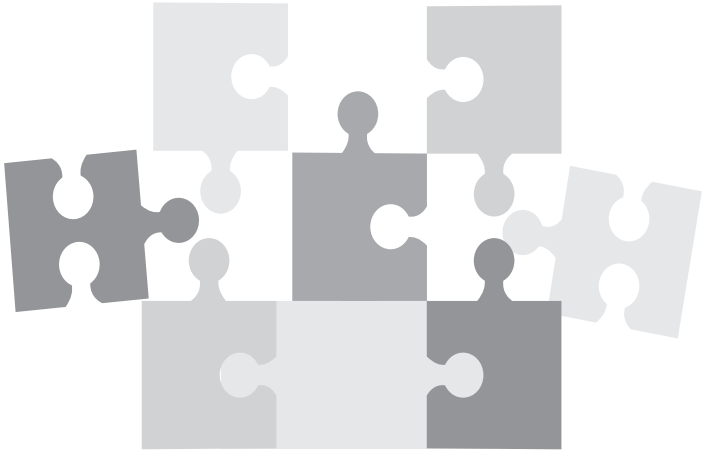
Teachers' Manual

Class 3 to 5

Mathematics



Mathematics - 3

1. Numbers Upto 999

Exercise-1.1

1. (a) 400 + 40 + 6 =

H	T	0
4	4	6

(b) 200 + 30 + 5 =

H	T	0
2	3	5

2. (a) 826 827 828 829 830 831 832 833 834 835

(b) 572 573 574 575 576 577 578 579 580 581

3. (a) 154, 153, 152, 151, 150, 149, 148, 147, 146, 145

(b) 437, 436, 435, 434, 433, 432, 431, 430, 429, 428

4. (a) 672 = [6] hundreds + [7] tens + [2] ones

(b) 777 = [7] hundreds + [7] tens + [7] ones

(c) 905 = [9] hundreds + [0] tens + [5] ones

5. (a) 564 = Five hundreds sixty four

(b) 682 = Six hundreds eighty two

(c) 713 = Seven hundreds thirteen

(d) 838 = Eight hundreds thirty eight

6. (a) 892 (b) 999 (c) 147

7. (a) 200; Two hundreds

(b) 400; Four hundreds

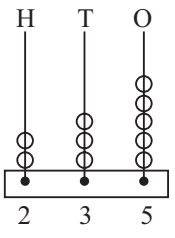
(c) 500; Five hundreds

8. (a) 20 tens = 2 hundreds = 200

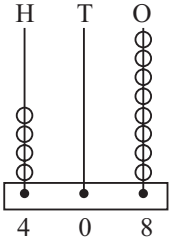
(b) 70 tens = 7 hundreds = 700

Exercise-1.2

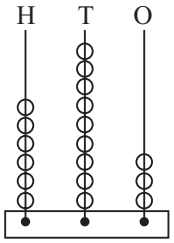
1. (a)



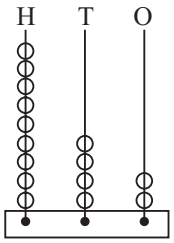
(b)



(c)



(d)



2. (a) 827 Place Value Fave Value

7 = 7 7

(b) 547

5 = 500 5

3. (a) 347 = 300 + 40 + 7

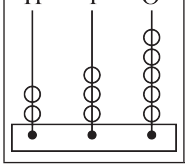
(b) 748 = 700 + 40 + 8

4. (a) 400 + 8 = 408 (b) 600 + 40 = 640

(c) 900 + 80 + 9 = 989

(d) 800 + 70 + 2 = 872

5.

Abacus	Columns			Expmded
Fig	H	T	O	form
	2	3	5	200 + 30 + 5

6. 353 Place Value Face Value

3 = 3 3

5 = 50 5

3 = 300 3

Exercise-1.3

1. (a) 540 [541] (b) 989 [990]

(c) [899] 900 (d) 248 [249] 250

(e) [733] 734 (f) 399 [400] 401

2. (a) 200, 240, 330, 760, 800, 980

(b) 821, 785, 654, 543, 458, 3

3. (a) 287 and 290; [288] [289]

(b) 415 and 418; [416] [417]

(c) 977 and 980; 978 979

(d) 468 and 471; 469 470

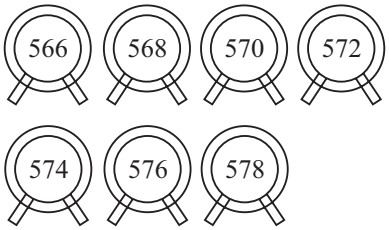
4. (a) 214 ≥ 95 (b) 509 ≤ 590

(c) 394 ≥ 349 (d) 404 = 404

(e) 372 ≤ 375 (f) 894 ≤ 896

Exercise-1.4

1. Do your self.

2. 

Pattern ⇒ Previous number + 2

3. (a)

57	33
47	(22)
	51

(b)

(34)	41
77	51
	93

(c)

73	91
(60)	49
	17

(d)

53	(44)
45	47
	49

4. (a)

28	(25)
50	34
	46

(b)

38	60
(31)	56
	72

(c)

(35)	80
32	58
	(79)

(d)

32	64
78	(27)
	(39)

5. (a) April is <u>fourth</u> month of the year.

(b) The third month of the year is <u>march</u>.

(c) The <u>second</u> month of the years is February.

(d) The fifth month of the years is <u>may</u> and June is the <u>sixth</u> month of the year.

BRUSH UP YOUR CONCEPTS

Tricky Numbers

1. 103, 993

103 = One hundred three

993 = Nine hundred ninety three

Greatest number = 993

Smallest number = 103

2. 101, 901

901 = Nine hundred one

101 = One hundred one

Greatest number = 901

Smallest number = 101

3. 3 numbers just before 899 are :

896, 897, 898

896 = Eight hundred ninety six

897 = Eight hundred ninety seven

898 = Eight hundred ninety eight

3 numbers just after 899 are :

900, 901, 902

900 = Nine hundred

901 = Nine hundred one

902 = Nine hundred two

Challenge :

1. (a) BAT 109 (b) RUN 703

(c) DAD 303 (d) FEW 542

(e) ZOO 544 (f) JOY 944

2. (a) One hundred nine

(b) Seven hundred three

(c) Three hundrerd three

(d) Five hundred forty two

(e) Five hundred forty four.

(f) Nine hundred forty four.

