

(d) 25 = 1, 5

(e) 48 = 1, 2, 4, 6, 8, 12, 16, 24

(f) 63 = 1, 3, 7, 9, 21

8. (a) 8 and 12

8 = 1, 2, 4, 8

12 = 1, 2, 3, 4

Common factors = 1, 2, 4

(b) 10 and 20

10 = 1, 2, 5, 10

20 = 1, 2, 4, 5, 10, 20

Common factors = 1, 2, 5, 10

(c) 7 and 16

7 = 1, 7

16 = 1, 2, 4, 8, 16

Common factor = 1

(d) 18 and 32

18 = 1, 2, 3, 6, 9, 18

32 = 1, 2, 4, 8, 16, 32

Common factor = 1, 2

9. (a) 21 and 28

21 =1, 3, 7, 21
28 = 1, 2, 4, 7, 14, 28
HCF = 7

(b) 12, 18, 24

12 = 1, 2, 3, 4, 6, 12
18 = 1, 2, 3, 6, 9, 18
24 = 1, 2, 3, 4, 6, 8, 12, 24
HCF = 6

(c) 15, 27, 36

15 = 1, 3, 5, 15
27 = 1, 3, 9, 27
36 = 1, 2, 3, 4, 6, 12, 18, 36
HCF = 3

10.

$$\begin{array}{r|l} 3 & 45,\ 75 \\ \hline 3 & 15,\ 25 \\ \hline 5 & 5,\ 25 \\ \hline 5 & 1,\ 5 \\ \hline & 1,\ 1 \end{array} \qquad \text{LCM} = 3 \times 3 \times 5 \times 5 = 225$$

11. 20, 30

20 = 1, 2, 4, 5, 10, 20
30 = 1, 2, 3, 5, 6, 10, 15, 30
HCF = 10

Measurement of container should be 10 litre to measure total milk of both container exactly.

Additional Exercise

1. 15, 45, 60

15 = 1, 3, 5, 15
45 = 1, 3, 5, 15, 45
60 = 1, 2, 3, 4, 5, 6, 10, 15, 20, 30, 60
HCF = 15

15 will be the number which divides 15, 45, 60 completely.

2.

$$\begin{array}{r|l} 2 & 8,\ 12 \\ \hline 2 & 4,\ 6 \\ \hline 2 & 2,\ 3 \\ \hline 3 & 1,\ 3 \\ \hline & 1,\ 1 \end{array} \qquad \text{LCM} = 2 \times 2 \times 2 \times 4 = 24$$

3. 25, 45

25 = 1, 5, 25
45 = 1, 3, 5, 15, 45
HCF = 5

Measure of utensil should be 5 litre.

4. 12, 18, 24

12 = 1, 2, 3, 4, 6, 12
18 = 1, 2, 3, 6, 9, 18
24 = 1, 2, 3, 4, 6, 8, 12, 24
HCF = 6

5. 30, 50, 70

30 = 1, 3, 5, 6, 10, 15, 30
50 = 1, 2, 5, 10, 25, 50
70 = 1, 2, 5, 7, 10, 35, 70
HCF = 10

6. 5 = 5, 10, 15, 20, 25, 30, ……

Between to and 30 : 15, 20, 25

7. 3 multiples of 3 greater than 22 :

24, 27, 30

8. 20, 40, 60

20 = 1, 2, 4, 5, 10, 20
40 = 1, 2, 4, 5, 8, 10, 20, 40
60 = 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
HCF = 20

20 will be the number which divides 20, 40 and 60 complitely.

Fun-Zone

1.

10	2	1	9
1	9	10	
2	10	9	1
9	1	2	10

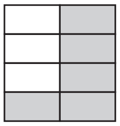
2.

3	+	9	=	12
×	▨	×	▨	÷
12	÷	2	=	6
=	▨	=	▨	=
36	÷	18	=	2

Chapter 6 : Understanding the Fractions

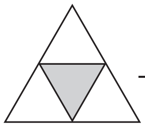
1. (a) $\frac{1}{4}$ (b) $\frac{3}{7}$

2. (a)



$\frac{5}{8}$

(b)



$\frac{1}{4}$

3. (a) Shaded : $\frac{4}{11}$

Unshaded : $\frac{7}{11}$

(b) Shaded : $\frac{1}{8}$

Unshaded : $\frac{7}{8}$

4. (a) denominator = 7, numerator = 5

fraction = $\frac{5}{7}$

(b) denominator = 19, numerator = 15

fraction = $\frac{15}{19}$

5. (a) $\frac{3}{19}$: three by nineteen

(b) $\frac{5}{5}$: five by five

(c) $\frac{0}{17}$: zero by eleven

(d) $\frac{1}{2}$: one by two

6. (a) $1\frac{7}{9}$: mixed fraction

(b) $\frac{5}{8}$: proper fraction

(c) $\frac{1}{5}$: unit fraction

(d) $\frac{11}{3}$: improper fraction

7. (a) $\frac{7}{3} = 2\frac{1}{3}$

(b) $\frac{80}{7} = 11\frac{3}{7}$

(c) $\frac{41}{5} = 8\frac{1}{5}$

(d) $\frac{91}{88} = 1\frac{3}{88}$

8. (a) $5\frac{2}{9} = \frac{47}{9}$

(b) $8\frac{1}{8} = \frac{65}{8}$

(c) $5\frac{2}{5} = \frac{27}{5}$

(d) $11\frac{1}{13} = \frac{144}{13}$

9. (a) $\frac{4}{7}, \frac{5}{9}$: unlike fraction

(b) $\frac{2}{8}, \frac{3}{8}$: like fraction

(c) $\frac{11}{19}, \frac{11}{15}$: unlike fraction

(d) $\frac{9}{15}, \frac{7}{15}$: like fraction

10. (a) $\frac{5}{4}, \frac{3}{1}, \frac{2}{3}, \frac{6}{5}$: unlike

(b) $\frac{1}{2}, \frac{3}{4}, \frac{5}{6}, \frac{6}{7}$: unlike

(c) $\frac{4}{9}, \frac{2}{9}, \frac{5}{9}, \frac{8}{9}$: like

(d) $\frac{1}{6}, \frac{5}{6}, \frac{7}{6}, \frac{8}{6}$: like

11. (a) $\frac{3}{5}, \frac{1}{5}$

Since, denominators are same and $3 > 1$,

So, $\enclose{circle}{\frac{3}{5}} > \frac{1}{5}$

(b) $\frac{4}{9}, \frac{3}{9}$

Since, denominators are same and $4 > 3$,

So, $\enclose{circle}{\frac{4}{9}} > \frac{3}{9}$

(c) $\frac{3}{7}, \frac{5}{7}$

Since, denominators are same and $5 > 3$,

So, $\enclose{circle}{\frac{5}{7}} > \frac{3}{7}$

(d) $\frac{11}{21}, \frac{8}{21}$

Since, denominator are some and $11 > 8$,

So, $\enclose{circle}{\frac{11}{21}} > \frac{8}{21}$

12. (a) $\frac{3}{5}, \frac{1}{6}$

Using cross multiplication, $3 \times 6 > 5 \times 1$,

So, $\frac{3}{5} > \enclose{circle}{\frac{1}{6}}$

(b) $\frac{8}{12}, \frac{8}{10}$

Since $8 \times 10 < 8 \times 12$,

So, $\frac{8}{10} > \enclose{circle}{\frac{8}{12}}$

(c) $\frac{6}{7}, \frac{6}{5}$

$6 \times 5 < 7 \times 6$,

So, $\enclose{circle}{\frac{6}{7}} < \frac{6}{5}$

(d) $\frac{8}{9}, \frac{17}{9}$

Since, denominators are same and $8 < 17$

So, $\frac{8}{9} < \frac{17}{9}$

13. (a) $\frac{5}{11}, \frac{5}{13}$

$5 \times 13 > 5 \times 11$, So, $\frac{5}{11} > \frac{5}{13}$

(b) $\frac{7}{25}, \frac{8}{25}$

Since, denominators are same and $8 > 7$, So, $\frac{8}{25} > \frac{7}{25}$

(c) $\frac{11}{13}, \frac{13}{11}$

$11 \times 11 < 13 \times 13$, So, $\frac{13}{11} > \frac{11}{13}$

(d) $\frac{49}{127}, \frac{81}{127}$

Since, denominators are same and $81 > 49$, So, $\frac{81}{127} > \frac{49}{127}$

14. (a) $\frac{2}{9}, \frac{11}{15}$

$15 \times 2 < 11 \times 9$, So, $\frac{2}{9} < \frac{11}{15}$

(b) $5\frac{1}{6}, \frac{21}{4}$

$= \frac{31}{6}, \frac{21}{4}$

$31 \times 4 < 21 \times 6$, So, $\frac{31}{6} < \frac{21}{4}$

(c) $\frac{13}{23}, \frac{12}{23}$

Since, denominators are same,

So, $\frac{12}{23} < \frac{13}{23}$

(d) $3\frac{2}{5}, \frac{17}{4}$

$= \frac{17}{5}, \frac{17}{4}$

$17 \times 4 < 17 \times 5$, So, $\frac{17}{5} < \frac{17}{4}$

15. (a) $\frac{2}{1}, \frac{21}{10}$

$2 \times 10 < 21$, So, $\frac{2}{7} < \frac{21}{10}$

(b) $5\frac{1}{6}, \frac{21}{4}$

$= \frac{31}{6}, \frac{21}{4}$

$31 \times 4 < 21 \times 6$, So, $\frac{31}{6} < \frac{21}{4}$

(c) $4\frac{2}{7}, \frac{13}{3}$

$= \frac{30}{7}, \frac{13}{3}$

$30 \times 3 < 13 \times 7$, So, $\frac{30}{7} < \frac{13}{3}$

(d) $\frac{15}{7}, 1\frac{7}{9}$

$= \frac{15}{7}, \frac{16}{9}$

$15 \times 9 > 16 \times 7$, So, $\frac{15}{7} > \frac{16}{9}$

16. (a) $3\frac{1}{5} \boxed{=} \frac{16}{5}$ (b) $\frac{5}{13} \boxed{<} \frac{21}{26}$

(c) $\frac{5}{28} \boxed{<} \frac{4}{21}$ (d) $\frac{12}{3} \boxed{>} \frac{6}{9}$

Must Practice Exercise 6
Text Book Exercise

1. (a) $\frac{1}{4} \boxed{<} \frac{3}{4}$ (b) $\frac{1}{2} \boxed{=} \frac{1}{2}$

(c) $\frac{1}{3} \boxed{<} \frac{1}{2}$ (d) $\frac{1}{4} \boxed{<} \frac{2}{3}$

2. (a) $\frac{8}{5} = 1\frac{3}{5}$

(b) $\frac{13}{6} = 2\frac{1}{6}$

(c) $\frac{3}{2} = 1\frac{1}{2}$

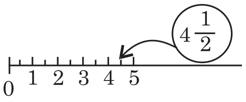
(d) $\frac{7}{4} = 1\frac{3}{4}$

3. (a) $\frac{3}{4}$: three by four

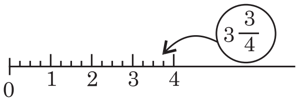
(b) $1\frac{2}{5}$: one and two by five

(c) $2\frac{3}{5}$: two and three by five

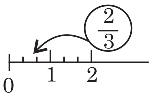
4. (a) $4\frac{1}{2}$



(b) $3\frac{3}{4}$



(c) $\frac{2}{3}$



5. (a) $1\frac{3}{5}$ (b) $5\frac{7}{8}$ (c) $8\frac{3}{7}$

(d) $51\frac{3}{5}$ (e) $53\frac{2}{3}$

Additional Exercise

1. (c) $\frac{3}{6}$

2. (d) $2\frac{3}{5}$

3. (b) >

4. (d) $\frac{1}{3}$

5. (d) $3\frac{1}{4}$

6. (d) infinite

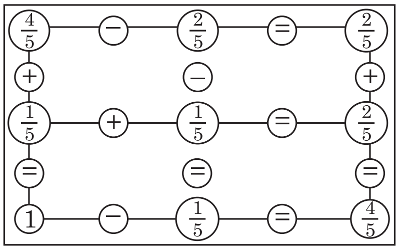
7. (a) three and one-fifth

8. (b) six and two-third

9. (c) $\frac{3}{6}$

Fun-Zone

1.



2. For a 200 g pack,
servings = 3
water needed = 2.5 cups

(i) For a 500 g pack,

water needed = $\frac{500}{200} \times 2.5 = 6.25$ cups

(ii) We need 200 g pack for 3 servings for 15 servings, we need :

$$200 \times \frac{15}{3} = 1000 \text{ g or } 1 \text{ kg}$$

Chapter 7 : Equivalent Fractions

Exercise 7.1

1. (a) $\frac{7}{9} = \frac{7\times2}{9\times2} = \frac{7\times3}{9\times3} = \frac{7\times4}{9\times4}$

$\frac{14}{18} = \frac{21}{27} = \frac{28}{36}$

(b) $\frac{2}{7} = \frac{2\times2}{7\times2} = \frac{2\times3}{7\times3} = \frac{2\times4}{7\times4}$

$\frac{4}{14} = \frac{6}{21} = \frac{8}{28}$

(c) $\frac{50}{75} = \frac{50\times2}{75\times2} = \frac{50\times3}{75\times3} = \frac{50\times4}{75\times4}$

$\frac{100}{150} = \frac{150}{225} = \frac{200}{300}$

(d) $\frac{9}{12} = \frac{9\times2}{12\times2} = \frac{9\times3}{12\times3} = \frac{9\times4}{12\times4}$

$\frac{18}{24} = \frac{27}{36} = \frac{36}{48}$

(e) $\frac{11}{13} = \frac{11\times2}{13\times2} = \frac{11\times3}{13\times3} = \frac{11\times4}{13\times4}$

$\frac{22}{26} = \frac{33}{39} = \frac{44}{52}$

2. (a) $\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{4}{20} = \frac{5}{25} = \frac{6}{30}$

(b) $\frac{2}{7} = \frac{4}{14} = \frac{6}{21} = \frac{8}{28} = \frac{10}{35} = \frac{12}{42}$

(c) $\frac{4}{5} = \frac{8}{10} = \frac{12}{15} = \frac{16}{20} = \frac{20}{25} = \frac{24}{30}$

3. (a) $\frac{2}{5} = \frac{16}{\boxed{40}}$

$$\left[\square \times 2 = 16 \times 5 \Rightarrow \square = \frac{16 \times 5}{2} = 8 \times 5 = 40\right]$$

(b) $\frac{4}{9} = \frac{\boxed{20}}{45}$

$$\left[\square \times 9 = 45 \times 4 \Rightarrow \square = \frac{45 \times 4}{9} = 5 \times 4 = 20\right]$$

(c) $\frac{60}{\boxed{65}} = \frac{12}{13}$

$$\left[\square \times 12 = 60 \times 13 \Rightarrow \square = \frac{60 \times 13}{12} = 5 \times 13 = 65\right]$$

(d) $\frac{\boxed{27}}{36} = \frac{3}{4}$

$\left[\square \times 4 = 3 \times 36 \Rightarrow \square = \frac{3 \times 36}{4} = 3 \times 9 = 27\right]$

(e) $\frac{9}{27} = \frac{\boxed{1}}{3}$

$\left[\square \times 27 = 9 \times 3 \Rightarrow \square = \frac{9 \times 3}{27} = 1\right]$

4. (a) $\frac{4}{5} = \frac{32}{\square}$

$\left[\square \times 4 = 32 \times 5 \Rightarrow \square = \frac{32 \times 5}{4} = 8 \times 5 = 40\right]$

(b) $\frac{4}{5} = \frac{\square}{25}$

$\left[\square \times 5 = 25 \times 4 \Rightarrow \square = \frac{25 \times 4}{5} = 5 \times 4 = 20\right]$

5. (a) $\frac{2}{9}$ and $\frac{18}{81}$

$\frac{2}{9} = \frac{18}{81}$

After cross multiplication, $81 \times 2 = 18 \times 9$

$\Rightarrow 162 = 162$ (equivalent)

(b) $\frac{5}{7}$ and $\frac{35}{94}$

After cross multiplication, $5 \times 94 = 35 \times 7$

$\Rightarrow 470 \neq 245$ (Not equivalent)

(c) $\frac{9}{11}$ and $\frac{11}{9}$

$\frac{9}{11} = \frac{11}{9}$

After cross-multiplication, $9 \times 9 = 11 \times 11$

$\Rightarrow 81 \neq 121$ (Not equivalent)

(d) $\frac{1}{2}$ and $\frac{40}{80}$

$\frac{1}{2} = \frac{40}{80}$

After cross-multiplication, $80 \times 1 = 40 \times 2$

$\Rightarrow 80 = 80$ (equivalent)

(e) $\frac{9}{7}$ and $\frac{18}{14}$

$\frac{9}{7} = \frac{18}{14}$

After cross-multiplication, $9 \times 14 = 18 \times 7$

$\Rightarrow 126 = 126$ (equivalent)

6. (a) $\frac{2}{3}, \frac{8}{12}, \frac{20}{30}, \enclose{circle}{\frac{16}{21}}, \frac{104}{156}$

$\frac{2}{3} = \frac{8}{12} = \frac{20}{30} = \frac{16}{21} = \frac{104}{156}$

$2 \times 12 = 3 \times 8 \Rightarrow 24 = 24$

$2 \times 21 = 3 \times 16 \Rightarrow 42 \neq 48$

$2 \times 156 = 3 \times 104 \Rightarrow 312 = 312$

(b) $\frac{32}{60}, \frac{16}{30}, \enclose{circle}{\frac{7}{15}}, \frac{80}{150}, \frac{64}{120}$

$\frac{32}{60} = \frac{16}{30} = \frac{7}{15} = \frac{80}{150} = \frac{64}{120}$

$32 \times 30 = 60 \times 16 \Rightarrow 960 = 960$

$32 \times 15 = 60 \times 7 \Rightarrow 480 \neq 420$

$32 \times 150 = 60 \times 80 \Rightarrow 4800 = 4800$

$32 \times 120 = 60 \times 64 \Rightarrow 3840 = 3840$

(c) $\enclose{circle}{\frac{9}{18}}, \frac{6}{11}, \frac{18}{33}, \frac{42}{77}, \frac{60}{110}$

$\frac{9}{18} = \frac{6}{11} = \frac{18}{33} = \frac{42}{77} = \frac{60}{110}$

$9 \times 11 = 18 \times 6 \Rightarrow 99 \neq 108$

$6 \times 33 = 11 \times 18 \Rightarrow 198 = 198$

$18 \times 77 = 33 \times 42 \Rightarrow 1386 = 1386$

$42 \times 110 = 77 \times 60 \Rightarrow 4620 = 4620$

(d) $\frac{7}{16}, \enclose{circle}{\frac{20}{64}}, \frac{42}{96}, \frac{35}{80}, \frac{14}{32}$

$\frac{7}{16} = \frac{20}{64} = \frac{42}{96} = \frac{35}{80} = \frac{14}{32}$

$7 \times 64 = 20 \times 16 \Rightarrow 448 \neq 320$

$20 \times 96 = 64 \times 92 \Rightarrow 1920 \neq 2688$

$42 \times 80 = 96 \times 35 \Rightarrow 3360 = 3360$

$35 \times 32 = 80 \times 14 \Rightarrow 1120 = 1120$

7. Total number of portions = 18

Number of shaded portion = 7

Number of unshaded portion = 11

fraction of shaded portion $= \frac{7}{18}$

$\frac{7}{18} = \frac{21}{54} \Rightarrow 54 \times 7 = 21 \times 18 \Rightarrow 378 = 378$

Fraction of unshaded portion $= \frac{11}{18}$

Equivalent fraction of $\frac{11}{18} = \frac{11 \times 2}{18 \times 2} = \frac{11 \times 3}{18 \times 3}$

$\frac{11}{18} = \frac{22}{36} = \frac{33}{54}$

8. (a) $\frac{2}{5} + \frac{21}{10}$

$\frac{4+21}{10} = \frac{25}{10} = 2\frac{5}{10}$

(b) $5\frac{1}{6} + \frac{21}{4}$

$= \frac{31}{6} + \frac{21}{4}$

$\frac{124+126}{24} = \frac{250}{24} = 10\frac{10}{24}$

(c) $4\frac{2}{7} + \frac{13}{3}$

$= \frac{30}{7} + \frac{13}{3}$

$\frac{90+91}{21} = \frac{181}{21} = 8\frac{13}{21}$

(d) $\frac{15}{7} + 1\frac{7}{9}$

$= \frac{15}{7} + \frac{16}{9}$

$\frac{135+112}{63} = \frac{247}{63} = 3\frac{58}{63}$

9. (a) $3\frac{1}{5} - \frac{16}{5}$

$= \frac{16}{5} - \frac{16}{5} = 0$

(b) $\frac{21}{26} - \frac{5}{13}$

$\frac{21-10}{20} = \frac{11}{26}$

(c) $\frac{4}{21} - \frac{5}{28}$

$\frac{16-15}{84} = \frac{1}{84}$

(d) $\frac{12}{3} - \frac{15}{9}$

$\frac{36-15}{9} = \frac{21}{9} = 2\frac{3}{9}$

(e) $11\frac{2}{7} - 1\frac{9}{11}$

$= \frac{79}{7} - \frac{20}{11}$

$\frac{869-140}{77} = \frac{729}{77} = 9\frac{36}{77}$

10. (a) $\frac{5}{2} + \frac{2}{7}$

$\frac{35+4}{14} = \frac{39}{14} = 2\frac{11}{14}$

(b) $4 + 3\frac{4}{5}$

$= \frac{4}{1} + \frac{19}{5}$

$\frac{20+19}{5} = \frac{39}{5} = 7\frac{4}{5}$

(c) $\frac{8}{11} - \frac{2}{11} = \frac{8-2}{11} = \frac{6}{11}$

(d) $1\frac{2}{13} - \frac{4}{9}$

$= \frac{15}{13} - \frac{4}{9}$

$\frac{135-52}{117} = \frac{83}{117}$

(e) $\frac{7}{9} \times 4$

$= \frac{28}{9} = 3\frac{1}{9}$

(f) $5\frac{1}{8} \times 2$

$= \frac{41}{8} \times 2 = \frac{82}{8} = 10\frac{2}{8}$

(g) $\frac{1}{2} \div \frac{1}{3}$

$= \frac{1}{2} \times \frac{3}{1} = \frac{3}{2}$

(h) $\frac{3}{5} \div \frac{9}{10}$

$= \frac{3}{5} \times \frac{10}{9} = \frac{2}{3}$

11. Wall painted by Madan $= \frac{2}{3}$

Wall painted by Seema $= \frac{2}{9}$

Wall painted by Mohan $= 1 - \left(\frac{2}{3} + \frac{2}{9}\right)$

$= 1 - \left(\frac{6+2}{9}\right)$

$= \frac{1}{1} - \frac{8}{9}$

$= \frac{9-8}{9} = \frac{1}{9}$

Wall painted by Mohan $= \frac{1}{9}$

12. Vessel capacity $= 2\frac{3}{15}$ litre

Quantity drank by dog $= 1\frac{1}{15}$ litre

Milk left $= 2\frac{3}{15} - 1\frac{1}{15}$

$= \frac{33}{15} - \frac{16}{15}$

$= \frac{17}{15} = 1\frac{2}{15}$ litre

13. Cost of 1 litre of milk = ₹ $18\frac{3}{5}$ = ₹ $\frac{93}{5}$

Cost of $15\frac{1}{2}$ litres of milk $= \frac{93}{5} \times 15\frac{1}{2}$

$= \frac{93}{5} \times \frac{31}{2}$

$= \frac{2883}{10}$ = ₹ $288\frac{3}{10}$

14. Cost of $3\frac{1}{2}$ metres of cloth = ₹ $57\frac{3}{4}$

Cost of 1 metre of cloth $= 57\frac{3}{4} \div 3\frac{1}{2}$

$= \frac{231}{4} \div \frac{7}{2}$

$= \frac{231}{4} \times \frac{2}{7}$

$= \frac{462}{14}$

$= \frac{33}{2}$ = ₹ $16\frac{1}{2}$

15. Total length of ribbon $= 8\frac{2}{5}$ m

Total number of pieces = 56

Length of each piece $= 8\frac{2}{5} \div 56$

$= \frac{42}{5} \div 56$

$= \frac{42}{5} \times \frac{1}{56} = \frac{42}{280} = \frac{3}{20}$ m

Must Practice Exercise 7
Text Book Exercise

1. (a) $\frac{1}{2}$

$= \frac{1 \times 2}{2 \times 2} = \frac{2}{4}$

(b) $\frac{2}{3}$

$= \frac{2 \times 2}{3 \times 2} = \frac{4}{6}$

(c) $\frac{1}{5}$

$= \frac{1}{5} \times \frac{2}{2} = \frac{2}{10}$

(d) $\frac{2}{5}$

$= \frac{2 \times 2}{5 \times 2} = \frac{4}{10}$

(e) $\frac{2}{7}$

$= \frac{2}{7} \times \frac{2}{2} = \frac{4}{14}$

2. (a) $\frac{1}{4}$

$= \frac{1}{4} \times \frac{3}{3} = \frac{3}{12}$

(b) $\frac{3}{5}$

$= \frac{3}{5} \times \frac{3}{3} = \frac{9}{15}$

(c) $\frac{2}{5}$

$= \frac{2}{5} \times \frac{3}{3} = \frac{6}{15}$

(d) $\frac{2}{7}$

$= \frac{2}{7} \times \frac{3}{3} = \frac{6}{21}$

(e) $\frac{1}{6}$

$= \frac{1}{6} \times \frac{3}{3} = \frac{3}{18}$

3. (a) $\frac{1}{4}$

$\Rightarrow \frac{1}{4} = \frac{1}{4} \times \frac{2}{2} = \frac{1}{4} \times \frac{3}{3} = \frac{1}{4} \times \frac{4}{4}$

$\Rightarrow \frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16}$

(b) $\frac{2}{5}$

$\Rightarrow \frac{2}{5} = \frac{2}{5} \times \frac{2}{2} = \frac{2}{5} \times \frac{3}{3} = \frac{2}{5} \times \frac{4}{4}$

$\Rightarrow \frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{8}{20}$

(c) $\frac{2}{3}$

$\Rightarrow \frac{2}{3} = \frac{2}{3} \times \frac{2}{2} = \frac{2}{3} \times \frac{3}{3} = \frac{2}{3} \times \frac{4}{4}$

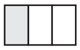
$\Rightarrow \frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12}$

(d) $\frac{3}{4}$

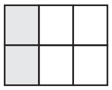
$\Rightarrow \frac{3}{4} = \frac{3}{4} \times \frac{2}{2} = \frac{3}{4} \times \frac{3}{3} = \frac{3}{4} \times \frac{4}{4}$

$\Rightarrow \frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16}$

4. (a)

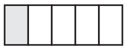


(b)

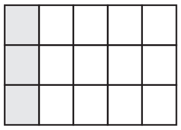


$\frac{1}{3} = \frac{2}{6}$

(c)



(d)



$\frac{1}{5} = \frac{3}{15}$

5. (a) $\frac{1 \times 3}{3 \times 3} = \frac{\boxed{3}}{9}$

$3 \times 9 = \square \times 9 \Rightarrow \square = \frac{3 \times 9}{9} = 3$

(b) $\frac{2}{5} = \frac{\boxed{6}}{15}$

$\square \times 5 = 2 \times 15 \Rightarrow \square = \frac{2 \times 15}{5} = 6$

(c) $\frac{5}{\boxed{3}} = \frac{15}{9}$

$\square \times 15 = 9 \times 5 \Rightarrow \square = \frac{9 \times 5}{15} = 3$

(d) $\frac{3}{4} = \frac{18}{\boxed{24}}$

$\square \times 3 = 18 \times 4 \Rightarrow \square = \frac{18 \times 4}{3} = 24$

(e) $\frac{14 \div 7}{21 \div 7} = \frac{\boxed{7}}{3}$

$3 \times \square = 3 \times 7 \Rightarrow \square = \frac{3 \times 7}{3} = 7$

(f) $\frac{12 \div 4}{16 \div 4} = \frac{3}{\boxed{4}}$

$3 \times \square = 3 \times 4 \Rightarrow \square = \frac{3 \times 4}{3} = 4$

6. $\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \boxed{\frac{4}{16}} = \boxed{\frac{5}{20}} = \boxed{\frac{6}{24}}$

$\Rightarrow \frac{1}{4} = \frac{1}{4} \times \frac{2}{2} = \frac{1}{4} \times \frac{3}{3} = \frac{1}{4} \times \frac{4}{4} = \frac{1}{4} \times \frac{5}{5} = \frac{1}{4} \times \frac{6}{6}$

$\Rightarrow \frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = \frac{5}{20} = \frac{6}{24}$

7. $\frac{1}{5}$

4 equivalent fraction of

$\frac{1}{5} = \frac{1}{5} \times \frac{2}{2} = \frac{1}{5} \times \frac{3}{3} = \frac{1}{5} \times \frac{4}{4} = \frac{1}{5} \times \frac{5}{5}$

$\Rightarrow \frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{4}{20} = \frac{5}{25}$

8. Length of ribbon = 6 metres

Ribbon is equally divided between 4 friends.

Length of ribbon each friend will get = 6 ÷ 4

$= 6 \times \frac{1}{4} = \frac{6}{4}$

9. Cloth needs to make one shirt = $1\frac{1}{4}$ metre

Cloth needs to make two shirts = $1\frac{1}{4} \times 2$

$= \frac{5}{4} \times 2 = \frac{10}{4}$ metres $= 2\frac{2}{4}$ metre

Additional Exercise

1. (a) $\frac{2}{3}$

3 equivalent fractions of $\frac{2}{3} = \frac{2}{3} \times \frac{2}{2}$

$= \frac{2}{3} \times \frac{3}{3} = \frac{2}{3} \times \frac{4}{4}$

$\Rightarrow \frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12}$

(b) $\frac{1}{7}$

3 equivalent fractions of $\frac{1}{7} = \frac{1}{7} \times \frac{2}{2}$

$= \frac{1}{7} \times \frac{3}{3} = \frac{1}{7} \times \frac{4}{4}$

$\Rightarrow \frac{1}{7} = \frac{2}{14} = \frac{3}{21} = \frac{4}{28}$

2. (a) $\frac{2}{5}$

$\Rightarrow \frac{2}{5} = \frac{2}{5} \times \frac{2}{2} = \frac{2}{5} \times \frac{3}{3} = \frac{2}{5} \times \frac{4}{4}$

$\Rightarrow \frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{8}{20}$

(b) $\frac{3}{4}$

$\Rightarrow \frac{3}{4} = \frac{3}{4} \times \frac{2}{2} = \frac{3}{4} \times \frac{3}{3} = \frac{3}{4} \times \frac{4}{4}$

$\Rightarrow \frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16}$

3. (a) $\frac{3}{5}$

$\Rightarrow \frac{3}{5} = \frac{3}{5} \times \frac{2}{2} = \frac{3}{5} \times \frac{3}{3} = \frac{3}{5} \times \frac{4}{4}$

$$\Rightarrow \frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20}$$

(b) $\frac{2}{7}$

$$\Rightarrow \frac{2}{7} = \frac{2}{7} \times \frac{2}{2} = \frac{2}{7} \times \frac{3}{3} = \frac{2}{7} \times \frac{4}{4}$$

$$\Rightarrow \frac{2}{7} = \frac{4}{14} = \frac{6}{21} = \frac{8}{28}$$

4. (a) $\frac{2}{3}$

$$\Rightarrow \frac{2}{3} = \frac{2}{3} \times \frac{2}{2} = \frac{2}{3} \times \frac{3}{3} = \frac{2}{3} \times \frac{4}{4}$$

$$\Rightarrow \frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12}$$

(b) $\frac{4}{5}$

$$\Rightarrow \frac{4}{5} = \frac{4}{5} \times \frac{2}{2} = \frac{4}{5} \times \frac{3}{3} = \frac{4}{5} \times \frac{4}{4}$$

$$\Rightarrow \frac{4}{5} = \frac{8}{10} = \frac{12}{15} = \frac{16}{20}$$

5. (a) $\frac{1}{4}$

$$\Rightarrow \frac{1}{4} \times \frac{3}{3} = \frac{3}{12}$$

(b) $\frac{3}{4}$

$$\Rightarrow \frac{3}{4} \times \frac{3}{3} = \frac{9}{12}$$

(c) $\frac{2}{3}$

$$\Rightarrow \frac{2}{3} \times \frac{3}{3} = \frac{6}{9}$$

(d) $\frac{2}{9}$

$$\Rightarrow \frac{2}{9} \times \frac{3}{3} = \frac{6}{27}$$

(e) $\frac{5}{6}$

$$\Rightarrow \frac{5}{6} \times \frac{3}{3} = \frac{15}{18}$$

6. (a) $\frac{1 \times 4}{3 \times 4} = \frac{\boxed{4}}{12}$

$$12 \times \square = 12 \times 4 \Rightarrow \square = \frac{12 \times 4}{12} = 4$$

(b) $\frac{2}{5} = \frac{\boxed{10}}{25}$

$$\square \times 5 = 2 \times 25 \Rightarrow \square = \frac{2 \times 25}{5} = 10$$

(c) $\frac{10}{6} = \frac{\boxed{15}}{9}$

$$\square \times 15 = 10 \times 9 \Rightarrow \square = \frac{10 \times 9}{15} = 6$$

(d) $\frac{3}{4} = \frac{24}{\boxed{32}}$

$$\square \times 3 = 24 \times 4 \Rightarrow \square = \frac{24 \times 4}{3} = 32$$

(e) $\frac{14 \times 7}{21 \times 7} = \frac{\boxed{98}}{147}$

$$\square \times 147 = 147 \times 98$$

$$\Rightarrow \square = \frac{147 \times 98}{147} = 98$$

(f) $\frac{12 \times 4}{16 \times 4} = \frac{48}{\boxed{64}}$

$$\square \times 48 = 48 \times 64 \Rightarrow \square = \frac{48 \times 64}{48} = 64$$

Fun-Zone

(a) $\frac{10}{12} = \frac{5}{6}$ (b) $\frac{3}{6} = \frac{1}{2}$

(c) $\frac{10}{15} = \frac{2}{3}$ (d) $\frac{8}{16} = \frac{4}{8}$

(e) $\frac{2}{4} = \frac{1}{2}$ (f) $\frac{7}{8} = \frac{14}{16}$

(g) $\frac{5}{15} = \frac{1}{3}$ (h) $\frac{4}{8} = \frac{1}{2}$

Chapter 8 : Patterns

Exercise 8.1

1–5 : Do by yourself

6. (a) $\boxed{\frac{1}{4}}\ \boxed{\frac{1}{2}}\ \boxed{1}\ \boxed{2}\ \boxed{4}\ \boxed{8}$

$$\frac{1}{4} \times 2 = \frac{1}{2}$$

$$\frac{1}{2} \times 2 = 1$$

$$1 \times 2 = 2$$

$$2 \times 2 = 4$$

$$4 \times 2 = 8$$

(b) $\boxed{3\frac{1}{4}}\ \boxed{3}\ \boxed{2\frac{1}{2}}\ \boxed{2}\ \boxed{1\frac{1}{2}}\ \boxed{1}$

$$3\frac{1}{2} - \frac{1}{2} = 3$$

$$3 - \frac{1}{2} = 2\frac{1}{2}$$

$$2\frac{1}{2} - \frac{1}{2} = 2$$

$$2 - \frac{1}{2} = 1\frac{1}{2}$$

$$1\frac{1}{2} - \frac{1}{2} = 1$$

(c) $\boxed{990}$ $\boxed{99}$ $\boxed{9.9}$ $\boxed{.99}$ $\boxed{.099}$ $\boxed{.0099}$