3. Greatest number; 944

Smallest number; 109

2. Addition

Exercise-2.1

1. (a) 359 + 4 = 363 (b) 789 + 5 = 794

(c) 618 + 2 = 620 (d) 599 + 2 = 601

(e) 263 + 7 = 270 (f) 699 + 4 = 703

2. (a)

	H	T_1	0
		1	
+	7	1	7
			4
	7	2	1

(b)

	H	T_1	0
		1	
+	5	2	7
			8
	5	3	5

(c)

	H	T_1	0
		1	
+	3	5	8
			3
	3	6	1

(d)

	H	T	0
		1	
	9	8	8
+			8
	9	9	6

(e)

	H	T	0
		.	
	9	5	0
+			5
	9	5	5

(f)

	H	T	0
	9	0	4
+			3
	9	0	7

(g)

	H	T	0
	2	5	0
+			5
	2	5	5

(h)

	H	T	0
		1	
	9	1	3
+			7
	9	2	0

Exercise-2.2

1. (a)

	H	T	0
		1	
	7	1	7
+		2	4
	7	4	1

(b)

	H	T	0
		1	
	5	2	7
+		2	8
	5	5	5

(c)

	H	T	0
	1	1	
	3	5	8
+		6	3
	4	2	1

(d)

	H	T	0
	1	1	
	8	8	8
+		7	8
	9	6	6

2. (a) 184 + 212 = 396

(b) 537 + 120 = 657

(c) 451 + 111 = 562

(d) 725 + 140 = 865

(e) 146 + 124 = 270

(f) 321 + 119 = 440

3. (a) 82 + 235 = 317

(b) 328 + 90 = 418

4. (a) 424 + 59 = 479 False

(b) 368 + 24 = 382 False

(c) 531 + 98 = 629 True

(d) 743 + 53 = 796 True

Exercise-2.3

1. addends of the given addition are :

(a) 996 – 496 = 500

(b) 802 – 700 = 102

(c) 502 – 400 = 102

(d) 867 – 767 = 100

(e) 658 – 500 = 158

(f) 797 – 300 = 497

2. (a) 345 + 550

= 300 + 40 + 5 + 500 + 50 + 0

= 300 + 500 + 40 + 50 + 5 + 0

= 800 + 90 + 5

= 895

(b) 703 + 292

= 700 + 0 + 3 + 200 + 90 + 2

= 700 + 200 + 0 + 90 + 3 + 2

= 900 + 90 + 5

= 995

3. (a)

	H	T	0
	1		
	6	8	0
+	2	4	6
	9	2	6

(b)

	H	T	0
	0	0	
	6	0	2
+	2	2	7
	8	2	9

(c)

	H	T	0
	0	0	
	2	0	4
+	5	7	2
	7	7	6

(d)

	H	T	0
	0	1	
	5	0	4
+	4	0	6
	9	1	0

4. (a)

	H	T	0
	0	0	
	1	5	5
+	3	3	1
	4	8	6

(b)

	H	T	0
	1	4	3
+	1	4	6
	2	8	9

(c)

	H	T	0
	1	4	2
+	2	3	3
	3	7	5

(d)

	H	T	0
	2	2	4
	1	4	3
	3	6	7

Exercise-2.4

1. In a ball pool,

Number of red balls = 554

Number of blue balls = + 378

Total number of balls = 932

2. In a farm number of mango trees = 336

In a farm number of neem trees = + 443

Total number of trees in a farm = 779

3. Number of voters in a village = 512
Number of voters in another village
= + 237
Total number of voters in two villages
= 749

4. No. of cow grazing in the field = 207
No. of buffaloes grazing in the field
= + 312
No. of animals are grazing in the field
= 519

5. Number of mud houses = 546
Number of pucca houses = + 384
Total number of houses = 930

BRUSH UP YOUR CONCEPTS

Jack Ride

1. The distance need to cover to arrive at the traffic lights by J ack = 21 km.

2. The distance need tyo cover to arrive at the second road segn = 21 + 45 = 66 km

3. The distance from the traffic light to the and of the road = 45 + 56 = 101 km.

4. Total length of the road
= 21 + 45 + 56
= 122 km.

Pyramid Maths

			1542			
			772	770		
		404	368	332		
	211	193	175	157		
110	101	92	83	74		
60	50	51	41	42	32	
50	10	40	11	30	12	20

Mental Maths

In Horizontal addition.

$1 + A + 4 + 4 = 16$
$\Rightarrow \quad 9 + A = 16$
$\Rightarrow \quad A = 16 - 9$
$= 7$
$2 + B + C + 1 = 14$
$\Rightarrow \quad 3 + B + C = 14$
$\Rightarrow \quad B + C = 11 \quad ...(1)$

In vertical addition
$A + B + 3 + 3 = 16$
$\Rightarrow \quad A + B + 6 = 16$
$\Rightarrow \quad 7 + B + 6 = 16 \quad [\because A = 7]$
$\Rightarrow \quad 13 + B = 16$
$\Rightarrow \quad B = 16 - 13$
$\Rightarrow \quad B = 3$

Put the value of B in eqn (i), we get
$3 + C = 11$
$\Rightarrow \quad C = 11 - 3 = 8$

In vertical addition
$4 + C + 3 + F = 20$
$\Rightarrow \quad 4 + 8 + 3 + F = 20 \quad [\because C = 8]$
$\Rightarrow \quad 15 + F = 20$
$\Rightarrow \quad F = 20 - 15 = 5$
$4 + 1 + E + 8 = 16$
$\Rightarrow \quad 13 + E = 16$
$\Rightarrow \quad E = 16 - 13 = 3$
And $1 + 2 + D + 4 = 8$
$\Rightarrow \quad 7 + D = 8$
$\Rightarrow \quad D = 8 - 7 = 1$

Hence, A = 7, B = 3, C = 8, D = 1, E = 3, and F = 5.

Addition challenge

1. 627 2. 533
3. 123 4. 942
(a) 1160 (b) 1065
(c) 1569 (d) 656
(e) 2225

3. Subtraction

Exercise-3.1

1. (a)

	H	T	0
	5	6	8
–		.	8
	5	6	0

(b)

	H	T	0
	3	4	7
–			6
	3	4	1

(c)

	H	T	0
.	8	7	4
–			2
	8	7	2

(d)

	H	T	0
	5	3	8
–			7
	5	3	1

2. (a) 247 – 9 = 238 (b) 559 – 5 = 554

(c) 695 – 7 = 688 (d) 537 – 1 = 536

(e) 522 – 8 = 514 (f) 582 – 3 = 579

(g) 729 – 6 = 723 (h) 542 – 5 = 537

(i) 702 – 9 = 693 (j) 265 – 9 = 256

(k) 830 – 7 = 823 (l) 491 – 9 = 482

Exercise-3.2

1. (a)

	H	T	0
	2	3	5
–		1	0
	2	2	5

(b)

	H	T	0
	6	9	1
–		9	0
	6	0	1

(c)

	H	T	0
	3	6	2
–		4	0
	3	2	2

2. (a) 293 – 64 = 229 (b) 851 – 46 = 805

(c) 740 – 19 = 721

3. (a)

	H	T	0
	0	13	
	1	3	5
–		7	5
	0	6	0

(b)

	H	T	0
		3	14
	2	4	4
–		1	9
	2	2	5

(c)

	H	T	0
	6	12	10
	7	3	0
–		3	9
	6	9	1

4. (a) 488 – 55 = 433

(b) 500 – 85 = 415.