$990 \div 10 = 99$
$99 \div 10 = 9.9$
$9.9 \div 10 = .99$
$.99 \div 10 = .099$ $.099 \div 10 = .0099$

(d) $\boxed{.001}$ $\boxed{.01}$ $\boxed{.1}$ $\boxed{1}$ $\boxed{10}$ $\boxed{100}$

$.001 \times 10 = .01$
$.01 \times 10 = .1$
$.1 \times 10 = 1$
$1 \times 10 = 10$
$10 \times 10 = 100$

(e) $\boxed{10}$ $\boxed{19}$ $\boxed{30}$ $\boxed{43}$ $\boxed{58}$ $\boxed{75}$ $\boxed{94}$

$10 + 9 = 19$
$19 + 11 = 30$
$30 + 13 = 43$
$43 + 15 = 58$
$58 + 17 = 75$
$75 + 19 = 94$

(f) $\boxed{6}$ $\boxed{22}$ $\boxed{46}$ $\boxed{78}$ $\boxed{118}$ $\boxed{166}$ $\boxed{222}$

$6 + 16 = 22$
$22 + 24 = 46$
$46 + 32 = 78$
$78 + 40 = 118$
$118 + 48 = 166$
$166 + 56 = 222$

7. (a) $45 \times 45 = \underline{2025}$

(b) $55 \times 55 = \underline{3025}$

(c) $65 \times 65 = \underline{4225}$

(d) $85 \times 85 = \underline{7225}$

8. $1 + 1 = 2$
$1 + 2 + 1 = 4$
$1 + 2 + 3 + 2 + 1 = 9$
$1 + 2 + 3 + 4 + 3 + 2 + 1 = 16$
$1 + 2 + 3 + 4 + 5 + 4 + 3 + 2 + 1 = 25$
$1 + 2 + 3 + 4 + 5 + 6 + 5 + 4 + 3 + 2 + 1 = 36$
$1 + 2 + 3 + 4 + 5 + 6 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 49$

9. (a)

8	1	6
3	5	7
4	9	2

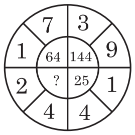
Sum of all rows (vertically and horizontally) = 15

(b)

22	29	6	13	20
28	10	12	19	21
9	11	18	25	27
15	17	24	26	8
16	23	30	7	14

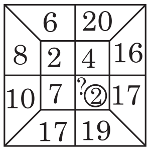
Sum of all rows (vertical and horizontal) = 90

10. (a)



$(3 + 9)^2 = 144$
$(4 + 1)^2 = 25$
$(7 + 1)^2 = 64$
$(2 + 4)^2 = \underline{36}$

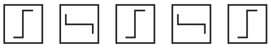
(b)



$2 + 6 = 8$
$4 + 16 = 20$
$10 + 7 = 17$
$\underline{2} + 17 = 19$

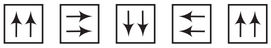
Must Practice Exercise 8
Text Book Exercise

1. (a)



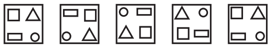
Turn by 90° $\left(\frac{1}{4}\right)$

(b)



Turn by 90° $\left(\frac{1}{4}\right)$

(c)



Turn by 90° $\left(\frac{1}{4}\right)$

2. (a) 7, 12, 17, 22, $\underline{27}$, $\underline{32}$

$7 + 5 = 12$
$12 + 5 = 17$
$17 + 5 = 22$
$22 + 5 = 27$
$27 + 5 = 32$

(b) 10, 20, 30, 40, $\underline{50}$, 60

$10 + 10 = 20$
$20 + 10 = 30$
$30 + 10 = 40$
$40 + 10 = 50$
$50 + 10 = 60$

(c) 29, 24, 19, 14, $\underline{9}$, $\underline{4}$

$29 - 24 = 5$
$24 - 19 = 5$
$19 - 14 = 5$
$14 - 9 = 5$
$9 - 4 = 5$

3. (a)

864
12 72
2 6 12
1 2 3 4

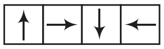
$1 \times 2 = 2$
$2 \times 3 = \underline{6}$
$3 \times 4 = 12$
$2 \times \underline{6} = \underline{12}$
$\underline{6} \times 12 = \underline{72}$
$12 \times \underline{72} = \underline{864}$

(b)

68
32 36
15 17 19
7 8 9 10

$7 + 8 = 15$
$8 + 9 = \underline{17}$
$9 + 10 = 19$
$15 + \underline{17} = \underline{32}$
$\underline{17} + 19 = \underline{36}$
$\underline{32} + \underline{36} = \underline{68}$

Additional Exercise

1. 

Turn by 90° $\left(\frac{1}{4}\right)$

(c)

2. (a) 6, 10, 14, 18, $\underline{22}$, $\underline{26}$

$6 + 4 = 10$
$10 + 4 = 14$
$14 + 4 = 18$
$18 + 4 = \underline{22}$
$\underline{22} + 4 = \underline{26}$

(b) 35, 29, 23, 17, $\underline{11}$, $\underline{5}$

$35 - 6 = 29$
$29 - 6 = 23$
$23 - 6 = 17$
$17 - 6 = \underline{11}$
$\underline{11} - 6 = \underline{5}$

3. (a)

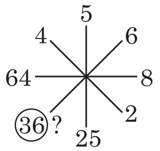
270
18 15
6 3 5
2 3 1 5

$2 \times 3 = 6$
$3 \times 1 = \underline{3}$
$1 \times 5 = 5$
$6 \times \underline{3} = \underline{18}$
$\underline{3} \times 5 = \underline{15}$
$18 \times \underline{15} = \underline{270}$

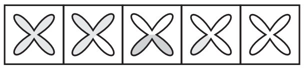
(b)

12
2 6
1 2 3

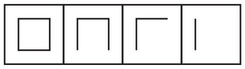
$1 \times \underline{2} = 2$
$\underline{2} \times 3 = \underline{6}$
$2 \times \underline{6} = \underline{12}$

(c) 

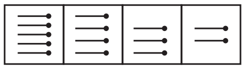
$(2)^2 = 4$
$(5)^2 = 25$
$(8)^2 = 64$
$(6)^2 = \underline{36}$

4. (a) 

By unshading by 1 sector

(b) 

By removing line segments anticlockwise

(c) 

By removing one stick

Fun-Zone

1.

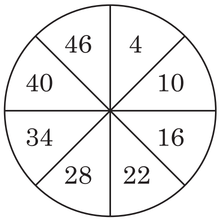
$1 = 1$ (1×1)
$1 + 3 = 4$ (2×2)
$1 + 3 + 5 = 9$ (3×3)
$1 + 3 + 5 + 7 = \underline{16}$ $(\underline{4} \times \underline{4})$
$\underline{1 + 3 + 5 + 7 + 9} = 25$ $(\underline{5} \times \underline{5})$
$1 + 3 + 5 + 7 + 9 + 11 + 13 = \underline{49}$ $(\underline{7} \times \underline{7})$

2.

$(2 \times 2) - (1 \times 1) = 3$ $(2 + 1)$
$(3 \times 3) - (2 \times 2) = 5$ $(3 + 2)$
$(4 \times 4) - (3 \times 3) = 7$ $(4 + 3)$
$(5 \times 5) - (4 \times 4) = 9$ $(5 + 4)$
$(6 \times 6) - (5 \times 5) = 11$ $(6 + 5)$

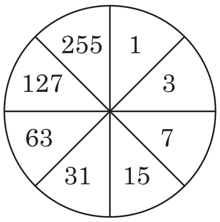
3.

12 24 12 ⟶ $12 + 12 = 24$
22 11 66 22 11 ⟶ $22 + 11 + 22 + 11 = 66$
25 10 5 80 5 10 25 ⟶ $25 + 10 + 5 + 5 + 10 + 25 = 80$
20 15 70 15 20 ⟶ $20 + 15 + 20 + 15 = 70$
19 38 19 ⟶ $19 + 19 = 38$

4. (a) 

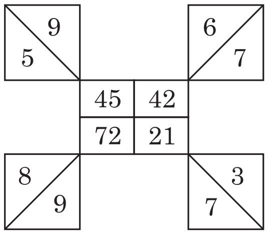
$4 + 6 = 10$
$10 + 6 = 16$
$16 + 6 = 22$
$22 + 6 = 28$
$28 + 6 = 34$
$34 + 6 = 40$
$40 + 6 = 46$

(b)



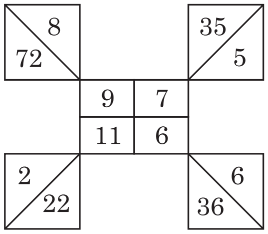
$255 - 127 = 128$
$127 - 63 = 64$
$63 - 31 = 32$
$31 - 15 = 16$
$15 - 7 = 8$
$7 - 3 = 4$
$3 - 1 = 2$

(c)



$5 \times 9 = 45$
$6 \times \underline{7} = 42$
$8 \times 9 = \underline{72}$
$\underline{3} \times \underline{7} = 21$

(d)

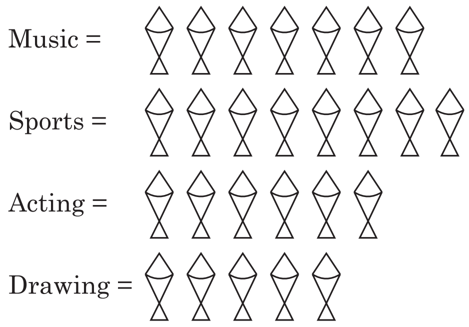


$35 \div 5 = \underline{7}$
$\underline{36} \div 6 = 6$
$22 \div 2 = \underline{11}$
$72 \div 8 = 9$

***Chapter 9* : Data**

Exercise 9.1

1. One = 5 students



2. Given, = 5 ice-cream

Vanilla = 3 × 5 = 15
Pista = 5 × 5 = 25
Strawberry = 2 × 5 = 10
Mango = 6 × 5 = 30
Chocolate = 4 × 5 = 20

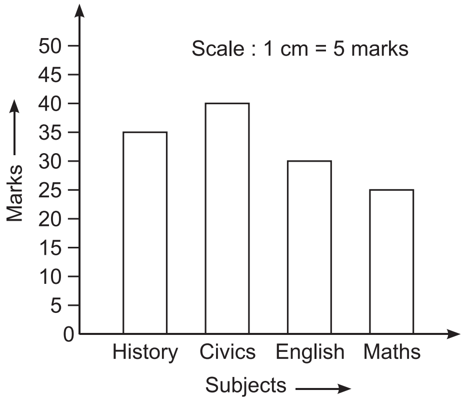
3. Let, □ = 5 animals

Cows = □□□□
Buffaloes = □□□□□□
Calves = □□□□
Bullocks = □□□□□□□□

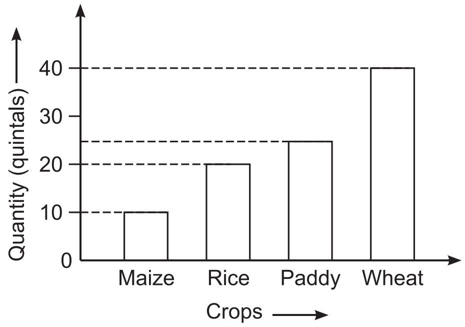
4. Let, ▭ = ₹ 50

Ram = ▭▭▭▭▭▭▭▭
Sohan = ▭▭▭▭▭▭
Mohan = ▭▭▭▭▭▭▭
Dumpy = ▭▭▭▭▭

5.



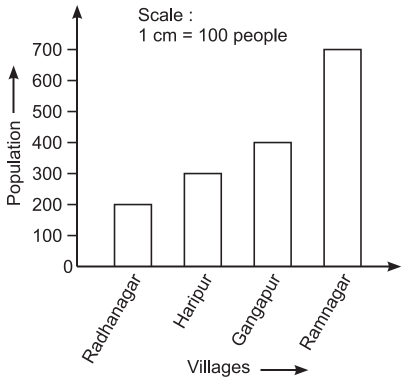
6.



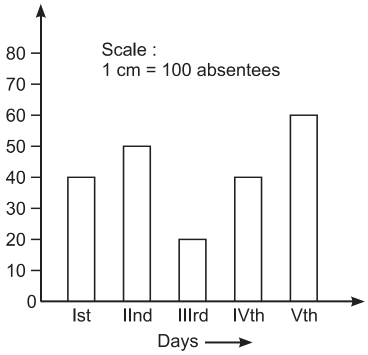
7. (a) Guava Scale : One symbol = 5 trees
(b) Mango
(c) 4 × 5 = 20
(d) 4 × 5 = 20
(e) 6 × 5 = 30

8. (a) I Scale : One symbol = 5 students
(b) V
(c) 5 × 5 = 25
(d) III and IV
(e) 3 × 5 = 15
(f) 8 × 5 = 40
(g) 4 × 5 = 20

9.



10.

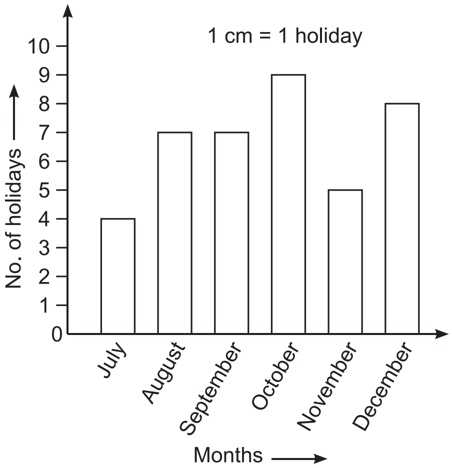


11. (a) Population of 4 cities of Rajasthan
(b) 2, (c) 4

12. (a) February
(b) Sclae : 1 cm = 2 cm of rainfall
In month of April,
$6 \times 2 = 12$ cm of rainfall
(c) May

Must Practice Exercise 9

1.



(a) October (b) July (c) August

2. Scale :
◎ = 10 Papad
| = 1 Papad

(a) Sunday
Number of papad production
$= (8 \times 10) + (1 \times 3)$
$= 80 + 3$
$= 83$

(b) Production on Monday
$= (5 \times 10) + (1 \times 2)$
$= 50 + 2$
$= 52$

Production on Friday $= (5 \times 10) + (1 \times 3)$
$= 50 + 3$
$= 53$

More production on friday.
Difference = 53 – 52 = 1 Papad

3. ☺ = 5 students, 1 = 1 student

Days	Number of students present
Monday	☺ ☺ ☺ ☺ ☺ | | |
Tuesday	☺ ☺ ☺ ☺ ☺ | |
Wednesday	☺ ☺ ☺ ☺ ☺
Thursday	☺ ☺ ☺ ☺ ☺ |
Friday	☺ ☺ ☺ ☺ ☺ | |
Saturday	☺ ☺ ☺ ☺ | | | |

(a) Monday (b) 157 (c) Saturday

Additional Exercise

1. In tally mark representation,
| = 1
𝍸 = 5
So, 12 =
(c) 𝍸 𝍸 | |

2. ☆ = 3
☆☆☆☆☆ = $3 \times 5 = 15$
(b) 15

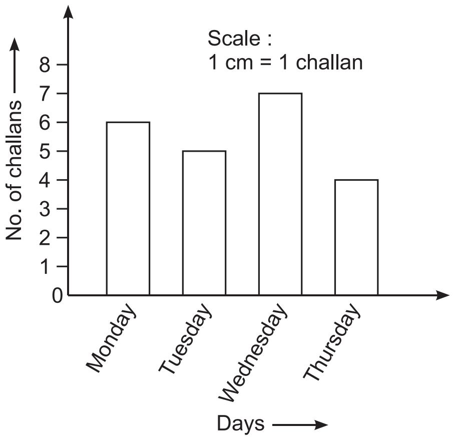
3. (c) 𝍸 | |
5 + 2 = 7

4. (b) 𝍸 𝍸 𝍸 𝍸 | |
5 + 5 + 5 + 5 + 2 = 22

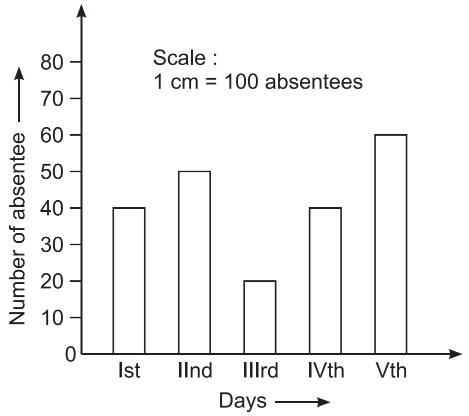
5. (b) 卌 卌 |||
5 + 5 + 3 = 13

6. (c) 卌 ||||
5 + 4 = 9

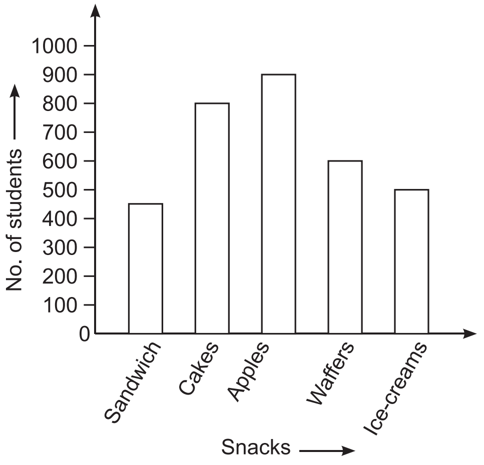
7.



8.



9.



10. Let, ○ = 5 students, | = 1 student

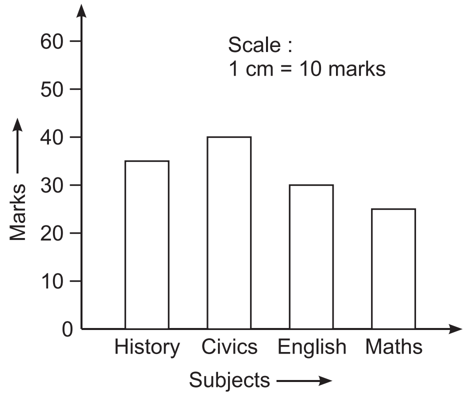
Days	**Number of absentee**
Monday	○○○○○○○○○
Tuesday	○○
Wednesday	○○○○
Thursday	○ | | | |
Friday	○○○○○

11. (a) 40 (b) 70
(c) Maths (d) Hindi

12.

Subjects	**Marks**	**Tally marks**
History	35	卌 卌 卌 卌 卌 卌 卌
Civics	40	卌 卌 卌 卌 卌 卌 卌 卌
English	30	卌 卌 卌 卌 卌 卌
Maths	25	卌 卌 卌 卌 卌

13.



Chapter 10 : Currency

Exercise 10.1

1. (a) ₹ 645.75 + ₹ 760.50 + ₹ 135.50

$$\begin{array}{lr} & ①\,①\,① \quad \\ = & \text{₹}\,6\;4\;5\,.\,7\;5 \\ & \text{₹}\,7\;6\;0\,.\,5\;0 \\ + & \text{₹}\,1\;3\;5\,.\,5\;0 \\ & \boxed{\text{₹}\,1\;5\;4\;1\,.\,7\;5} \end{array}$$

(b) ₹ 4375.50 + ₹ 8436.50 + ₹ 9647.75

①①①①
= ₹ 4 3 7 5 . 5 0
₹ 8 4 3 6 . 5 0
+ ₹ 9 6 4 7 . 7 5
$\boxed{\text{₹ } 2\,2\,4\,5\,9\,.\,7\,5}$

2. (a) ₹ 8000.50 + ₹ 6366.50 + ₹ 2322.50

①
= ₹ 8 0 0 0 . 5 0
₹ 6 3 6 6 . 5 0
+ ₹ 2 3 2 2 . 5 0
$\boxed{\text{₹ } 1\,6\,6\,8\,9\,.\,5\,0}$

(b) ₹ 9600.50, ₹ 35.50 and ₹ 205.50

① ①
= ₹ 9 6 0 0 . 5 0
₹ 3 5 . 5 0
+ ₹ 2 0 5 . 5 0
$\boxed{\text{₹ } 9\,8\,4\,1\,.\,5\,0}$

3. (a) ₹ 684.75 – ₹ 294.50

⑤
= ₹ 6 8 4 . 7 5
– ₹ 2 9 4 . 5 0
$\boxed{\text{₹ } 3\,9\,0\,.\,2\,5}$

(b) ₹ 188.00 – ₹ 88.00
= ₹ 1 8 8 . 0 0
₹ 8 8 . 0 0
$\boxed{\text{₹ } 1\,0\,0\,.\,0\,0}$

⑬⑬⑭
①⑩③③ $\cancel{4}$⑩
4. ₹ 2 1 4 4 . 5 0
– ₹ 1 9 8 4 . 7 5
$\boxed{\text{₹ } 0\,1\,5\,9\,.\,7\,5}$

⑭
① $\cancel{4}$⑩
5. ₹ 6 8 8 8 . 5 0
– ₹ 1 2 . 7 5
$\boxed{\text{₹ } 6\,8\,7\,5\,.\,7\,5}$

6. (a) (i) ₹ 355.50 × 7
₹ 355.50
× 7
$\boxed{\text{₹ } 2488.50}$

(ii) ₹ 960.75 × 8
₹ 960.75
× 8
$\boxed{\text{₹ } 3686.00}$

(iii) ₹ 66.75 × 9
₹ 66.75
× 9
$\boxed{\text{₹ } 600.75}$

(iv) ₹ 212.50 × 11
₹ 212.50
× 11
₹ 21250
212500
$\boxed{\text{₹ } 2337.50}$

(b) (i) ₹ 787.50 × 5
₹ 787.50
× 5
$\boxed{\text{₹ } 3937.50}$

(ii) ₹ 24.00 × 6
₹ 24.00
× 6
$\boxed{\text{₹ } 144.00}$

(iii) ₹ 7286.00 × 8
₹ 7286.00
× 8
$\boxed{\text{₹ } 58288.00}$

(iv) ₹ 6259.50 × 9
₹ 6259.50
× 9
$\boxed{\text{₹ } 56335.50}$

Exercise 10.2

②①
1. ₹ 6 7 5 0 ⟶ Bed
₹ 4 5 5 0 ⟶ Table
+ ₹ 9 5 0 ⟶ Chair
$\boxed{\text{₹ } 1\,2\,2\,5\,0}$ ⟶ Total

②②①
2. ₹ 3 5 . 0 0
₹ 7 5 . 5 0
₹ 2 7 5 . 0 0
₹ 5 2 . 0 0
+ ₹ 9 . 5 0
$\boxed{\text{₹ } 4\,4\,5\,.\,0\,0}$

⑦⑨ ⑨⑩
3. ₹ 8 0 . 0 0
– ₹ 7 6 . 3 5
$\boxed{\text{₹ } 0\,3\,.\,6\,5}$

⑭
① $\cancel{4}$⑨⑨⑩
4. ₹ 2 5 0 0 0 ⟶ Monthly salary
– ₹ 6 4 3 5 ⟶ Savings
$\boxed{\text{₹ } 1\,8\,5\,6\,5}$ ⟶ Money spent

5. Cost of 1 kg tomato = ₹ 15.50
Cost of 13 kg tomatoes = 13 × ₹ 15.50
= ₹ 201.50

6. Cost of 1 rice bag = ₹ 1,750
Cost of 24 such bags = 24 × ₹ 1,750
= ₹ 42,000

7. Cost of 8 kg of sweets =₹ 1,200
Cost of 1 kg of sweet = ₹ 1200 ÷ 8
= ₹ 150

8. Money deposited in 1 year = ₹ 30,600
Monthly contribution
₹ 30,600 ÷ 12 = ₹ 2,550

Exercise 10.3

1. 12 kg rice @ ₹ 85 per kg
2 kg sugar @ ₹ 12.44 per kg
1 kg flour @ ₹ 28.50 per kg

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Rice	12 kg	₹ 85	1020	00
2.	Sugar	2 kg	₹ 44	88	00
3.	Flour	1 kg	₹ 28.50	28	50
				1136	50

For Sudha Provision
(Prop.)

2. 10 oranges @ ₹ 9.30 each
2 dozen banana @ ₹ 25 per dozen
5 kg mangoes @ ₹ 53 per kg

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Oranges	10 pcs	₹ 9.30	93	00
2.	Banana	2 dozen	₹ 25	50	00
3.	Mangoes	5 kg	₹ 53	265	
				408	00

For Manglam Fruit Shop
(Prop.)

3. 6 toilet soaps @ ₹ 116 per dozen
1 toothpaste @ ₹ 38.50 each
6 detergent soaps @ ₹ 8 each
2 packs cleaning powder @ ₹ 21 each

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Toilet Soap	6 Pcs.	₹ 116 per doz	696	00
2.	Tooth paste	1 Pcs.	₹ 38.50	38	50
3.	Detergent soap	6 Pcs.	₹ 8	48	00
4.	Cleaning powder	2 Packs	₹ 21	42	00
			Total	824	50

For Chandran Mart
(Prop.)

4. 60 packets of biscuits @ ₹ 5 each
60 packets of popcorn @ ₹ 8.20 each
15 packets of fruit cake @ ₹ 25 per packet

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Biscuits	60 pkt	₹ 5	300	00
2.	Popcorn	60 pkt	₹ 8.20	492	00
3.	Fruit cake	15 pkt	₹ 25	375	
			Total	1167	00

For Kapoor Bakers
(Prop.)

5. (a) Name, address (b) Amount
(c) Date (d) Name, number
(e) Items (f) Rate
(g) Quantity (h) Total
(i) Signature

6. **M.L. Paper Mart**
Jhunjhunu (Rajasthan)
To, ____________ Date : 15-2-19

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Biscuits	60 pkt	₹ 5	300	00
2.	Popcorn	60 pkt	₹ 8.20	492	00
3.	Fruit cake	15 pkt	₹ 25	375	
			Total	1167	00

For Kapoor Bakers
(Prop.)

7. (a) 2
(b) Venus matching store, Pali (Rajasthan)
(c) 18 – 2 – 19 (d) ₹ 12 (e) ₹ 1944

8. 6 drawing sheets @ ₹ 5 each
1 box water colour @ ₹ 40
6 brushes @ ₹ 8 each
10 HB pencils @ ₹ 6.50 each

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Drawing sheet	6 Pcs.	₹ 5	30	00
2.	Water color	1 Box	₹ 40	40	00
3.	Brushes	6 Pcs.	₹ 8	48	00
4.	Pencil	10 Pcs.	₹ 6.50	65	00
			Total	183	00

For Nishant Arts and Crafts
(Prop.)

Must Practice Exercise 10

1.
① ①
₹ 2 0 5 8 . 2 5 → Wheat
+ ₹ 1 1 5 4 . 5 0 → Maize
$\boxed{₹\ 3\ 2\ 1\ 2\ .\ 7\ 5}$ → Total

2.

$$\begin{array}{r l} \overset{①}{} \qquad \overset{①}{} & \\ ₹\,5052.25 & \longrightarrow \text{Cloth} \\ +\ ₹\,2070.25 & \longrightarrow \text{Gracery} \\ \hline \boxed{₹\,7122.50} & \longrightarrow \text{Total spend} \end{array}$$

$$\begin{array}{r l} ₹\,8575.75 & \longrightarrow \text{Total money} \\ -\ ₹\,7122.50 & \longrightarrow \text{Total spend} \\ \hline \boxed{₹\,1453.25} & \longrightarrow \text{Amount remaining} \end{array}$$

3. (a) ₹ 525.25 × 13

$$\begin{array}{r} ₹\,525.25 \\ \times\,13 \\ \hline 157575 \\ 525250 \\ \boxed{₹\,6828.25} \end{array}$$

(b) ₹ 507.75 × 16

$$\begin{array}{r} ₹\,507.75 \\ \times\,16 \\ \hline ₹\,304650 \\ 507750 \\ \boxed{₹\,8124.00} \end{array}$$

(c) ₹ 899.50 × 17

$$\begin{array}{r} ₹\,899.50 \\ \times\,17 \\ \hline ₹\,6296.50 \\ 899500 \\ \boxed{₹\,15291.50} \end{array}$$

(d) ₹ 726.72 × 19

$$\begin{array}{r} ₹\,726.72 \\ \times\,19 \\ \hline ₹\,654048 \\ 726720 \\ \boxed{₹\,13807.68} \end{array}$$

4. Total amount = ₹ 35,755.20

Number of women = 13

Amount given to each women

= ₹ 35,755.20 ÷ 13

= ₹ 2,750.40

5. Price of ૧ kg rice = ₹ ૪૫.૫૦

Price of ૪ kg rice = ₹ ૪૫.૫૦ × ૫

= ₹ ૨૨૭.૫૦

Price of ૧ kg sugar = ₹ ૨૮.૬૦

Price of ૩ kg sugar = ₹ ૨૮.૬૦ × ૩

= ₹ ૮૫.૮૦

Balance amount = ₹ ૨૪૫.૬૦

Total amount carried by him

= ₹ ૨૨૭.૫૦ + ₹ ૮૫.૮૦ + ₹ ૨૪૫.૬૦

= ₹ ૫૫૮.૯૦

6. Cost of ૧ shirt = ₹ ૩૨૬.૫૦

Cost of ૧ trouser = ₹ ૭૮૦.૬૦

Cost of ૩ shirts = ૩ × ₹ ૩૨૬.૫૦

= ₹ ૯૭૯.૫૦

Cost of ૫ trousers = ૪ × ₹ ૭૮૦.૬૦

= ₹ ૩૯૦૩

Total cost = ₹ ૯૭૯.૫૦ + ₹ ૩૯૦૩

= ₹ ૪૮૮૨.૫૦

7. Amount carrying = ₹ 35,916

Price of Apple = ₹ 12,763.30

Price of Grapes = ₹ 13,243.30

Price of Bananas = ₹ 947

Total spend on fruits

= ₹ 12,763.30 + ₹ 13,243.30 + ₹ 947

= ₹ 26,953.60

Amount remaining = ₹ 35,916 – ₹ 26,953.60

= ₹ 8,962.40

8. Total amount Meera had = ₹ 20,974.80

Amount invested = ₹ 10,544.40

Balance amount = ₹ 20,974.80 – ₹ 10,544.40

= ₹ 10,430.40

Now, amount recieved by both children

= ₹ 10,430.40 ÷ 2

= ₹ 5,215.20

9. Cost of 1 cycle = ₹ 1,075.50

Cost of 52 such cycles = ₹ 1,075.50 × 52

= ₹ 55,926

10. ₹ 25,081.75 + ₹ 70,860.60 + ₹ 9,876.42

$$= \begin{array}{r} ₹\ \ 25081.75 \\ ₹\ \ 70860.60 \\ +\,₹\ \ \ \ 9876.42 \\ \hline \boxed{₹\ 105818.77} \end{array}$$

11. 8 litre milk @ ₹ 40.25

3 kg curd @ ₹ 60.00

2 kg ghee @ ₹ 450.00

5 litre butter milk @ ₹ 20.75

S.No.	Item name	Quantity	Rate	Price
1.	Milk	8 liter	Rs. 40.25	Rs. 322.00
2.	Curd	3 liter	Rs. 60.00	Rs. 180.00
3.	Ghee	2 kg	Rs. 450	Rs. 900.00
4.	Butter Milk	5 liter	Rs. 20.75	Rs. 103.75
	Fifteen hundred five rupees and seventy five paise only Total			Rs. 1505.75

1. Errors and Omissions Excepted.
2. Goods once sold will not be taken back or exhanged.

Signature

12. 5 kg maize seeds @ ₹ 37.25

45 kg urea @ ₹ 35

1 litre insecticide @ ₹ 235

Date : 30/10/18

Bill No : 108

S.No.	Item name	Quantity	Rate	Price
1.	Maize Seeds	५ kg	Rs. ३७.५०	Rs. १८७.५०
2.	Urea	३५ kg	Rs. ४५.००	Rs. १५७५.००
3.	Insecticide	१ liter	Rs. २३५.००	Rs. २३५.००
	Ninteen hundred ninety seven rupees and fifty paise only		Total	Rs. १९९७.५०
1. Errors and Omissions Excepted. 2. Goods once sold will not be taken back or exchanged.				Signature

13. **Bill/Cash Memo**

Bill No. : 568 Mamta general Store Date 25.1018

Mahaveer nagar. Karolyn

Name : **Manu, Karavli**

S.No.	Item name	Quantity	Rate	Price
1.	Candle	3 packet	Rs. 20.20	Rs. 60.60
2.	Soap	5 packet	Rs. 40.15	Rs. 200.75
3.	Sugar	4 kg	Rs. 33.00	Rs. 132.00
4.	Gram flour	2 kg	Rs. 55.50	Rs. 111.00
	Five hundred four rupees and thirty five paise only		Total	Rs. 504.35
1. Errors and Omissions Excepted. 2. Goods once sold will not be taken back or exchanged.				Signature

14. **Bill/Cash Memo**

Bill No. : 547 Manoj Provision Store Date 22.1018

Kanvas

Name : **Mrs. Meera**

S.No.	Item name	Quantity	Rate	Price
1.	Washing powder	2 Kg	Rs. 77.25	Rs. 154.50
2.	Namkeen	5 Kg	Rs. 140.00	Rs. 700.00
3.	Salt	5 Kg	Rs. 25.20	Rs. 126.00
4.	Oil	2 liter	Rs. 75.40	Rs. 150.80
	Eleven hundred thirty one rupees and thirty paise only		Total	Rs. 1131.30
1. Errors and Omissions Excepted. 2. Goods once sold will not be taken back or exchanged.				Signature

Additional Exercise

1. 10 kg flour @ ₹ 45 per kg
2 kg rice @ ₹ 70 per kg
5 kg maize @ ₹ 24 per kg
8 kg wheat @ ₹ 32 per kg
3 kg salt @ ₹ 12 per kg
4 kg sugar @ ₹ 40 per kg

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Flour	10 kg	₹ 45	450	00
2.	Rice	2 kg	₹ 70	140	00
3.	Maize	5 kg	₹ 24	120	00
4.	Wheat	8 kg	₹ 32	256	00
5.	Salt	3 kg	₹ 15	45	00
6.	Sugar	4 kg	₹ 40	160	00
			Total	1171	00
		For Raj Kirana Sote (Prop.)			