Exercise-3.3

1. (a) 615 – 400 = 215

(b) 350 – 200 < 160

(c) 377 – 150 > 200

(d) 270 – 130 > 100

2. (a) 400 – 112 = 288

$\because$ ☐ = 288 + 112 = 400.

(b) 588 – 301 = 287

$\because$ ☐ = 287 + 301 = 588

(c) 980 – 358 = 622

$\because$ 980 – 622 = ☐

$\Rightarrow$ ☐ = 358

(d) $644 - \boxed{314} = 330$

$\because \quad 644 - 330 = \square$

$\Rightarrow \quad 314 = \square$

$\Rightarrow \quad \square = 314$

3. (a)

	H	T	0
	7	2	9
–	3	2	0
	4	0	9

(b)

	H	T	0
	4	6	9
–	1	1	0
	3	5	9

(c)

	H	T	0
	7	5	5
–	5	4	0
	2	1	5

4. (a)

	H	T	0
	7	5	2
–	3	3	5
	4	1	7

(b)

	H	T	0
		7	12
	5	8	2
–	2	2	5
	3	5	7

(c)

	H	T	0
		3	14
	4	4	4
–	1	3	5
	3	0	9

5. (a)

	H	T	0
	4	8	7
–	2	3	5
	2	5	2

(b)

	H	T	0
	9	6	9
–	5	2	1
	4	4	8

(c)

	H	T	0
	8	8	4
–	4	2	1
	4	6	3

Exercise-3.4

1. Number of trees in forest = 192
Number of trees fell down = – 98
Number of trees left in the forest = 94

2. Number of oranges bought by a fruit seller = 124
Number of oranges sold by a fruit seller = – 79
Number of oranges are left with fruit seller = 45

3. Number of red beads has Tejas = 167
Number of red beads has Ajay = – 89
Number of beads does Tejas = 78
have more than Ajay

4. Number of red roses and white roses = 182
Number of red roses = – 89
Number of white roses = 93

BRUSH UP YOUR CONCEPTS

–	5	7	8
	4	3	6
	1	4	2

–	9	6	8
	5	6	7
	4	0	1

2	3	5
	2	4
2	1	1

–	4	9	7
	2	0	2
	2	9	5

	7	0	7
–	1	7	8
	5	2	9

	7	8	4
–	3	9	6
	3	8	8

	4	6	1
–		6	0
	4	0	1

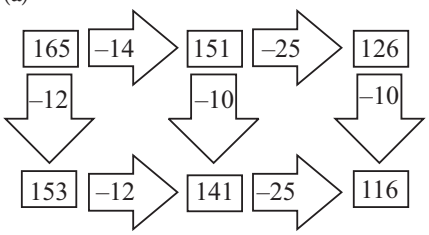
	6	4	9
–	4	0	9
	2	4	0

	5	9	3
–	2	1	8
	3	7	5

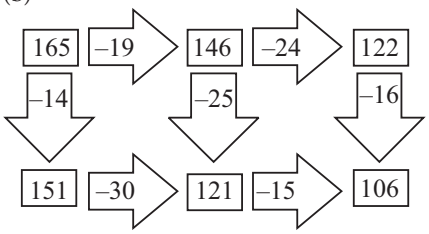
	7	9	5
	4	0	9
	3	8	6

Challenge :

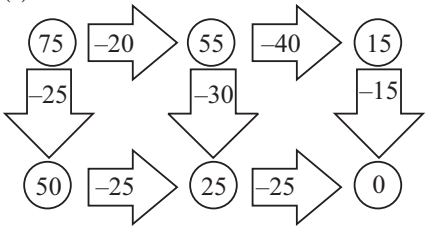
(a)



(b)



(c)



4. Multiplication

Exercise-4.1

1. (a) $6 \times 2 = \boxed{2} \times 6 = \boxed{12}$

(b) $\boxed{3} \times 7 = 7 \times 3 = \boxed{21}$

(c) $3 \times \boxed{6} = 6 \times 3 = \boxed{18}$

(d) $5 \times 6 = \boxed{6} \times 5 = \boxed{30}$

(e) $9 \times 7 = \boxed{7} \times 9 = \boxed{63}$

(f) $7 \times 8 = 8 \times \boxed{7} = \boxed{56}$

2. (a) $\boxed{45} \rightarrow \boxed{54} \rightarrow \boxed{63} \rightarrow \boxed{72} \rightarrow \boxed{81} \rightarrow \boxed{90} \rightarrow \boxed{99}$

(b) $\boxed{24} \rightarrow \boxed{30} \rightarrow \boxed{36} \rightarrow \boxed{42} \rightarrow \boxed{48} \rightarrow \boxed{54} \rightarrow \boxed{60}$

(c) $\boxed{56} \rightarrow \boxed{48} \rightarrow \boxed{40} \rightarrow \boxed{32} \rightarrow \boxed{24} \rightarrow \boxed{16} \rightarrow \boxed{8}$

(d) $\boxed{56} \rightarrow \boxed{49} \rightarrow \boxed{42} \rightarrow \boxed{35} \rightarrow \boxed{28} \rightarrow \boxed{21} \rightarrow \boxed{14}$

3.

	Multiplier	Multiplicand	Product
$9 \times 3 = \underline{27}$	9	3	27
$5 \times 7 = \underline{35}$	5	7	35
$6 \times 9 = \underline{54}$	6	9	54

Exercise-4.2

1. (a) $3 \times \boxed{5} = 5 \times \boxed{3} = \boxed{15}$

(b) $2 \times 9 = \boxed{9} \times 2 = \boxed{18}$

(c) $\boxed{4} \times 7 = \boxed{7} \times 4 = \boxed{28}$

(d) $5 \times \boxed{8} = 8 \times \boxed{5} = 40$

2. (a) $2 \times 3 = 6$ (b) $7 \times 2 = 14$
(c) $6 \times 5 = 30$ (d) $8 \times 5 = 40$
(e) $3 \times 8 = 24$ (f) $9 \times 4 = 36$

3. (a) $4 \times 6 = 24$ (b) $10 \times 3 = 30$
(c) $5 \times 8 = 40$ (d) $3 \times 7 = 21$
(e) $2 \times 9 = 18$

Exercise-4.3

1. (a)

	T	0
		2
×		5
	1	0

(b)

	T	0
	1	1
×		4
	4	4

(c)

	T	0
		6
×		7
	4	2

(d)

	T	0
	1	0
×		5
	5	0

(e)

	T	0
		8
×		7
	5	6

(f)

	T	0
		9
×		5
	4	5

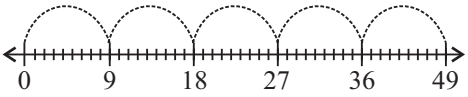
(g)

	T	0
	1	0
×		4
	4	0

(h)

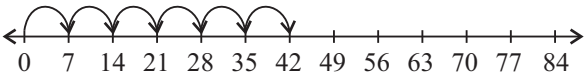
	T	0
		7
×		3
	2	1

2.