2. 12 kg washing powder @ ₹ 77.25
13 kg namkeen @ ₹ 70.20
25 kg salt @ ₹ 25.20
20 litre oil @ ₹ 135.40

S.No.	Name of items	Quantity	Rate	Amount	
				₹	P
1.	Washing Powder	12 kg	₹ 77.25	927	00
2.	Namkeen	13 kg	₹ 75.20	977	60
3.	Salt	25 kg	₹ 25.20	630	00
4.	Oil	20 liter	₹ 135.40	2708	00
			Total	5242	60
			For Raj Provision Store (Prop.)		

Fun-Zone

1.

S.No.	Items	Quantity	Rate	Amount ₹ P
1.	Kedney-bean	2 kg	₹ 30	₹ 60
2.	Worse-bean	1 kg	₹ 20	₹ 20
3.	Green-Grams	2 kg	₹ 17	₹ 34
4.	Cumin Seed	1 kg	₹ 100	₹ 100
5.	Soap	3 bars.	₹ 6	₹ 18
6.	Butter (500 gm)	2 packet	₹ 32	₹ 64
Two hundred ninety six			Total	₹ 296
1. Errors and Omissions accepted. 2. Goods once sold not be taken back.				Sign. __________

2.

S.No.	Items	Quantity	Rate	Amount ₹ P
1.	Washing powder	2 kg	₹ 30	₹ 60
2.	Butter milk	21kg	₹ 32.50	₹ 65
3.	Soap bars	3 bars	₹ 8	₹ 24
4.	Flour	5 kg	₹ 30	₹ 150
5.	Chilli souce	2 kg	₹ 110	₹ 220
Five hundred and nineteen only			Total	₹ 519
1. Errors and Omissions accepted. 2. Goods once sold not be taken back.				Sign. __________

Chapter 11 : Time

Exercise 11.1

1. (a) 5 min

$= 5 \times 60$ sec

$= 300$ sec

(b) 3 min 15 sec

$= (3 \times 60)$ sec $+ 15$ sec

$= 195$ sec

(c) 15 min 35 sec

$= (15 \times 60)$ sec $+ 35$ sec

$= 935$ sec

(d) 1 hr 20 min

$= (60 \times 60)$ sec $+ (20 \times 60)$ sec

$= 4800$ sec

(e) 2 hr 15 min 35 sec
$= (2 \times 60 \times 60)$ sec $+ (15 \times 60)$ sec + 35 sec
$= (7200 + 900 + 35)$ sec
= 8135 sec

2. (a) 230 sec
= 3 min 50 sec
(b) 900 sec
= 15 min
(c) 3600 sec
= 60 min
(d) 4200 sec
= 70 min
(e) 5400 sec
= 90 min

3. (a) 6 min 25 sec + 8 min 45 sec
= 15 min 10 sec
(b) 15 min 35 sec + 25 min 40 sec
= 41 min 15 sec
(c) 2 hr 50 min + 4 hr 30 min
= 7 hr 20 min
(d) 6 hr 25 min + 3 hr 55 min
= 10 hr 20 min

4. (a) 8 min 35 sec – 5 min 15 sec
= 3 min 20 sec
(b) 12 min 10 sec – 7 min 20 sec
= 4 min 50 sec
(c) 4 hr 30 min –2 hr 15 min
= 2 hr 15 min
(d) 6 hr – 4 hr 10 min
= 1 hr 50 min

5. 9 : 15 a.m. ⟶ 4 : 30 p.m.
on 24 hour clock,
09 : 15 ⟶ 16 : 30

$$\begin{array}{rrcrr} \textcircled{0} & \textcircled{16} & & \textcircled{2} & \textcircled{10} \\ 1 & 6 & : & 3 & 0 \\ -0 & 9 & : & 1 & 5 \\ \hline \end{array}$$
$$\boxed{0\ 7\ :\ 1\ 5}$$

Picnic last for 07 : 15 hours

6. 11 : 15 a.m. ⟶ 7 : 45 a.m.
= 3 :30 hours

7. Brajesh covers distance in = 1 hour 12 minutes
Suresh covers distance in = 2 hours 8 minutes
Difference of time = 2 hr 8 min – 1 hr 12 min
= 56 min

8. Ajay runs = 8 hours 7 minutes
Rakesh runs = 8 hours 25 minutes
Difference = 8 hr 25 min – 8 hr 7 min
= 18 min
Rakesh runs more by 18 minutes.

9. Time taken by first bus
= 5 hours 30 minutes
Time taken by second bus
= 4 hours 45 minutes
Time taken by both the buses
= 5 hr 30 min + 4 hr 45 min
= 10 hr 15 min

10. 2 hr 45 min + 3 hr 16 min
= 6 hr 01 min

Must Practice Exercise 11
Text Book Exercise

1. (a) $1\frac{1}{4}$ hours
$= \left[(1 \times 60) + \left(\frac{1}{4} \times 60\right)\right]$ minutes
$= (60 + 15)$ minutes
= 75 minutes

(b) $2\frac{1}{2}$ hours
$= \left[(2 \times 60) + \left(\frac{1}{2} \times 60\right)\right]$ minutes
$= (120 + 30)$ minutes
= 150 minutes

(c) $5\frac{3}{4}$ hours
$= \left[(5 \times 60) + \left(\frac{3}{4} \times 60\right)\right]$ minutes
$= (300 + 45)$ minutes
= 345 minutes

(d) $3\frac{1}{5}$ hours
$= \left[(3 \times 60) + \left(\frac{1}{5} \times 60\right)\right]$ minutes
$= (180 + 12)$ minutes
= 192 minutes

Must Practice Exercise 11
Text Book Exercise

2. (a) 20 minutes
$= (20 \times 60)$ seconds
= 1,200 seconds

(b) $6\frac{1}{2}$ minutes
$= \left((6 \times 60) + \left(\frac{1}{2} \times 60\right)\right]$ seconds
= 390 seconds

(c) $15\frac{1}{4}$ minutes

$= \left[(15 \times 60) + \left(\frac{1}{4} \times 60\right)\right]$ seconds

$= 915$ seconds

(d) 4 hours

$= (4 \times 60 \times 60)$ seconds

$= 14{,}400$ seconds

(e) $2\frac{3}{4}$ hours

$= \left[(2 \times 60 \times 60) + \left(\frac{3}{4} \times 60 \times 60)\right]$ seconds

$= 9{,}900$ seconds

3. (a) $10\frac{3}{5}$

$= \left[(10 \times 60) + \left(\frac{3}{5} \times 60\right)\right]$ minutes

$= 636$ minutes

(b) $2\frac{1}{4}$ hours

$= \left[(2 \times 60 \times 60) + \left(\frac{1}{4} \times 60 \times 60\right)\right]$ seconds

$= 8{,}100$ seconds

(c) $\frac{1}{5}$ minutes

$= \left(\frac{1}{5} \times 60\right)$ seconds

$= 12$ seconds

(d) $1\frac{2}{3}$ minutes

$= \left[(1 \times 60) + \left(\frac{2}{3} \times 60)\right]$ seconds

$= 100$ seconds

4. (a) 2 hr 32 min + 4 hr 10 min

= 6 hr 52 min

(b) 10 min 50 sec + 8 min 20 sec

= 19 min 10 sec

(c) 4 hr 25 min 45 sec + 7 hr 12 min 5 sec

= 11 hr 37 min 50 sec

(d) 9 hr 36 min 2 sec + 5 hr 40 min 52 sec

= 10 hr 16 min 54 sec

5. (a) 12 hr 18 min – 9 hr 32 min

= 2 hr 46 min

(b) 29 min 39 sec – 25 min 49 sec

= 3 min 50 sec

(c) 14 hr 8 min – 7 hr 35 min

= 6 hr 33 min

(d) 20 hr 40 min – 10 hr 50 min

= 9 hr 50 min

6. 5 hr 30 min + 3 hr 45 min

= 9 hr 15 min

7. Extra time taken by Firoj as compare to Rakesh

= 3 hr 8 min – 2 hr 12 min

= 56 min

8. (a) False (1 minute = 60 seconds)

(b) True (1 hr = 60 × 60 = 3600 seconds)

(c) True

(d) False

$\left(\frac{1}{2} \text{ hr} = \frac{1}{2} \times 60 \text{ minutes} = 30 \text{ minutes}\right)$

Additional Exercise

1. (a) (iii) 24 hours

(b) (ii) 11 minutes

(8 hr 10 min – 7 hr 59 min = 11 min)

(c) (ii) 1 hour 45 minutes

(9 hr 15 min – 7 hr 30 min = 1 hr 45 min)

(d) (iii) 7200 (2 hr = 2 × 60 × 60 seconds

= 7200 secnds

2. (a) 1 hour

$= (1 \times 60 \times 60)$ seconds

$= 3{,}600$ seconds

(b) 24 hours

$= (24 \times 60 \times 60)$ seconds

$= 86{,}400$ seconds

(c) 6 hours

$= (6 \times 60)$ minutes

$= 360$ minutes

(d) 24 hours

(24×60) minutes

$= 1{,}440$ minutes

3. (a) False (b) True (c) True
(d) False (e) True (f) True
(g) True (h) False (i) False
(j) True (k) False (l) True
(m) False (n) False (o) False

Chapter 12 : Weight

Exercise 12.1

1. (a) 8 kg

$= (8 \times 1000)$ g

$= 8000$ g

(b) 3 kg 200 g
= (3 × 1000) g + 200 g
= 3200 g
(c) 5 kg 70 g
= (5 × 1000) g + 70 g
= 5070 g
(d) 10 kg 5 g
= (10 × 1000) g + 5 g
= 10005 g

2. (a) 6550 g
= (6550 ÷ 1000) kg
= 6 kg 550 g
(b) 10625 g
= (10625 ÷ 1000) kg
= 10 kg 625 g
(c) 10090 g
= (10090 ÷ 1000) kg
= 10 kg 90 g
(d) 12005 g
= (12005 ÷ 1000) kg
= 12 kg 5 g

3. (a) 76 kg 450 g + 8 kg 300 g
= 84 kg 750 g
(b) 6 kg 900 g + 65 kg 50 g
= 71 kg 950 g
(c) 50 kg 600 g + 45 kg 750 g + 6 kg 300 g
= 120 kg 650 g
(d) 250 kg 850 g + 125 kg 150 g + 35 kg 700 g
= 411 kg 700 g

4. (a) 75 kg 500 g – 55 kg 100 g
= 20 kg 400 g
(b) 640 kg 400 g – 275 kg 700 g
= 364 kg 700 g
(c) 15 kg 650 g – 10 kg 500 g
= 5 kg 150 g
(d) 84 kg 750 g – 64 kg 800 g
= 19 kg 950 g

5. 33 kg 300 g + 3 kg 400 g + 32 kg 200 g
= 68 kg 900 g

6. 75 kg 750 g + 25 kg 500 g
= 101 kg 250 g

7. 2 kg 500 g + 1 kg 750 g + 3 kg 250 g
= 7 kg 500 g

8. 45.85 kg – 20.96 kg
= 24.89 kg

9. Remaining dal = 35 kg – 28 kg 600 g
= 6 kg 400 g

10. 100 kg – 75 kg 500 g
= 24 kg 500 g

Must Practice Exercise 12

1. (a) 200 g
= (200 ÷ 1000) kg
= .200 kg
(b) 400 g
= (400 ÷ 1000) kg
= .400 kg
(c) 1250 g
= (1250 ÷ 1000) kg
= 1.250 kg

2. $1\frac{1}{4}$ kg

$$= \left[(1 \times 1000) + \left(\frac{1}{4} \times 1000\right)\right] \text{g}$$

= 1250 g

3. $1\frac{3}{4}$ kg

$$= \left[(1 \times 1000) + \left(\frac{3}{4} \times 1000\right)\right] \text{g}$$

= 1750 g

4. 1 kg 400 g + 750 g + 2 kg 600 g
= 4 kg 750 g

5. 10 kg – 8 kg 750 g
= 1 kg 250 g

6. 5 kg 470 g – 3 kg 690 g
= 1 kg 780 g

7. Mass of packet = 250 g
Mass of spices = 6 kg
Number of formed packet = 6000 ÷ 250
= 24

8. Rice requirement per child = 100 g
Wheat requirement per child = 150 g
Rice required for 60 children = (100 × 60) g
= 6000 g
= 6 kg
Wheat required for 60 children = (150 × 60) g
= 9000 g
= 9 kg

9. 2 kg + 4 kg + 3 kg 700 g + 2 kg 900 g
= 12 kg 600 g

10. 2 kg 500 g + 5 kg 200 g + 4 kg 700 g + 10 kg
= 22 kg 400 g

11. (a) $3\frac{1}{2}$ kg

$= \left[(3 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right]$ gm

$= 3500$ gm

(b) $3\frac{2}{5}$ kg

$= \left[(3 \times 1000) + \left(\frac{2}{5} \times 1000\right)\right]$ gm

$= 3{,}400$ gram

(c) $4\frac{3}{4}$ kg

$= \left[(4 \times 1000) + \left(\frac{3}{4} \times 1000\right)\right]$ gm

$= 4{,}750$ gm

(d) $2\frac{1}{5}$ kg

$= \left[(2 \times 1000) + \left(\frac{1}{5} \times 1000\right)\right]$ gm

$= 2500$ gm

12. (a) 1500 gm

$= (1500 \div 1000)$ kg

$= 1.5$ kg

(b) 2250 gm

$= (2250 \div 1000)$ kg

$= 2.25$ kg

(c) 100 gm

$= (100 \div 1000)$ kg

$= 0.1$ kg

(d) 4750 gm

$= (4750 \div 1000)$ kg

$= 4.75$ kg

13. (a) False (1 kg = 1000 gm)

(b) True (1 kg = 1000 gm)

(c) True (1000 g ÷ 4 = 250 g)

(d) False (Density difference)

Additional Exercise

1. (a) (ii) $\frac{1}{4}$ kg

$250 \text{ g} = \frac{1}{4} \times 1000 \text{ g} = \frac{1}{4} \times 1 \text{ kg}$

(b) (i) $\frac{1}{2}$ kg

$500 \text{ g} = \frac{1}{2} \times 1000 \text{ g} = \frac{1}{2} \times 1 \text{ kg}$

(c) (ii) 750 g

$\frac{3}{4} \text{ kg} = \frac{3}{4} \times 1000 \text{ g} = 750 \text{ g}$

(d) (iii) 1500 g

$1\frac{1}{2} \text{ kg} = (1 \times 1000) \text{ g} + \left(\frac{1}{2} \times 1000\right) \text{ g}$

$= 1500$ g

(e) (i) 1750 g

$1\frac{3}{4} \text{ kg} = (1 \times 1000) \text{ g} + \left(\frac{3}{4} \times 1000\right) \text{ g}$

$= 1750$ g

2. (a) 1 kg

$= 1 \times 1000$ g

$= 1000$ g

(b) 2500 g

$= (2500 \div 1000)$ kg

$= 2.5$ kg

(c) 1500 g

$= (1500 \div 1000)$ kg

$= 1.5$ kg

(d) $2\frac{1}{5}$ kg

$= \left[(2 \times 1000) + \left(\frac{1}{5} \times 1000\right)\right]$ g

$= 2200$ g

(e) 3100 g

$= (3100 \div 1000)$ kg

$= 3.1$ kg

(f) 7 kg 450 g

$= (7 \times 1000) \text{ g} + 450 \text{ g}$

$= 7450$ g

3. (a) False (10 kg 800 g = 10800 g)

(b) True $\left(1 \text{ g} = \frac{1}{1000} \text{ kg}\right)$

(c) False (0.070 kg = 70 g)

(d) True (1000 g = 1 kg)

(e) True $\left(0.5 \text{ kg} = 500 \text{ g} = \frac{1}{2} \text{ kg}\right)$

Chapter 13 : Measurement of Length

Exercise 13.1

1. (a) 6 cm

$= (6 \times 10)$ mm

$= 60$ mm

(b) 9 cm

$= (9 \times 10)$ mm

$= 90$ mm

(c) 15 cm

$= (15 \times 10)$ mm

$= 150$ mm

(d) 35 cm

$= (35 \times 10)$ mm

$= 350$ mm

2. (a) 15 mm (b) 28 mm
$= (15 \div 10)$ cm $= (28 \div 10)$ cm
$= 1.5$ cm $= 2.8$ cm
(c) 14 mm (d) 18 mm
$= (14 \div 10)$ cm $= (18 \div 10)$ cm
$= 1.4$ cm $= 1.8$ cm

3. (a) 7 m (b) 9 m
$= (7 \times 1000)$ mm $= (9 \times 1000)$ mm
$= 7000$ mm $= 9000$ mm
(c) 19 m (d) 28 m
$= (19 \times 1000)$ mm $= (28 \times 1000)$ mm
$= 19000$ mm $= 28000$ mm

4. (a) 1120 mm (b) 1528 mm
$= (1120 \div 1000)$ m $= (1528 \div 1000)$ m
$= 1.120$ m $= 1.528$ m
(c) 2650 mm (d) 2875 mm
$= (2650 \div 1000)$ m $= (8975 \div 1000)$ m
$= 2.650$ m $= 8.975$ m

5. (a) 5 km (b) 45 km
$= (5 \times 1000)$ m $= (45 \times 1000)$ m
$= 5{,}000$ m $= 45{,}000$ m
(c) 10 km 50 m
$= (10 \times 1000)$ m + 50 m
$= 10{,}050$ m
(d) 21 km 500 m
$= (21 \times 1000)$ m + 500 m
$= 21{,}500$ m