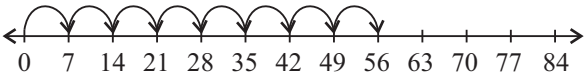


$9 \times 5 = 45$

3.



$7 \times 6 = 42$



$7 \times 8 = 56$

Exercise-4.4

1. Number of children ride in each car = 3

Number of cars = 3

Number of children are going to the teddy bear factory = 3 × 3 = 9

2. Number of children ride in each van number of vans = 5 × 3

Number of children are going to see the elephant seals = 15

3. Number of bangles in each pair = 2

Number of pair of bangles bought by Mina = 6

Number of bangles are there in all = 2 × 6 = 12

4. Number of wheels has a car = 4

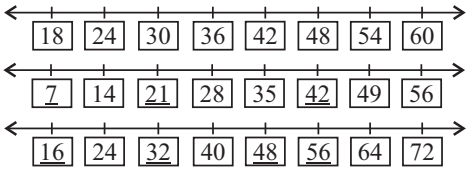
Number of cars = 5

Total number of wheels in 5 cars = 4 × 5 = 20.

BRUSH UP YOUR CONCEPTS

Observe the pattern

Fill in the blanks



Comprehension Math

Row 1:

×

T	0
9	
6	
5	4

×

T	0
8	
9	
7	2

×

T	0
8	
5	
4	0

×

T	0
8	
6	
4	8

×

T	0
8	
3	
2	4

Row 2:

	T	0
×		9
		3
	2	7

	T	0
×		9
		9
	8	1

	T	0
×		7
		8
	5	6

	T	0
×		2
		9
	1	8

	T	0
×		4
		8
	3	2

Row 3:

	T	0
×		9
		8
	7	2

	T	0
×		9
		0
		0

	T	0
×		2
		8
	1	6

	T	0
×		8
		8
	6	4

	T	0
×		6
		9
	5	4

Row 4:

	T	0
×		9
		4
	3	6

	T	0
×		9
		7
	6	3

	T	0
×		1
		9
		9

	T	0
×		8
		4
	3	2

	T	0
×		0
		8
		0

Row 5:

	T	0
×		3
		9
	2	7

	T	0
×		5
		8
	4	0

	T	0
×		7
		9
	6	3

	T	0
×		1
		8
		8

	T	0
×		5
		9
	4	5

(a) Since $4 \times 6 = 24$, So in row 1, product of 8×3 is same as product of 4×6.

(b) Since, $3 \times 6 = 18$, So, in row 2, product of 2×9 is same as product of 3×6.

(c) Since, $4 \times 4 = 16$, so in the row, 3 product of 2×8 is same as the product as 4×4.

(d) Since, $3 \times 3 = 9$, so in the row, 4 product of 1×9 same as the product of 3×3.

(e) Since, $4 \times 2 = 8$, so in the row, 5 product of 1×8 is same as the product of 4×2.

Incorrect Product Challenge

$8 \times 8 = 64 \rightarrow$ Correct, $6 \times 6 = 36 \rightarrow$ Correct

$9 \times 5 = 95 \rightarrow$ Incorrect, $7 \times 7 = 47 \rightarrow$ Incorrect

$8 \times 9 = 79 \rightarrow$ Incorrect, $9 \times 9 = 89 \rightarrow$ Incorrect

$9 \times 2 = 16 \rightarrow$ Incorrect, $8 \times 12 = 92 \rightarrow$ Incorrect

$8 \times 4 = 32 \rightarrow$ Correct, $3 \times 6 = 18 \rightarrow$ Correct

$7 \times 9 = 63 \rightarrow$ Correct, $9 \times 10 = 19 \rightarrow$ Incorrect

$9 \times 3 = 27 \rightarrow$ Correct, $6 \times 8 = 42 \rightarrow$ Incorrect

$7 \times 8 = 56 \rightarrow$ Correct, $6 \times 7 = 72 \rightarrow$ Incorrect

$6 \times 9 = 54 \rightarrow$ Correct, $3 \times 7 = 21 \rightarrow$ Correct

$8 \times 5 = 45 \rightarrow$ Incorrect, $7 \times 0 = 0 \rightarrow$ Correct

5. Equal Sharing

Exercise-5.1

1. (a) $\boxed{10} \div \boxed{2} = \boxed{5}$

(b) $\boxed{15} \div \boxed{5} = \boxed{3}$

(c) $\boxed{12} \div \boxed{3} = \boxed{4}$

2. (a) $18 \div 9$

18

-9

9

-9

0

Since, we have subtracted it two times.

So, $18 \div 9 = 2$.

(b) $44 \div 4$

44	4
− 4	− 4
40	0
− 4	
36	
− 4	
32	
− 4	
28	
− 4	
24	
− 4	
20	
− 4	
16	
− 4	
12	
− 4	
8	
− 4	

Since, We have substracted 11 times

So, $44 \div 4 = 11$

(c) $24 \div 6$

24
− 6
18
− 6
12
− 6
6
− 6
0

Since, We have substracted 4 times.

So, $24 \div 6 = 4$.

(d) $40 \div 10$

40
− 10
30
− 10
20
− 10
10
− 10
0

Sinc, We have substracted 4 times

So, $40 \div 10 = 4$.

3. (a) $\boxed{20} \div \boxed{5} = \boxed{4}$

(b) $\boxed{12} \div \boxed{3} = \boxed{4}$

Exercise-5.2

1. (a) $\boxed{4} \times \boxed{4} = \boxed{16}$ OR $\boxed{16} \div \boxed{4} = \boxed{4}$

(b) $\boxed{10} \times \boxed{3} = \boxed{30}$ OR $\boxed{30} \div \boxed{3} = \boxed{10}$

2. (a) $\boxed{4} \times \boxed{8} = \boxed{32}$

$\boxed{32} \div \boxed{8} = \boxed{4}$

(b) $\boxed{5} \times \boxed{3} = \boxed{15}$

$\boxed{15} \div \boxed{3} = \boxed{5}$

3. (a) $\boxed{4} \times \boxed{6} = \boxed{24} \rightarrow$

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

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

$\rightarrow \boxed{20} \div \boxed{2} = \boxed{10}$

(b) $\boxed{10} \times \boxed{2} = \boxed{20} \rightarrow$

$\rightarrow \boxed{20} \div \boxed{10} = \boxed{2}$

Exercise-5.3

1. (a) $9 \div 9 = \boxed{1}$ (b) $20 \div 10 = \boxed{2}$

(c) $24 \div 1 = \boxed{24}$

2. (a) $50 \div \boxed{10} = 5$ (b) $\boxed{75} \div 1 = 75$

(c) $93 \div \boxed{1} = 93$

3. (a)

$$2\overline{)14}\quad 7,\ -14,\ 0$$

(b)

$$5\overline{)25}\quad \boxed{5},\ -25,\ 0$$

(c)

$$8\overline{)24}\quad \boxed{3},\ -24,\ 0$$

(d)

$$6\overline{)42}\quad \boxed{7},\ -42,\ 0$$

4. (a) $20 \div 2 = \boxed{10}$ (b) $28 \div 7 = \boxed{4}$

(c) $72 \div 9 = \boxed{8}$

5. (a)
$$\begin{array}{r} 37 \\ 2\overline{)\,75} \\ -\,6 \\ \hline 15 \\ -\,14 \\ \hline 01 \end{array}$$

Quotient = 37, remainder = 01.

(b)
$$\begin{array}{r} 32 \\ 3\overline{)\,96} \\ -\,9 \\ \hline 6 \\ -\,6 \\ \hline 0 \end{array}$$

Quotient = 32, remainder = 0.

(c)
$$\begin{array}{r} 13 \\ 4\overline{)\,52} \\ -\,4 \\ \hline 12 \\ -\,12 \\ \hline 0 \end{array}$$

Quotient = 13, remainder = 0.

(d)
$$\begin{array}{r} 17 \\ 5\overline{)\,89} \\ -\,5 \\ \hline 39 \\ -\,35 \\ \hline 4 \end{array}$$

Quotient = 17, remainder = 4.

(e)
$$\begin{array}{r} 12 \\ 6\overline{)\,72} \\ -\,6 \\ \hline 12 \\ -\,12 \\ \hline 0 \end{array}$$

Quotient = 12, remainder = 0.

(f)
$$\begin{array}{r} 10 \\ 9\overline{)\,90} \\ -\,9 \\ \hline 0 \end{array}$$

Quotient = 10, remainder = 0.

Exercise-5.4

1. Number of friends = 4

Number of apples picked by 4 friends = 40

Number of apples will each one get = $40 \div 4 = 10$.

2. Number of pencils = 36

Number of children distributed equally = 9

Number of pencils get each child = $36 \div 9 = 4$.

3. Number of wooden panels required for fencing for square garden = 40

Number of equal sides in a square = 4

Number of panels required for = $40 \div 4$

One side of the square.

= 10

BRUSH UP YOUR CONCEPTS

$\boxed{6} \times 4 = 24$ $\quad$ $7 \times \boxed{3} = 12$

$24 \div \boxed{4} = 6$ $\quad$ $21 \div 3 = \boxed{7}$

Decode → Do, your self.

Comprehension math → Do, your self.

Match

	(A)		**(B)**
1.	$8 \div 2 = 4$	→	(c) $4 \times 2 = 8$
2.	$20 \div 4 = 5$	→	(d) $5 \times 4 = 20$
3.	$18 \div 2 = 9$	→	(f) $9 \times 2 = 18$
4.	$15 \div 3 = 5$	→	(a) $5 \times 3 = 15$
5.	$27 \div 3 = 9$	→	(b) $9 \times 3 = 15$
6.	$16 \div 2 = 8$	→	(e) $8 \times 2 = 16$

6. Money

Exercise-6.1

1. (a) ₹ 230.25 = Two hundred thirty rupees and twenty five paise.

(b) ₹ 767.75 = Seven hundred sixty seven and seventy five paise.

2. (a) Six hundred rupees and twenty paise = ₹ 600.20

(b) Five hundred rupees and seventy five paise = ₹ 500.75

3. (a) ₹ 5 = 500 P (b) ₹ 7 = 700 P

4. (a) 725 paise = ₹ 7.25

(b) 1185 paise = ₹ 11.85

5. (a) 275 P = ₹ 2 and 75P

(b) 870 P = ₹ 8 and 70 P

6. (a) ₹ 5 and 70 P = 500 + 70 = 570 P

(b) ₹ 9 and 40 P = 900 + 40 = 940 P

7. (a) The currency of India is rupees.

(b) The smaller unit of rupee is paise.

(c) The symbol of rupees is ₹.

Exercise-6.2

1. (a)

	₹	P
	223	18
+	342	30
	565	48

(b)

	₹	P
	256	27
+	538	90
	795	17

(c)

	₹	P
	535	60
+	29	42
	565	02

2. (a)

	₹	P
	64	35
–	9	24
	55	11

(b)

	₹	P
	438	20
–	215	45
	222	75

(c)

	₹	P
	256	27
–	123	84
	132	43

3. (a) ₹ 23.60
₹ 45.87
+ ₹ 76.98
₹ 146.45

(b) ₹ 876.12
– ₹ 788.89
₹ 87.23

Exercise-6.3

1. Amount of 100 watt bulb = ₹ 42.50
Amount of 120 watt bulb = ₹ 54.70
Amount of 150 watt bulb = + ₹ 78.50
Amount spent in three types = ₹ 175.70
bulb by shubham

2. Amount of 1 kg brinjal = ₹ 28.50
Amount of 1 kg lady finget = ₹ 16.50
Amount of 1 kg pumppin = + ₹ 22.50
Amount of 3 types vegetables = ₹ 67.50
spent by shubha

3. Cost of a pad = ₹ 365.50
Cost of a pen = + ₹ 548.75
The money spent for pad = ₹ 914.25
and pen by kavya

4. Cost of a doll from shop A = ₹ 667.50
Cost of a doll from shop B = – ₹ 555.50
Difference between the costs of
= ₹ 112.00
two dolls from two shops

BRUSH UP YOUR CONCEPTS

1. 1 rupee has 2 paise coins.

2. 2 rupees has either 2 1 rupee coin or 4 paise coins.

3. There are 3 50 paise coins in 1 rupee 50 paise.

4. There are 2 5 rupee coins in 10 rupees.

How much

756 rupees

Comprehension Math

Amount spent by Preeti for 5 items.

₹ 40.00

Answer Key 3 to 5

₹ 12.00
₹ 20.00
₹ 15.00
+ ₹ 5.00
₹ 92.00

Denomination Count

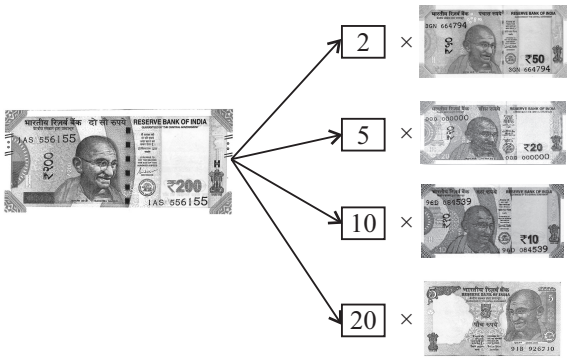
Denomination for pay amount ₹ 466 to purchase a book by Kavya

₹ 200 × 1 = ₹ 200 ₹ 100 × 2 = ₹ 200
₹ 50 × 1 = ₹ 50 ₹ 10 × 1 = ₹ 10
₹ 5 × 1 = ₹ 5 ₹ 1 × 1 = ₹ 1

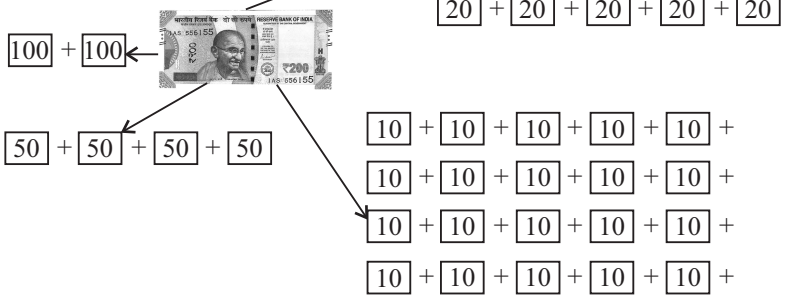
She given amount to shopkeeper = ₹ 500
Amount spent to purchase a book = – ₹ 466
Amount get back from shopkeeper = ₹ 34

Money challenge

1.