6. (a) 5850 m
$= (5850 \div 1000)$ km
$= 5.850$ km
(b) 8500 m
$= (8500 \div 1000)$ km
$= 8.5$ km
(c) 6585 m
$= (6585 \div 1000)$ km
$= 6.585$ km
(d) 8000 m
$= (8000 \div 1000)$ km
$= 8$ km

7. (a) 12 km
$= (12 \times 1000)$ m
$= 12{,}000$ m
(b) $10\frac{1}{2}$ km
$$= \left[(10 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right] \text{m}$$
$= 10{,}500$ m
(c) $25\frac{1}{4}$ m
$$= \left[(25 \times 100) + \left(\frac{1}{4} \times 100\right)\right] \text{centimeter}$$
$= 2525$ centimeter
(d) $4\frac{1}{5}$ centimetres
$$= \left[(4 \times 10) \times \left(\frac{1}{5} \times 10\right)\right] \text{millimetre}$$
$= 42$ millimetre

8. (a) 120 centimetres
$= (120 \div 100)$ m
$= 1.2$ m
(b) 2250 metres
$= (2250 \div 1000)$ km
$= 2.25$ km
(c) 50 millimetres
$= (50 \div 10)$ centimeter
$= 5$ centimetre
(d) 9500 metres
$= (9500 \div 1000)$ km
$= 9.5$ km
(e) 150 m
$= (150 \times 100)$ centimetre
$= 15{,}000$ centimetre
(f) 175 millimetres
$= (175 \div 10)$ centimetre
$= 17.5$ centimetre

9. (a) 20 m 35 cm + 30 m 32 cm
= 50 m 67 cm
(b) 16 m 35 cm + 25 m 35 cm
= 41 m 70 cm
(c) 4 km 600 m + 5 km 500 m
= 10 km 100 m
(d) 7 km 800 m + 3 km 400 m
11 km 200 m

10. (a) 15 m 25 cm – 10 m 85 cm
= 4 m 40 cm
(b) 28 m 30 cm – 25 m 55 cm
= 2 m 75 cm
(c) 50 km 300 m – 20 km 600 cm
= 30 km 294 m
(d) 75 km 300 m – 38 km 750 m
= 36 km 550 m

11. 6 m 50 cm + 5 m 50 cm
= 12 m

12. (200 m 50 cm) × 2
= 401 m

13. 25 km 500 m + 30 km 400 cm
= 55 km 900 m

14. 27 m 40 cm – 20 m 30 cm = 7 m 10 cm

15. 1 m 60 cm – 1 m 40 cm = 20 cm

16. 30 km 500 m – 7 km 400 m
= 23 km 100 m

Must Practice Exercise 13
Text Book exercise

1. (a) 12 km
= (12 × 1000) m
= 12,000 m

(b) $10\frac{1}{2}$ km

$$= \left[(10 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right] \text{m}$$

= 10,500 m

(c) $25\frac{1}{4}$ m

$$= \left(25 \times 100) + \left(\frac{1}{4} \times 100\right)\right] \text{cm}$$

= 2,525 cm

(d) $15\frac{3}{4}$ m

$$= \left[(15 \times 100) + \left(\frac{3}{4} \times 100\right)\right] \text{cm}$$

= 1,575 cm

(e) $4\frac{1}{5}$ cm

$$= \left[(4 \times 10) + \left(\frac{1}{5} \times 10\right)\right] \text{mm}$$

= 42 mm

(f) $1\frac{4}{5}$ cm

$$= \left[1 \times 10 + \frac{4}{5} \times 10\right] \text{mm} = 18 \text{ mm}$$

2. (a) 120 centimetre
= (120 ÷ 100) m = 1.2 m

(b) 2250 m
= (2250 ÷ 1000) km = 2.25 km

(c) 50 millimetre
= (50 ÷ 10) centimetre
= 5 centimetre

(d) 9500 metre
= (9500 ÷ 1000) kilometre
= 9.5 km

(e) 150 centimetre
= (150 ÷ 100) metre
= 1.5 metre

(f) 175 millimetre
= (175 ÷ 10) centimetre
= 17.5 centimetre

3. Distance of school from Kavita's house
= 7 kilometre 300 metre
Total distance covered = 7 km 300 m × 2
= 14 km 600 m

4. 46 kilometre – 32 kilomete 600 metre
= 13 kilometre 400 metre

Additional Exercise

1. (a) (ii) 1 centimetre
= (1 × 10) mm
= 10 mm

(b) (ii) 1 km
= (1 × 1000) m
= 1000 m

(c) 1500 m
= (1500 ÷ 1000) km
= 1.5 km

(d) $2\frac{1}{2}$ km

$$= \left[(2 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right] \text{m}$$

= 2500 m

2. (a) 15 kilimetre
= (15 × 1000) metre
= 15000 m

(b) 100 centimetre
= (100 ÷ 100) m
= 1 m

(c) 5 kilometre
= (5 × 1000) m
= 5000 m

(d) $4\frac{1}{2}$ centimetre

$$= \left[(4 \times 10) + \left(\frac{1}{2} \times 10\right)\right] \text{millimeter}$$

= 45 millimetre

(e) 25 kilometre
= (25 × 1000) m
= 25,000 m

(f) 850 centimetre
= (850 ÷ 100) m
= 8.5 m

(g) 12 centimetre

$= (12 \times 10)$ millimetre

$= 120$ millimetre

(h) 2250 metre

$= (2250 \div 1000)$ kilometre

$= 2.25$ kilometre

(i) 12 kilometre

$= (12 \times 1000 \times 100)$ centimetre

$= 12{,}00{,}000$ centimetre

(j) $2\frac{1}{2}$ kilometre

$= \left[(2 \times 1000 \times 100) + \left(\frac{1}{2} \times 1000 \times 100\right)\right]$ cm

$= 2{,}50{,}000$ centimetre

3. (a) True (7.5 km = (7.5 × 1000) m = 7500 m)

(b) False (1 cm = 10 mm)

(c) True (10 millimetre = 1 centimetre)

(d) False $\left(1 \text{ mm} = \frac{1}{10} \text{ cm}\right)$

(e) False [100 m = (100 × 100) centimetre
= 10000 centimeter]

4. 3 m 400 cm + 1 m 750 cm
= 5 m 150 m

5. 2 km 750 cm + 1 km 150 m
= 3 km 157 m 50 cm

6. 1 m 50 cm – 1 m 350 mm
= 150 mm or 15 cm

7. 3 m 50 cm + 1 m 50 mm
= 4 m 55 cm

8. 15 m – 4 mm 750 cm
= 15 m – 11 m 50 cm
= 3 m 50 cm

Chapter 14 : Perimeter and Area

Exercise 14.1

1. (a) $(10 + 10 + 10)$ cm
$= 30$ cm

(b) $(5 + 5 + 5 + 5)$ cm
$= 20$ cm

(c) $(9 + 4 + 9 + 4)$ cm
$= 26$ cm

(d) $(21 + 13 + 21 + 13)$ cm
$= 68$ cm

(e) $(5 + 2 + 8 + 3 + 4)$ cm
$= 22$ cm

(f) $(1 + 4 + 2 + 5 + 6)$ cm
$= 18$ cm

(g) $(6 + 0.5 + 4 + 2 + 4 + 0.5 + 6 + 3)$ cm
$= 26$ cm

(h) $(13 + 2 + 12 + 12 + 13 + 2)$ cm
$= 54$ cm

(i) $(2 + 2 + 2 + 2 + 2 + 2 + 2 + 2)$ cm
$= 16$ cm

2. (a) $[(9 \times 2) + 2 \times (3 \times 2)]$ sq. cm
$= [18 + 12]$ sq. cm
$= 30$ sq. cm

(b) $[(7 \times 1) + (3 \times 1) + (2 \times 1)]$ sq. cm
$= [7 + 3 + 2]$ sq. cm
$= 12$ sq. cm

(c) $[(5 \times 1) + (2 \times 1) + (3 \times 1)]$ sq. cm
$= [5 + 2 + 3]$ sq. cm
$= 10$ sq. cm

(d) $[(5 \times 1) + (3 \times 1) + (2 \times 1) + (3 \times 1)]$ sq. cm
$= [5 + 3 + 2 + 3]$ sq. cm
$= 13$ sq. cm

(e) (1.5×5.5) sq. cm
$= 8.25$ sq. cm

(f) (60×60) sq. m
$= 3{,}600$ sq. m

(g) $\left[\left(\frac{1}{2} \times 8 \times 6\right) \times 2\right]$ sq. cm
$= 48$ sq. cm

(h) $\left(\frac{1}{2} \times 12 \times 4\right)$ sq. m
$= 24$ sq. m

(i) Number of full squares = 17
Number of more than half squares = 1
Number of half square = 4
Total Area $= \left[11 + 1 + \left(\frac{1}{2} \times 4\right)\right]$ sq. cm
$= 14$ sq. cm

(j) Number full squares = 23
Number of half squares = 6
Total Area $= \left[23 + \left(\frac{1}{2} \times 6\right)\right]$ sq. cm
$= 26$ sq. cm

(k) Number of full squares = 15
Number of more than half squares = 6
Total Area $= [15 + 6]$ sq. cm
$= 21$ sq. cm

(l) Number of full squares = 19
Number of more than half squares = 13
Total Area $= (19 + 13)$ sq. cm
$= 32$ sq. cm

3. (a) Length = 26 cm, breadth = 19 cm

$\text{Perimeter} = 2 \times (\text{length} + \text{breadth})$

$= 2 \times (26 + 19)$ cm

$= 2 \times 45$ cm

$= 90$ cm

(b) Length = 37 m, breadth = 28 m

$\text{Perimeter} = 2 \times (\text{length} + \text{breadth})$

$= 2 \times (37 + 28)$ m

$= 2 \times 65$ m

$= 130$ m

4. (a) Side of square = 60 cm

Perimeter = (4×60) cm

$= 240$ cm

(b) Side of square = 2.5 cm

Perimeter = (4×2.5) cm

$= 10$ cm

5. (a) Perimeter of square = 50 cm

Side of square = 50 / 4 = 12.5 cm

Area of square

$= (\text{side})^2 = (12.50)^2 = 156.25$ sq. cm

(b) Perimeter of square = 18 m

Side of square = 18 / 4 = 4.5 m

Area of square = $(\text{side})^2 = (4.5 \text{ m})^2$

$= 20.25$ sq. m

6. (a) Length = 22 cm, breadth = 13 cm

Area of rectangle = (22×13) sq. cm

$= 286$ sq. cm

(b) Length = 20.5 cm, breadth = 11.9 cm

Area of rectangle = (20.5×11.9) sq. cm

$= 243.95$ sq. cm

7. (a) Side of square = 28 m

Area of square = $(\text{side})^2 = (28 \text{ m})^2$

$= 784$ sq. m

(b) Side of square = 13 cm

Area of square = $(\text{side})^2 = (13 \text{ cm})^2$

$= 169$ cm

8. (a) Area of rectngle = 1 sq. m.

Breadth = 50 cm

Area = length $\times$ breadth

$\text{length} = \dfrac{\text{Area}}{\text{breadth}} = \left(\dfrac{1 \times 10000}{50}\right)$ cm

$= 200$ cm

(b) Area of rectangle = 32 sq. cm

breadth = 8 cm

Area = length $\times$ breadth

$\text{length} = \dfrac{\text{Area}}{\text{breadth}} = \left(\dfrac{32}{8}\right) = 4$ cm

9. (a) Area of rectangle = 150 sq. cm

length = 8 cm

Area = length $\times$ breadth

$\text{breadth} = \dfrac{\text{Area}}{\text{length}} = \left(\dfrac{150}{8}\right)$ cm

$= 18.75$ cm

(b) Area of rectangle = 100 sq. cm

length = 15 cm

Area = length $\times$ breadth

$\text{breadth} = \left(\dfrac{100}{15}\right)$ cm $= 6.67$ cm

10. Perimeter of rectangle = 120 cm

length of rectangle = 40 cm

$\text{Perimeter} = 2 \times (\text{length} + \text{breadth})$

$(\text{length} + \text{breadth}) = \dfrac{\text{Perimeter}}{2}$

$(40 + \text{breadth}) = \dfrac{120}{2}$

breadth = $(60 - 40)$ cm = 20 cm

Area = length $\times$ breadth

$= (40 \times 20)$ sq. cm

$= 800$ sq. cm

11. Area of rectangular playground

$= 16{,}000$ sq. metres

length = 160 metres

Area = length $\times$ breadth

$\text{breadth} = \dfrac{\text{Area}}{\text{length}} = \dfrac{16{,}000}{160} = 100$ m

Perimeter of the playground

$= 2 \times (\text{length} + \text{breadth})$

$= 2 \times (160 + 100)$ m

$= 520$ m

12. Area of the rectangular plot = 800 sq. m

breadth = 25 m

Area = length $\times$ breadth

$\text{length} = \dfrac{\text{Area}}{\text{breadth}} = \left(\dfrac{800}{25}\right)$ m $= 32$ m

$\text{Perimeter} = 2 \times (\text{length} + \text{breadth})$

$= 2 \times (32 + 25)$ m $= 114$ m

13. Perimeter of rectangular park = 260 m

breadth = 50 m

$\text{Perimeter} = 2 \times (\text{length} + \text{breadth})$

$(\text{length} + 50) = \dfrac{260}{2}$

length = $(130 - 50)$ m = 80 m

Area = length × breadth
= (80 × 50) sq. m
= 4,000 sq. m

14. Side of square field = 72 m
Area = $(72\ \text{m})^2$ = 5,184 sq. m
Cost of laying grass per square metre = 40 P
Total cost = (5184 × 40) P = 2,07,360 P
= ₹ 2073.60

15. Area of rectangular table = (1.5 × 2) sq. m
= 3 sq. m
= 3×10^4 sq. m
= 30,000 sq. m
Area of book = (40 × 25) sq. cm
= 1,000 sq. cm
Number of books that can kept on table
$= \frac{30{,}000}{1{,}000} = 30$

16. Side of square field = 15 m
Area = $(15\ \text{m})^2$ = 225 sq. m
Area of rectangular pot = (5 × 3) sq. m
= 15 sq. m
Number of rectangular pots that can be kept in square field = $\frac{225}{15} = 15$

17. Area = 494 sq. m
breadth = 19 m
length = $\frac{\text{Area}}{\text{breadth}}$
$= \frac{494}{19} = 26$ m
In cm, 26 m = 2600 cm

18. length = 978 m breadth = 6.5 m
Area = length × breadth
= (978 × 6.5) sq. m
= 6,357 sq. m

19. Area of 1 plank = (2 × 1.1) sq. m
= 2.2 sq. m
Area of 4 planks = 4 × 2.2 sq. m
= 8.8 sq. m
Cost of painting per sq. m = ₹4.50
Total cost = 8.8 × 4.50
= ₹ 39.60
Cost painting both sides = ₹ 39.60 × 2
= ₹ 79.20

20. Area of 1 carpet = (5 × 3.5) sq. m
= 17.5 sq. m
Total area of the floor = 25 × 17.5 sq. m
= 437.5 sq. m

Must Practice Exercise 14
Text Book Exercise

1. (a) (9 + 7 + 7 + 8 + 10 + 7 + 10 + 7) cm
= 65 cm
(b) (5 + 4 + 5 + 5 + 4 + 5 + 10) cm
= 38 cm
(c) (7 + 7 + 7 + 7) cm
= 28 cm

2. (a) length = 30 cm, width = 48 cm
Perimeter = 2 × (length + width)
= 2 × (30 + 48) cm
= 156 cm
(b) length = 20 cm, width = 34 cm
Perimeter = 2 × (length + width)
= 2 × (20 + 34) cm
= 108 cm
(c) length = 60 cm, width = 20 cm
Perimeter = 2 × (length + width)
= 2 × (60 + 20) cm
= 160 cm
(d) length = 30 cm, width = 12 cm
Perimeter = 2 × (length + width)
= 2 × (30 + 12) cm
= 84 cm

3. (a) Perimeter of triangle = sum of sides
= (14 + 14 + 14) cm
= 42 cm
(b) Perimeter of square = 4 × side
= (4 × 6) cm
= 24 cm
(c) Perimeter of hexagon = 6 × side
= (6 × 6) cm
= 36 cm
(d) Perimeter of pentagon = 5 × side
= (5 × 9) cm
= 45 cm

4. Perimeter = (5 + 3 + 5 + 3) cm
= 16 cm
Area = (5 × 3) sq. cm = 15 sq. cm

5. length = 25 metre, width = 30 metre
Area = length × width
= (25 × 30) sq. metre
= 750 sq. metre

6. length = 125 cm, width = 60 cm
Perimeter = $2 \times$ (length + width)
$= 2 \times (125 + 60)$ cm
$= 370$ cm

7. Perimeter = 260 metre
Side of square field = $\frac{260}{4} = 65$ metre

8. length = 8 metre
width = 7 metre
Area of mat = (8×7) sq. m
$= 56$ sq. m

9. Side of square tool = 60 centimeter
Perimeter = $4 \times$ side
$= 4 \times 60$ centimetre
$= 240$ centimetre

10. Perimeter = 40 m
Side of the square field = $\frac{40}{4} = 10$ m

Additional Exercise

1. (a) Area of rectangle ABCD,
$= (4 \times 5)$ sq. cm
$= 20$ sq. cm
(b) Area of rectangle of PQRS,
$= (7 \times 3)$ sq. cm
$= 21$ sq. cm
(c) No
(d) perimeter of rectangle ABCD,
$= 2 \times (4 + 5)$ cm
$= 18$ cm
(e) Perimeter of rectnagle PQRS,
$= 2 \times (7 + 3)$ cm
$= 20$ cm
(f) Rectnagle PQRS has greter perimeter.