2.



7. Measurement

Exercise-7.1

1. Do, yourself,

2. (a) 197 m 5 cm = 197 × 100 + 5 = 19700 + 5
= 19705 cm

(b) 12 m 80 cm = 12 × 100 + 80 = 1200 + 80
= 1280 cm

(c) 4 m 75 cm = 4 × 100 + 75 = 400 + 75
= 475 cm

3. (a) 285 cm = $\frac{285}{100}$ = 2.85m

(b) 900 cm = $\frac{900}{100}$ = 9m

(c) 179 cm = $\frac{179}{100}$ = 1.79m

4. (a) 2 km 69m = 2 × 1000 + 69
= 2000 + 69
= 2069m.

(b) 52 km = 52 × 1000 = 52000m

(c) 18 km 210m = 18 × 1000 + 210
= 18000 + 210
= 18210m.

5. (a) 5111m = $\frac{5111}{1000}$ = 5.111 km

(b) 9210m = $\frac{9210}{1000}$ = 9.210 km

(c) $8372\text{m} = \frac{8372}{1000} = 8.372\text{ km}$

6. (a)

km	m
63	380
+ 14	175
77	555

(b)

cm
18
+ 34
52

7. (a)

m	cm
54	75
– 28	34
26	41

(b)

m	cm
87	89
– 63	60
24	29

8. (a)

	m	cm
	60	45
+	24	75
	85	20

(b)

	m	cm
	53	45
+	34	68
	88	13

(c)

	m	cm
	41	29
–	26	75
	14	54

(d)

	m	cm
	70	23
–	31	45
	38	78

Exercise-7.2

1. (a) 15 kg = 15 × 1000 = 15000 g

(b) 10 kg 76 g = 10 × 1000 + 76
= 10000 + 76
= 10076 g

(c) 5 kg + 543 g = 5 × 1000 + 543
= 5000 + 543
= 5543 g

2. (a) $6901\text{ g} = \frac{6901}{1000} = 6.901\text{ kg}$

(b) $7923\text{ g} = \frac{7923}{1000} = 7.923\text{ kg}$

(c) $4512\text{ g} = \frac{4512}{1000} = 4.512\text{ kg}$

3. (a) 13650 g = 13 kg 650 g

(b) 5468 g = 5 kg 468 g

(c) 74685 g = 74 kg 685 g

4. (a)

kg	g
6	380
+4	175
10	555

(b)

kg	g
1	000
0	345
1	345

5. (a)

kg	g
8	750
– 5	450
3	300

(b)

kg	g
8	289
– 3	560
4	729

6. (a)

	kg	g
	22	236
+	16	123
	38	359

(b)

	kg	g
	16	564
+	11	270
	27	834

(c)

	kg	g
	87	900
–	21	950
	65	950

(d)

	kg	g
	96	147
–	42	140
	54	007

Exercise-7.3

1. (a) 7l800 ml = 7 × 1000 + 800
= 7000 + 800
= 7800 ml

(b) 9l765 ml = 9 × 1000 + 765
= 9000 + 765
= 9765 ml

(c) 5l6 ml = 5 × 1000 + 6 = 5000 + 6
= 5006 ml

2. (a) 6594 ml

$= \frac{6594}{1000} = \frac{6000+594}{1000} = \frac{6000}{1000} + 594$

= 6l594 ml

(b) 4378 ml

$= \frac{4375}{1000} = \frac{4000+378}{1000} = \frac{4000}{1000} + 378$

= 4l378 ml

(c) 9876 ml

$= \frac{9876}{1000} = \frac{9000+876}{1000} = \frac{9000}{1000} + 876$

= 9l.876 ml

3. (a) ∵ 250 ml + 250 ml = 500 ml
and 1*l* = 1000 ml
∵ 1000 ml > 500 ml
∴ 1*l* $\boxed{>}$ 250 ml + 250 ml

(b) 75 ml $\boxed{<}$ 500 ml

(c) 1*l* $\boxed{<}$ 9999 ml
[∵ 1*l* = 1000 ml]

(d) ∵ 3*l*220 ml = 3 × 1000 + 220
= 3000 + 220
= 3220 ml
∵ 3220 ml = 3220 ml
∴ 3*l*220 ml $\boxed{=}$ 3220 ml

4. (a)

l	ml
1	000
+ 0	345
1	345

(b)

l	ml
63	380
+ 14	175
77	555

5. (a)

l	ml
28	750
– 8	450
20	300

(b)

l	ml
87	289
– 63	560
23	729

6. (a)

	l	ml
	25	830
+	42	126
	67	956

(b)

	l	ml
	13	645
+	54	143
	67	788

(c)

	l	ml
	29	910
–	21	500
	8	410

(d)

	l	ml
	63	560
–	34	230
	29	330

BRUSH UP YOUR CONCEPTS

1. cm **2.** m
3. km **4.** cm
5. m **6.** m

Long than |Shorter than| Same as

1. 6 km is <u>longer than</u> 600m.
[6 km = 6000 m]

2. 1 m is <u>longer than</u> 10cm. [1m = 100 cm]

3. 1000 m is <u>same as</u> 1 km.
[∵ 1 km = 1000 m]

4. 4 m is <u>shorter than</u> 500 cm.
[∵ 4m = 400 cm]

Units is Order

1. Ascending order : mm, cm, metre, km.

2. Descending order : km, metre, cm, mm.

Decide : L or ml.

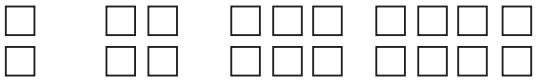
Liquid to be measured	Millilitres	Litres
1. Cough syrup	3	
2. Vinegar	3	
3. Water in tank		3
4. Water you bring to school.	3	3
5. Oil in kitchen		3
6. Petrol		3

8. Patterns

Exercise-8

1. (a) → ↓ → → ↓ → → → ↓ → → → → ↓ → → → →

(b) 

(c) 

(d) 

2. (a) 

(b) 

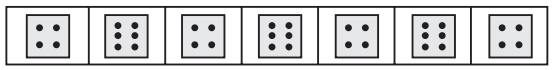
(c) 

(d) 

3. (a) 11, 17, 23, 29, 35 [41] [47] [53] (b) 25, 30, 35, 40, 45 [50] [55] [60]

4. (a) a, c, e, g, i [*k*] [*m*] [0] [Q]

(b) AaB BbC CcD DdE [EeF] [FfG] [GgH] [Hhi]

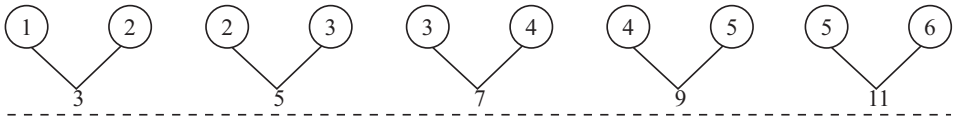
5. (a) 

(b) 

(c)

1	11	1	11	1	11	1	11	1	11

BRUSH UP YOUR CONCEPTS



16 14 12 10 8

12 [2] 10 10 [2] 8 8 [2] 6 6 [2] 4 4 [2] 2

14 12 10 8 6

Discover the pattern

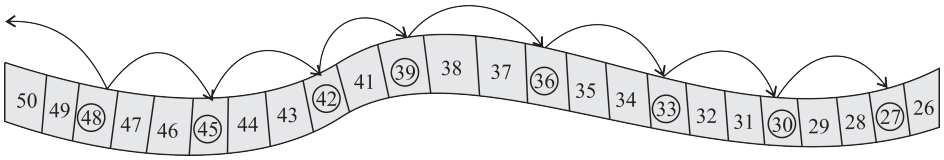
ABC	DEF	GHI	JKL	MNO	PQR	STU	VWX
18	20	22	24	26	28	30	32
46	44	42	40	38	36	34	32
9	15	21	27	33	39	45	51
30	27	24	21	18	15	12	9
15	25	35	45	55	65	75	85
11A	13B	15C	17D	19E	21F	23G	25H
7	14	21	28	35	42	49	56

Grids Challenge

16	20	24	28	32
14	18	22	26	30
12	16	20	24	28
10	14	18	22	26
8	12	16	20	24

23	26	29	32	35
33	36	39	42	45
43	46	49	52	55
53	56	59	62	65
63	66	69	72	75

Kitty's movement



9. Geometry

Exercise-9.1

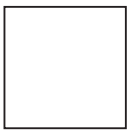
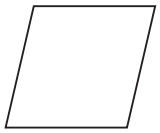
1. (a) A line segment has finite length whereas a line has infinile length.
(b) A point shows an exact location.
(c) A ray has no fixed length.

2. (a) A = 6 cm (b) B = 3 cm
(c) C = 2 cm

Exercise-9.2

1. (a) 4 lines segments (b) 4 line segments
(c) 4 line segments (d) 4 line segments

2. (a) Rectangle (b) Pentagon
(c) Square

3. (a)  (b) 

4. (a) JK → diameter (b) L → centre
(c) ST → Radius

Exercise-9.3

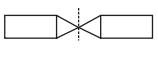
1. (a) A solid figure whose all the faces are of same size is cube.
(b) The corner where 2 or more edges meet is called a vertex.
(c) A sphere has a curved surface only.
(d) Cone has only one vertex.
(e) A solid figure that has two flat surfaces and a curved surface and roll is a cylinder.

2. Do, your self.

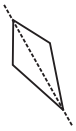
3. Statement
True/False
(a) All the edges of a cuboid are equal **False**
(b) There are twelve corners in a cuboid **False**
(c) A cylinder has two straight edges **False**
(d) There are two plane faces in a cylinder. **True**
(e) A cone has two corners. **False**

4. (a) Name of the shape cube.
Faces : 6 vertices 8 edges 12
(b) Name of the shape cuboid
Faces 6 Vertices 8 edge 12.

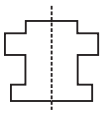
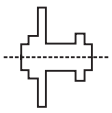
Exercise-9.4

1. (a)  (b) 

(c) 

2. (a)  (b) 

(c) 

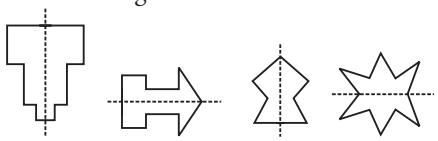
3. (a)  (b) 

BRUSH UP YOUR CONCEPTS

1. Draw Curved and straight lines!
Do yourself.

2. Drow the Line of Symmetry!

3. Moirror Image!



10. Fractions

Exercise-10.1

1. (a) W (b) W
(c) F (d) W
(e) F (f) F

2. (a) $\frac{6}{11}$, Numerator = $\boxed{6}$

Denominator = $\boxed{11}$

(b) $\frac{3}{5}$, Numerator = $\boxed{3}$

Denominator = $\boxed{5}$

(c) $\frac{4}{7}$, Numerator = $\boxed{4}$

Denominator = $\boxed{7}$

(d) $\frac{0}{8}$, Numerator = $\boxed{0}$

Denominator = $\boxed{8}$

3. (a) $\frac{3}{6}$ *ie* $\frac{1}{2}$ (b) $\frac{1}{2}$

(c) $\frac{2}{3}$ (d) $\frac{4}{6}$ *ie* $\frac{2}{3}$

4. Do, your self

5. (a) $\frac{7}{10}$; $\boxed{\text{Seven tenths}}$

(b) $\frac{8}{9}$; $\boxed{\text{Eight ninths}}$

(c) $\frac{2}{5}$; $\boxed{\text{Two fifths}}$

(d) $\frac{1}{6}$; $\boxed{\text{One sixths}}$

6. (a) One third; $\boxed{\frac{1}{3}}$

(b) Seven elevenths; $\boxed{\frac{7}{11}}$

(c) Three eights $\boxed{\frac{3}{8}}$

7. (a) $\frac{1}{4}$ (b) $\frac{3}{4}$

(c) $\frac{2}{4}$

Exercise-10.2

1. Do, yourself.

2. Do, yourself.

3. (a) yes (b) no
(c) no

4. Do, yourself.

BRUSH UP YOUR CONCEPTS

Counting by Half

1. 42, $41\frac{1}{2}$, 41, $40\frac{1}{2}$, $\underline{40}$, $39\frac{1}{2}$, 39, $38\frac{1}{2}$

2. 17, $17\frac{1}{2}$, 18, $18\frac{1}{2}$ 19, $19\frac{1}{2}$, 20, $20\frac{1}{2}$, $\underline{21}$

3. 28, $27\frac{1}{2}$, 27, $26\frac{1}{2}$, 26, $25\frac{1}{2}$, $\underline{25}$, $24\frac{1}{2}$

Comprehension Math

1. 4 **2.** $\frac{4}{7}$

3. 2 **4.** $\frac{2}{7}$

5. 1 **6.** $\frac{1}{7}$

Observe

1. $\frac{4}{10}$ **2.** $\frac{3}{10}$ **3.** $\frac{1}{10}$

Choose the correct one

1 and 3 are correct.