2. $2 \times$ Perimeter of square = 360 metre
$2 \times 4 \times$ side of square = 360 metre
side of square = $\left(\frac{360}{8}\right)$ m
$= 45$ m
Area of square = $(\text{side})^2 = (45 \text{ m})^2$
$= 2{,}025$ sq. m

3. length = 25 m, breadth = 35 m
Perimeter = $2 \times$ (length + breadth)
$= 2 \times (25 + 35)$ m
$= 120$ m
Area = length × breadth
$= (25 \times 35)$ sq. metre
$= 875$ sq. metre

4. Number of full squares = 18
Number of more than half squares = 9
Total area = $(18 + 9)$ sq. cm
$= 27$ sq. cm

Chapter 15 : Capacity

Exercise 15.1

1. (a)

Litre (L)	1	2	3	4	5	6	7	8	9
Millilitre (mL)	1000	2000	3000	4000	5000	6000	7000	8000	9000

1 L = 1000 mL

(b)

mL	1000	2000	3000	4000	5000	6000	7000	8000	9000
L	1	2	3	4	5	6	7	8	9

1000 mL = 1 L

2. (a) 3 L
$= (3 \times 1000)$ mL
$= 3{,}000$ mL
(b) 8 L
$= (8 \times 1000)$ mL
$= 8{,}000$ mL
(c) 10 L
$= (10 \times 1000)$ mL
$= 10{,}000$ mL
(d) 25 L
$= (25 \times 1000)$ mL
$= 25{,}000$ mL
(e) 1 L 500 mL
$= [(1 \times 1000) + 500]$ mL
$= 1{,}500$ mL
(f) 6 L 200 mL
$= [(6 \times 1000) + 200]$ mL
$= 6{,}200$ mL
(g) 7 L 50 mL
$= [(7 \times 1000) + 50]$ mL
$= 7{,}050$ mL

3. (a) 3500 mL
$= (3500 \div 1000)$ L
= 3 L 500 mL
(c) 5500 mL
$= (5500 \div 1000)$ L
= 5 L 500 mL
(d) 6200 mL
$= (6200 \div 1000)$ L
= 6 L 200 mL
(e) 8008 mL
$= (8008 \div 1000)$ L
= 8 L 8 mL
(f) 9250 mL
$= (9250 \div 1000)$ mL
= 9 L 250 mL

Exercise 15.2

1. (a) 3 L 250 mL + 6 L 150 mL
= 9 L 400 mL
(b) 7 L 850 mL + 9 L 300 mL
= 17 L 150 mL
(c) 20 L 500 mL + 35 L 600 mL
= 56 L 100 mL
(d) 45 L 600 mL + 20 L 500 mL
= 66 L 100 mL

2. (a) 5 L 250 mL – 2 L 150 mL
= 3 L 100 mL
(b) 9 L 200 mL – 3 L 150 mL
= 9 L 50 mL
(c) 84 L 600 mL – 34 L 400 mL
= 50 L 200 mL
(d) 55 L 750 L – 32 L 800 mL
= 22 L 950 mL

3. (a) 7 L 350 mL × 2
= 14 L 700 mL
(b) 55 L 400 mL × 5
= 277 L
(c) 8 L 400 mL × 7
= 58 L 800 mL
(d) 9 L 500 mL × 8
= 76 L

4. (a) 36 L 480 L ÷ 6
= 6 L 80 L
(b) 21 L 420 mL ÷ 7
= 3 L 60 mL
(c) 81 L 540 mL ÷ 9
= 9 L 60 mL
(d) 42 L 980 mL ÷ 14
= 3 L 70 mL

Exercise 15.3

1. (a) Juice poured in first bottle = 350 mL
Juice poured in second bottle = 750 mL
Total juice poured = (350 + 750) mL
= 1 L 100 mL

2. 15 L 500 mL + 20 L 100 mL + 50 L 200 mL
= 85 L 800 mL

3. 60 L – 22 L 500 mL
= 37 L 500 mL

4. 500 mL – 200 mL
= 300 mL

5. Capacity of 1 jar = 150 mL
Capacity of 4 such jars = (4 × 150) mL
= 600 mL

6. Capacity of 1 container = 3 L 500 mL
Capacity of 8 such containers = 8 × 3 L 500 mL
= 28 L

7. Capacity of barrel = 24 L
It is poured equally into 4 buckets.
Each bucket will hold = 24 L ÷ 4
= 6 L

8. Capacity of can = 10 L 500 mL
It is poured equally into 5 bottles.
Each bottle will hold = 10 L 500 mL ÷ 5
= 2 L 100 mL

Exercise 15.4

1. (a) 78 M
= (78 × 100) cm
= 7,800 cm
(b) 23 hm 8 dm 7 mm

$$= \left[(23 \times 100 \times 100) + (8 \times 10) + \left(\frac{7}{10}\right)\right] \text{cm}$$

= (2,30,000 + 80 + 0.7) cm
= 2,30,080.7 cm
(c) 88.719 hm
= (88.719 × 100 × 100) cm
= 8,87,190 cm

2. (a) 9 g
= (9 ÷ 1000) kg
= 0.009 kg
(b) 3 kg 75 g
= 3 kg + (75 ÷ 1000) kg
= 3.075 kg
(c) 2 kg 5 hg 4 dag 3 g
= [(2 × 1000) + (5 × 100) + (4 × 10) + 3] g
= (2,000 + 500 + 40 + 3) g
= 2,543 g

3. (a) 49 mL
= (49 ÷ 1000) L
= 0.049 L
(b) 91 L 85 mL
= (91 × 1000) mL + 85 mL
= 91085 mL
(c) 8125 mL
= (8125 ÷ 1000) L
= 8 L 125 mL

4. (a) 200 cL 4000 mL
= (200 ÷ 100) L + (4000 ÷ 1000) L
= (2 + 4) L
= 6 L

(b) 1 kL 3 hL 3 dL 5 cL
$= (1 \times 1000)\text{ L} + (3 \times 100)\text{ L} + (2 \div 10)\text{ L} + (5 \div 100)\text{ L}$
$= [1000 + 300 + 0.2 + 0.05]\text{ L}$
$= 1300.25\text{ L}$

(c) 400 mL
$= (4000 \div 1000)\text{ L}$
$= 0.4\text{ L}$

5. (a) 12 mg
$= (12 \div 1000)\text{ g}$
$= 0.012\text{ g}$

(b) 26 cg 8 mg
$= (26 \div 100)\text{ g} + (8 \div 1000)\text{ g}$
$= (0.26 + 0.008)\text{ g}$
$= 0.268\text{ g}$

(c) 2 dag 526 mg
$= (2 \times 10)\text{ g} + (526 \div 1000)\text{ g}$
$= (20 + 0.526)\text{ g}$
$= 20.526\text{ g}$

6. (a) 25 km
$= (25 \times 1000)\text{ m}$
$= 25{,}000\text{ m}$

(b) 6 hm 15 dam 12 m 3 cm
$= (6 \times 100)\text{ m} + (15 \times 10)\text{ m} + 12\text{ m} + (3 \div 100)\text{ m}$
$= (600 + 150 + 12 + 0.03)\text{ m}$
$= 762.03\text{ m}$

(c) 1 km 1 hm 2 dam 15 mm
$= (1 \times 1000)\text{ m} + (1 \times 100)\text{ m} + (2 \times 10)\text{ m} + (15 \div 1000)\text{ m}$
$= (1000 + 100 + 20 + 0.015)\text{ m}$
$= 1{,}120.015\text{ m}$

7. (a) 8 g 6 dg 9 mg
$= (8 \times 1000)\text{ mg} + (6 \times 100)\text{ mg} + 9\text{ mg}$
$= (8000 + 600 + 9)\text{ mg}$
$= 8{,}609\text{ mg}$

(b) 7 g 3 cg 3 mg
$= (7 \times 1000)\text{ mg} + (3 \times 10)\text{ mg} + 3\text{ mg}$
$= (7000 + 30 + 3)\text{ mg}$
$= 7{,}033\text{ mg}$

(c) 1 dg 7 cg 6 mg
$= (1 \times 100)\text{ mg} + (7 \times 10)\text{ mg} + 6\text{ mg}$
$= (100 + 70 + 6)\text{ mg}$
$= 176\text{ mg}$

8. (a) 5 m 6 cm 7 mm
$= (5 \times 1000)\text{ mm} + (6 \times 10)\text{ mm} + 7\text{ mm}$
$= (5000 + 60 + 7)\text{ mm}$
$= 5{,}067\text{ mm}$

(b) 13 m 6 dam 7 mm
$= (13 \times 1000)\text{ m} + (6 \times 1000)\text{ mm} + 7\text{ mm}$
$= (13{,}000 + 60{,}000) + 7)\text{ mm}$
$= 73{,}007\text{ mm}$

(c) 8 m 6 cm
$= (8 \times 1000)\text{ mm} + (6 \times 10)\text{ mm}$
$= (8000 + 60)\text{ mm}$
$= 8{,}060\text{ mm}$

9. (a) 86 g
$= (86 \div 1000)\text{ kg}$
$0.\,086\text{ kg}$

(b) 21 g 82 kg
$= (21 \div 1000)\text{ kg} + 82\text{ kg}$
$= 82.021\text{ kg}$

(c) 4 g 91 kg
$= (4 \div 1000)\text{ kg} + 91\text{ kg}$
$= 91.004\text{ kg}$

10. (a) 1 km
$= (1 \times 1000)\text{ m}$
$= 1000\text{ m}$

(b) 1 cm
$= (1 \times 10)\text{ mm}$
$= 10\text{ mm}$

(c) 1 dam
$= (1 \times 10)\text{ m}$
$= 10\text{ m}$

(d) 1 g
$= (1 \div 1000)\text{ kg}$
$= 0.001\text{ kg}$

(e) 1 g
$= (1 \times 10)\text{ dg}$
$= 10\text{ dg}$

(f) 1 hg
$= (1 \times 100)\text{ g}$
$= 100\text{ g}$

Must Practice Exercise 15

1. (a) $1\text{ L} + 500\text{ mL} + 200\text{ mL} = 1{,}700\text{ mL}$
$= 1\text{ L }700\text{ mL}$

(b) $1\text{ L} + 1\text{ L} + 1\text{ L} + 500\text{ mL} = 3{,}500\text{ mL}$
$= 3\text{ L }500\text{ mL}$

(c) $500\text{ mL} + 500\text{ mL} + 200\text{ mL} + 100\text{ mL} + 50\text{ mL}$
$= 1{,}350\text{ mL}$
$= 1\text{ L }350\text{ mL}$

2. (a) 2 L 750 mL
$= 1\text{ L} + 1\text{ L} + 500\text{ mL} + 200\text{ mL} + 50\text{ mL}$

(b) 1 L 600 mL
$= 1\text{ L} + 500\text{ mL} + 100\text{ mL}$

(c) 4 L 250 mL
= 1 L + 1 L + 1 L + 1 L + 200 mL + 50 mL

(d) 3 L 800 mL
= 1 L + 1 L + 1 L + 500 mL + 200 mL + 100 mL

3. 500 mL + 200 mL + 100 mL
= 800 mL
Capacity of thermos = 2 × 800 mL
= 1,600 mL
= 1 L 600 mL

4. Capacity of 1 can = 3 L
Amount of kerosene required to fill 8 such cans
= 8 × 3 L
= 24 L

5. Capacity of each packet of milk = 250 mL
Total amount of milk available = 10 L
= (10 × 1000) mL
= 10,000 mL
Number of packets form = 10000 ÷ 250
= 40

6. 10 × 5 L = 50 L
20 × 3 L = 60 L
15 × 2 L = 30 L
Total = (60 + 50 + 30) L = 140 L
Capacity of oil drum = 200 L
Remaining amount of oil = (200 – 140) L
= 60 L
Number of cans of 1 litre that can be filled from remaining amount of oil = 60 ÷ 1 = 60

7. (a) 500 mL × 3 = 1,500 mL = $1\frac{1}{2}$ L
(b) 500 mL × 2 = 1 L
(c) 40 × 2.25 = ₹90
(d) 1 L = 1000 mL

8. Filling rate = 25 litre per hour
Draining rate = 10 litre per hour
After 4 hours
Water filled in tank = 25 × 4 = 100 L
Water drained from tank = 10 × 4 = 40 L
Amount of water left in the tank = (100 – 40) L
= 60 L

9. $3\frac{1}{2}$ km
$= \left[(3 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right]$ m
= 3,500 m

10. 6500 g
= (6500 ÷ 1000) kg
= 6.5 kg

11. 2250 mL
= (2250 ÷ 1000) L
= 2.25 L

12. 18000 mL
= (18000 ÷ 1000) L
= 18 L

13. 7500 g
(7500 ÷ 1000) kg
= 7.5 kg

14. $2\frac{1}{2}$ L
$= \left[(2 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right]$ mL
= 2,500 mL

15. $1\frac{1}{2}$ kg
$= \left[(1 \times 1000) + \left(\frac{1}{2} \times 1000\right)\right]$ g
= 1,500 g

16. 3 m
= (3 × 1000) mm
= 3,000 mm

17. Capacity of water tank = 5000 L
Capacity of each drum = 20 L
Number of drums that can be filled from water tank,
$= \frac{5000}{20}$
= 250

18. Capacity of 1 container = 15 litre
3750 litre of oil can be stored in = $\frac{3750}{15}$
= 250 containers

19. Capacity of 1 container = 13 kg 500 g
Capacity of 48 such containers
= 48 × 13 kg 500 g
= 648 kg

Additional Exercise

1. (a) 2 L 750 mL

$= 500 \text{ mL} + 500 \text{ mL} + \text{mL} + 500 \text{ mL} + 500 \text{ mL} + 200 \text{ mL} + 50 \text{ mL}$

(b) 3 L 800 mL

$= 500 \text{ mL} + 500 \text{ mL} + 500 \text{ mL} + 500 \text{ mL} + 500 \text{ mL} + 500 \text{ mL} + 500 \text{ mL} + 200 \text{ mL} + 100 \text{ mL}$

2. (a) $7\frac{2}{5}$ kg

$$= \left[(7 \times 1000) + \left(\frac{2}{5} \times 1000\right)\right] \text{g}$$

$= 7{,}400$ g

(b) 7 kg 750 g

$= (7 \times 1000)$ g $+ 750$ g

$= 7{,}750$ g

(c) 10 kg

$= (10 \times 1000 \times 1000)$ mg

$= 1{,}00{,}00{,}000$ mg

3. Capacity of 1 bucket = 10 L 500 mL

Number of buckets required to fill a tank of capacity 651 L,

$= 651$ L $\div$ 10 L 500 mL

$= 62$

4. Holding capcity of tanker = 2000 L

$20 \times 20 \text{ L} = 400 \text{ L}$

$10 \times 15 \text{ L} = 150 \text{ L}$

Total water taken = $(400 + 150)$ L = 550 L

Amount of water remain in tanker

$= (2000 - 550)$ L

$= 1{,}450$ L

5. 25 L, 45 L

HCF of 25 and 45 will be :

$25 = 5 \times \underline{5}$

$45 = 3 \times 3 \times \underline{5}$

HCF = 5

Therefore, 5 L will be the largest capacity by which both drums can be filled.

6. (a) 2 L 200 mL

$= 2 \text{ L} + 200 \text{ mL}$

(b) 5 L 500 mL

$= 2 \text{ L} + 2 \text{ L} + 1 \text{ L} + 200 \text{ mL} + 200 \text{ mL} + 100 \text{ mL}$

(c) 3 L 200 mL

$= 2 \text{ L} + 1 \text{ L} + 200 \text{ mL}$

7. HCF of 20 and 30 :

$20 = 2 \times 2 \times \underline{5}$

$30 = 2 \times 3 \times \underline{5}$

HCF = 5

5 L will be measure of largest pot.

8. Holding capacity of 1 drum = 220 L

Holding capacity of 340 such drums

$= 340 \times 220$ L

$= 74{,}800$ L

9. (a) 1000 mL

$= (1000 \div 1000)$ L

$= 1$ L

(b) 1 cm

$= (1 \times 10)$ mm

$= 10$ mm

(c) 100 cm

$= (100 \div 100)$ m

$= 1$ m

(d) 1000 m

$= (1000 \div 1000)$ km

$= 1$ km

(e) 1 m

$= (1 \times 1000)$ mm

$= 1{,}000$ mm

10. (a) True [5 km = (5×100) m = 5,000 m]

(b) False [4.5 mm = $(4.5 \div 10)$ cm = 0.45 cm]

(c) False

$$\left(2\frac{2}{5} \text{ km} = \left[(2 \times 1000) + \left(\frac{2}{5} \times 1000\right)\right] \text{m} = 2400 \text{ m}\right)$$

(d) True

$$\left(1\frac{3}{4} \text{ km} = \left[(1 \times 1000) + \left(\frac{3}{4} \times 1000\right)\right] \text{m} = 1750 \text{ m}\right)$$

Chapter 16 : Geometry

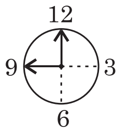
Exercise 16.1

1. 360°

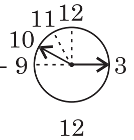
2. No

3. Protractor, degree (°)
4. Do by yourself
5. Do by yourself
6. Do by yourself
7. Do by yourself
8. 360°
9. (a) 180° : Straight
(b) 91° : Obtuse
(c) 95° : Obtuse
(d) 22° : Acute
(e) 110° : Obtuse
(f) 205° : Reflex
(g) 15° : Acute
(h) 90° Right

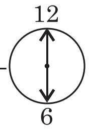
10. (a) 90° ——————



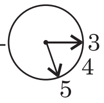
(b) 150° ——————



(c) 180° ——————



(d) 60° ——————



11. Do by yourself
12. Do by yourself
13. (a) ∠ (b) straight
(c) 90° (d) less than 90°
(e) Obtuse angle (f) Vertex
(g) Protractor
14. (a) = (b) > (c) =
15. (a) a, b, k (b) d, e, h (c) f, g

Must Practice Exercise 16

Text Book Exercise

1. (a) A, B, C, D, E, M, V : Vertices of acute angle
(b) F, G, H, I, J, K, T, V : Vertices of right angle
(c) N, L, P, Q, R, S, O, W : Vertices of obtuse anlge
2. Do by yourself

Additional Exercise

1. Obtuse angle (> 90°)
2. Do by yourself
3. Angle made by full revolution = 360°
Therefore, angle made by half revolution
$$= \frac{360°}{2} = 180°$$
4. (a) Acute anlge (< 90°)
(b) Right angle (= 90°)
(c) Right angle (= 90°)
(d) Obtuse angle (> 90°)
5. Angle made in one complete revolution = 360°
6. (a) 0°, 90° (b) 90°
(c) 90°, 180° (d) 180°
7. (a) True (Right angle = 90°)
(b) True (c) False (d) False
8. (a) (iv) 180° (b) (iii) 180°
(c) (iv) 270° (d) (i) Two

Chapter 17 : Mental Mathematics

Exercise 17.1

1. (i) (c) How many people are there in each row?
(ii) (b) How many full rows can be planted?
2. Candles produced in a week = 1,792
Candles produced in a day $= \frac{1,792}{7}$
$= 256$
3. Total amount = ₹ 3,600
Number of persons = 16
Money recieved by each person $= \frac{3600}{16}$
= ₹ 225
4. Mass of 8 boxes = 144 kg
Mass of 1 box $= \frac{144}{8}$ kg
= 18 kg
5. Cost of 1 pen = ₹ 18
Number of pens can be bought for ₹ 648 $= \frac{648}{18}$
$= 36$
6. Total number of books = 576
Number of books pached in 1 box = 24
boxes needed $= \frac{576}{24} = 24$

7. 525 ÷ 25

quotient = 21

$$25\overline{)525}\;=21$$

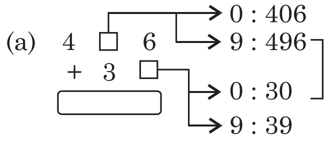
21
25) 525
50
25
25
0

8. 576 ÷ 18 = 32

$\Rightarrow \dfrac{576}{18} = 32$

$\Rightarrow 18 \times \boxed{32} = 576$

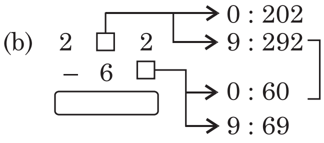
9. (a)


4 ☐ 6
+ 3 ☐
0 : 406
9 : 496
0 : 30
9 : 39

406 + 30 = 436
496 + 39 = 535

Range : 436 – 535

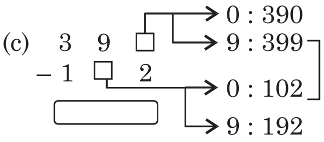
(b)


2 ☐ 2
– 6 ☐
0 : 202
9 : 292
0 : 60
9 : 69

202 + 60 = 142
292 – 69 = 223

Range : 142 – 223

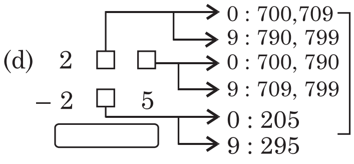
(c)


3 9 ☐
– 1 ☐ 2
0 : 390
9 : 399
0 : 102
9 : 192

390 – 102 = 288
399 – 192 = 207

Range : 207 – 288

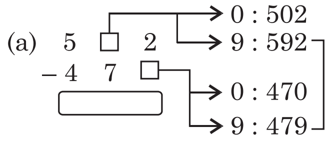
(d)


2 ☐ ☐
– 2 ☐ 5
0 : 700,709
9 : 790, 799
0 : 700, 790
9 : 709, 799
0 : 205
9 : 295

700–205=495
799–295=504

Range : 495 – 504

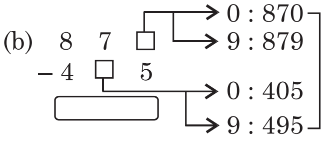
10. (a)


5 ☐ 2
– 4 7 ☐
0 : 502
9 : 592
0 : 470
9 : 479

502 – 470 = 32
592 – 479 = 113

(i) 111

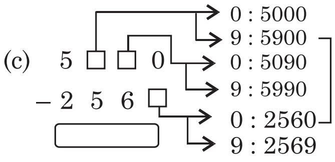
(b)


8 7 ☐
– 4 ☐ 5
0 : 870
9 : 879
0 : 405
9 : 495

870 – 405 = 465
879 – 495 = 384

(i) 444

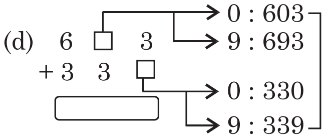
(c)


5 ☐ ☐ 0
– 2 5 6 ☐
0 : 5000
9 : 5900
0 : 5090
9 : 5990
0 : 2560
9 : 2569

5000–2560=2440
5990–2569=3421

(ii) 2448

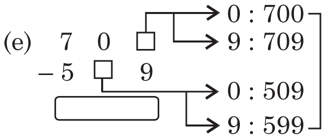
(d)


6 ☐ 3
+ 3 3 ☐
0 : 603
9 : 693
0 : 330
9 : 339

603 + 330 = 933
693 + 339 = 1032

(i) 986

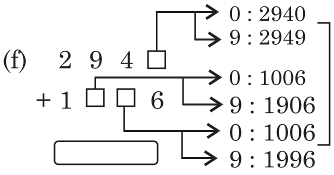
(e)


7 0 ☐
– 5 ☐ 9
0 : 700
9 : 709
0 : 509
9 : 599

700 – 509 = 191
709 + 599 = 110

(ii) 112

(f)


2 9 4 ☐
+ 1 ☐ ☐ 6
0 : 2940
9 : 2949
0 : 1006
9 : 1906
0 : 1006
9 : 1996

2940+1006=3946
2949+1996=4945

(iii) 3998

11. Prime numbers between 60 and 70 :
61, 67

12. Rule of divisibility by 10 :
Last digit of number must be zero (0).

13. Four odd two digit multiple of 11 :
11 × 3 = 33
11 × 5 = 55
11 × 7 = 77
11 × 9 = 99

14.

6	7	2
1	5	9
8	3	4

Magic sum : 15

15.

12	1	18
9	6	4
2	36	3

Magic product : 216

16. (a)

		7	4	0
		×	6	2
	1	4	8	0
4	4	4	0	
4	5	8	8	0

(b)

$1\,\boxed{6}\,9$
$8\overline{)1352}$
$-\boxed{8}$
55
$-\boxed{4}\boxed{8}$
72
-72
0

(c)

$$\begin{array}{r} \boxed{3}\,1\,\boxed{5}\,\boxed{1} \\ 15\overline{)\,4\,7\,\boxed{2}\,6\,\boxed{8}} \\ -\boxed{4}\,\boxed{5} \\ \hline 2\,2 \\ -\boxed{1}\,\boxed{5} \\ \hline \boxed{7}\,6 \\ -7\,5 \\ \hline \boxed{1}\,8 \\ \boxed{1}\,5 \\ \hline \boxed{3} \end{array}$$

17. $(1000 + 0 + 20 + 3) \times 4$
$= (1000 \times 4) + (0 \times 4) + (20 \times 4) + (3 \times 4)$
$= 4092$

18. $\boxed{} \times 2000 = 8000$

$\square = \dfrac{8000}{2000} \Rightarrow \square = 4$

19. (a) 5 thousands × 1 ten = $\boxed{}$ hundreds

$\Rightarrow 5{,}000 \times 10 = 50{,}000 = 500$ hundreds

(b) 175×2 tens

$\Rightarrow 175 \times 20 = 3500 = 350$ tens

Must Practice Exercise 17
Text Book Exercise

1. (a) 5 $\square$ 3
+ 5 $\square$

→ 0 : 530
→ 9 : 593
→ 0 : 50
→ 9 : 59

530 + 50 = 553
593 + 59 = 652

(iii) 582

(b) 3 $\square$ 5
+ 2 8 $\square$

→ 0 : 305
→ 9 : 395
→ 0 : 280
→ 9 : 289

305 + 280 = 585
595 + 289 = 684

(ii) 597

(c) 4 7 $\square$ 3
+ 3 $\square$ 8 $\square$

→ 0 : 4703
→ 9 : 4793
→ 0 : 3080
→ 9 : 3980
→ 0 : 3080
→ 9 : 3989

4703+3080=7783
4793+3989=8782

(i) 7807

(d) 7 0 $\square$
− 3 $\square$ 5

→ 0 : 700
→ 9 : 709
→ 0 : 305
→ 9 : 395

700 − 305 = 395
709 − 395 = 314

(iii) 381

(e) 8 6 4
− 5 $\square$ $\square$

→ 0 : 500
→ 9 : 509
→ 0 : 590
→ 9 : 599

864 − 500 = 364
864 − 599 = 265

(i) 272

(f) 6 5 $\square$ 1
− 2 $\square$ 4 $\square$

→ 0 : 6501
→ 9 : 6591
→ 0 : 2040
→ 9 : 2940
→ 0 : 2049
→ 9 : 2949

6501–2040=4461
6591–2949=3642

(ii) 4242

2. (a) 7 + $\boxed{6}$ = $\boxed{1}$ 3

(b) $\boxed{8}$ + 4 = $\boxed{1}$ 2

(c) 2 9 + 3 $\boxed{5}$ = $\boxed{6}$ 4

(d) 2 $\boxed{1}$ + $\boxed{8}$ 5 = $\boxed{1}$ 0 6

(e) 6 $\boxed{2}$ $\boxed{3}$ + 2 8 $\boxed{4}$ = $\boxed{9}$ 0 7

(f) 8 4 $\boxed{2}$ + 3 9 6 = $\boxed{1}$ 2 $\boxed{3}$ 8

(g) 1 $\boxed{0}$ − 6 = 4

(h) $\boxed{5}$ 8 − 2 $\boxed{2}$ = 3 6

(i) 3 $\boxed{7}$ − $\boxed{3}$ 2 = 5

(j) 4 8 $\boxed{5}$ − $\boxed{2}$ 5 1 = 2 $\boxed{3}$ 4

(k) 8 $\boxed{9}$ 5 − $\boxed{4}$ 2 4 = 4 7 $\boxed{1}$

(l) 4 9 $\boxed{3}$ − $\boxed{2}$ 5 $\boxed{8}$ = 2 $\boxed{3}$ 5

(m) 5 2 1 $\boxed{4}$ + $\boxed{4}$ 5 9 2 = 9 8 $\boxed{0}$ 6

(n) 3 2 $\boxed{6}$ 0 + 2 $\boxed{4}$ 3 8 = $\boxed{5}$ 6 9 $\boxed{8}$

(o) 9 $\boxed{9}$ 9 $\boxed{9}$ − 8 9 2 7 = 1 0 $\boxed{7}$ 2

3. (a) 3 $\boxed{9}$ 5 + 4 2 $\boxed{7}$ = 8 2 2

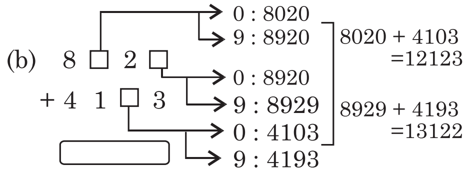
(b) 9 5 $\boxed{2}$ − 4 $\boxed{6}$ 3 = $\boxed{4}$ 8 9

4. (a) 5 2 $\square$ 4
+ 3 $\square$ 6 $\square$

→ 0 : 5204
→ 9 : 5294
→ 0 : 3060
→ 9 : 3960
→ 0 : 3960
→ 9 : 3960

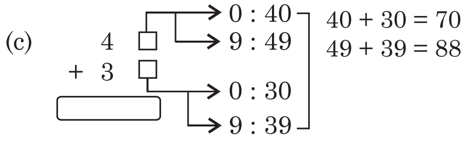
5204+3060=8264
5294+3969=9263

(iii) 8491



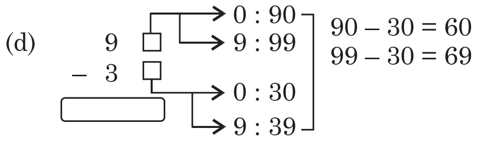
(b) 8 ☐ 2 ☐
+ 4 1 ☐ 3
0 : 8020
9 : 8920
0 : 8920
9 : 8929
0 : 4103
9 : 4193
8020 + 4103 =12123
8929 + 4193 =13122

(i) 12852



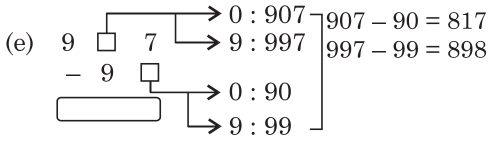
(c) 4 ☐
+ 3 ☐
0 : 40
9 : 49
0 : 30
9 : 39
40 + 30 = 70
49 + 39 = 88

(iii) 86



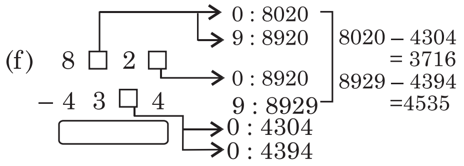
(d) 9 ☐
– 3 ☐
0 : 90
9 : 99
0 : 30
9 : 39
90 – 30 = 60
99 – 30 = 69

(ii) 63



(e) 9 ☐ 7
– 9 ☐
0 : 907
9 : 997
0 : 90
9 : 99
907 – 90 = 817
997 – 99 = 898

(iii) 833



(f) 8 ☐ 2 ☐
– 4 3 ☐ 4
0 : 8020
9 : 8920
0 : 8920
9 : 8929
0 : 4304
0 : 4394
8020 – 4304 = 3716
8929 – 4394 =4535

(ii) 3942

5. $25 \times 4 = 100$
Therefore, number will be 4.

6. 10

7. $\underbrace{1, 3, 5, 7, 9}_{\text{5 in total}}$

8. 2

9. digits divisible by 7 = 7
Therefore, number will be 77.

10. 1

11. $9 \times 6 = 54$ (multiplication)

12. $6 \div 3 = 2$ (division)

13. Zero (0)

14. Multiples of 2 = 2, 4, 6, 8, 10, ⑫
Multiples of 3 = 3, 6, 9, ⑫, 15

12 is the smallest number divisible by 2 and 3.

15. $12 \times 7 = 84$ (multiplication)

16. $45 \div 15 = 3$ (division)

17. $45 \times 1 = 45$
$45 \times 3 = 135$
$45 \times 5 = 225$

18. Multiples of 4 = 4, 8, ⑫, 16, 20
Multiples of 6 = 6, ⑫, 18, 24 , 30

12 is the smallest number divisible by 4 and 6.

Additional Exercise

1. (a) Sum = 6549
One number = 3269
Second number = 6549 – 3269 = 3280
(iii) 3280

(b) $6 \times \square = 15$

$$\Rightarrow \square = \frac{24}{6} = 4$$

(ii) 4

(c) $5 \times \square = 15$

$$\Rightarrow \square = \frac{15}{5} = 3$$

(iv)1

2. (a) $25 \times 98 \times 4$
$= 98 \times (25 \times 4)$
$= 98 \times 100$
$= 9{,}800$

(b) (smallest 4-digit number + 12) × 4
$= (1000 + 12) \times 4$
$= 1012 \times 4$
$= 4048$

(c) Number of days in 1 month = 30
Number of days in 120 month = 120 × 30
= 3,600

(d) Number of pages in 1 book = 130
Number of pages in 20 books = 20 × 130
= 2,600

(e) $9191 \div 91$
quotient = 101, remainder = 0

3. (a) True $(5 \times 0 = 0)$
(b) True $(5 \times 1 = 5)$
(c) True $(15 \div 3 = 5)$
(d) False $(5 - 0 = 5)$
(e) False $(5 \times 3 = 15; 5 \times 4 = 20)$

4. Sum = 7678
one number = 4613
4613 + other number = 7678
⇒ other number = 7668 – 4613
= 3065

5. (a)
$$\begin{array}{r} 6\ 8 \\ +\ 8\ \boxed{5} \\ \boxed{\boxed{8}\ 3} \end{array}$$

(b)
$$\begin{array}{r} 3\ 8 \\ +\ 2\ \boxed{4} \\ \boxed{\boxed{6}\ 2} \end{array}$$

(c)
$$\begin{array}{r} 5\ 9 \\ -\ 3\ \boxed{4} \\ \boxed{\boxed{2}\ 5} \end{array}$$

(d)
$$\begin{array}{r} 8\ \boxed{6} \\ -\ \boxed{3}\ 2 \\ \boxed{5\ 4} \end{array}$$

(e)
$$\begin{array}{r} 2\ 9 \\ +\ 3\ \boxed{5} \\ \boxed{\boxed{6}\ 4} \end{array}$$

(f)
$$\begin{array}{r} 4\ 7 \\ -\ 2\ \boxed{5} \\ \boxed{\boxed{2}\ 2} \end{array}$$

(g)
$$\begin{array}{r} 5\ 9 \\ -\ 2\ \boxed{5} \\ \boxed{\boxed{3}\ 4} \end{array}$$

(h)
$$\begin{array}{r} 7\ \boxed{7} \\ -\ \boxed{2}\ 3 \\ \boxed{5\ 4} \end{array}$$