11. Time

Exercise-11.1

1. (a) 6 : 15 o' clock (b) 10 : 15 o' clock
(c) 10 : 45 o' clock (d) 7 : 30 o' clock
(e) 8 : 45 o' clock

2. (a) 6 : 35 o' clock (b) 11 : 55 o' clock
(c) 10 : 50 o' clock

Exercise-11.2

1. Do, yourself.

2. (a) There are 24 hours in each day.
(b) There are 60 minutes in every hour.
(c) There are 60 seconds in every minute.
(d) There are 12 months in a year.

3. Time : 2 : 00 o'clock

→ Time : 2 : 45 o'clock

Time Elapsed : 45 minutes

Exercise-11.3

1. (a) 6 weeks = 6 × 7 [∵ 1 week = 7 days]
= 42 days
(b) 9 weeks 3 days = 9 × 7 + 3
= 63 + 3 = 66 days
(c) 12 weeks 2 days = 12 × 7 + 2
= 84 + 2 = 86 days
(d) 7 months = 7 × 30 = 210 days
[∵ 1 months = 30 days]
(e) 8 months 20 days = 8 × 30 + 20
= 240 + 20
= 260 days
(f) 11 months 15 days = 11 × 30 + 15
= 330 + 15
= 345 days

2. ∵ 1 years = 12 months
(a) 6 years = 6 × 12 = 72 months
(b) 9 years = 9 × 12 = 108 months
(c) 7 years 6 months = 7 × 12 + 6
= 84 + 6
= 90 months
(d) 10 years 4 months = 10 × 12 + 4
= 120 + 4
= 142 months
(e) 12 years 2 months = 12 × 12 + 2
= 144 + 2
= 146 months
(f) 10 years 10 months = 10 × 12 + 10
= 120 + 10
= 130 months

3. ∵ 1 year = 365 days
(a) 3 years = 3 × 365 = 1095 days
(b) 5 years = 5 × 365 = 1825 days
(c) 8 years = 8 × 365 = 2920 days
(d) 1 years 26 days = 365 + 26 = 391 days
(e) 4 years 150 days = 4 × 365 + 150
= 1460 + 150
= 1610 days
(f) 9 years 200 days = 9 × 365 + 200
= 3285 + 200
= 3485 days

4. ∵ 1 day = 24 hours
(a) 11 days = 11 × 24 hours = 264 hours
(b) 15 days = 15 × 24 hours = 360 hours
(c) 30 days = 30 × 24 hours = 720 hours
(d) 9 days 5 hours = (9 × 24 + 5) hours
= (216 + 5) hours
= 221 hours
(e) 20 days 4 hours = (20 × 24 + 4) hours
= (480 + 4) hours
= 484 hours
(f) 17 days 4 hours = (17 × 24 + 6) hours
= (408 + 6) hours
= 414 hours.

BRUSH UP YOUR CONCEPTS

We have

Sunday = 1 Monday = 2, Tuesday = 3 Wednesday = 4, Thursday = 5, Friday = 6 and Saturday = 7.

1. If today is 6 means today is Friday
So, yesterday was Thursday.

2. If today is 7, means today is saturday
So, day before yesterday is Thursday.

3. It today is 1, means today is Sunday the day tomorrow ie next day of sunday is monday.

4. If today is 4 means to day is Wednesday, the day before yesterday is monday.

5. It today is 3, means today is tuesday the day after tomorrow will Thursday.

Elapsed Time

1. Divi started his work = 4 : 00' O' clock
The time taken by Devi = 4 hours
to finish her work
The time she has finished her work
= 4 : 00 O'clock + 4 hours
= 8 : 00' O' clock

2. The time at which train arrive = 6 : 00 O' clock
The train was delayed = 4 hours
The time train arrived
= 6 : 00 O' clock + 4 hours
= 10 : 00 O'clock

3. The time Anjali started her work = 11 : 00 O' clock
She finished her work 5 hours later
The time at which she finished her work
= 11 : 00 O'clock + 5 hours
= 16 : 00 O' clock
= (16 – 12) = 4 : 00 O' clock

4. The time at which Leela reached museum = 11 : 00
She was 3 hours later
So, the time she go home = 11 + 3
= 14 : 00 – 12 : 00
= 2 : 00 O' clock

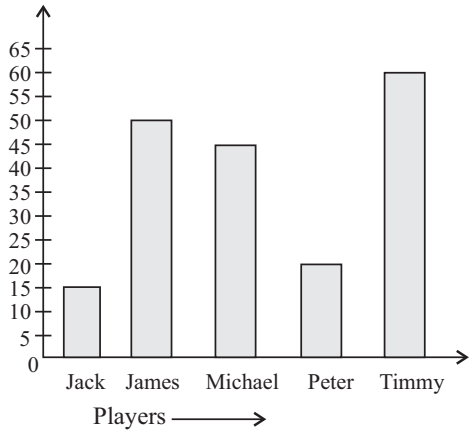
12. Data Handling

Exercise-12.1

1. (a) Descending order : 9, 7, 5, 4, 2, 1.
(b) 1
(c) Saturday
(d) 28

2. (a) 9 (b) Pasta
(c) 15 (d) Icecream
(e) 9

3. (a) Fruits and their quantity.
(b) 5 types of fruits are seen in the data.
(c) No. of straw berries are in the data = 16
No. of bananas are in the data = 10
No. of strawberries are more than bananas = 16 – 10 = 6
(d) Apples
(e) Total number of fruits
= 12 + 8 + 10 + 2 + 16
= 48



BRUSH UP YOUR CONCEPTS

1. Total number of chocolates sold on Thursday = 4 × 10 = 40

2. The sale was maximum on Monday
The sale on Monday = 5 × 10 = 50

3. Since, sale on Tuesday = 3 × 10 = 30
And sale of Friday = 3 × 10 = 30
So, sale on Tuesday = Sale on Friday.

4. The total number of chocolates sold in six days
= 5 × 10 + 3 × 10 + 2 × 10 + 4 × 10 + 3 × 10 + 10
= 50 + 30 + 20 + 40 + 30 + 10
= 180

5. The sale on saturday was minimum.

It is 10.

Pictograph

Do, yourself.

Test Yourself-1

Section A

1. (a) Place value of 2 = 200

And place value of 2 = 20

Sum of two place value of 2 = 200 + 20

= 220

2. (a) 589 is more than 256 = 589 – 256

= 333

3. (c) 8 S are 15 times in 120.

4. $\frac{1}{7}$ has 7 as denominator.

5. (b) The place value of 9 and 7 should be compared to determine the greater of the given numbers.

6. (d) Successor of 765 = 765 + 1 = 766

And the predecessor of 142 – 1 = 141

The sum of the required numbers

= 766 + 141 = 907

7. (a) Let the x gram grains should be added to make it 2 kg grains.

$\therefore$ 575 + x = 2 kg

$\Rightarrow$ x = 2 kg – 575g

= 2000g – 575g

[$\because$ 1 kg = 1000g]

= 1425g = 1000g + 425g

= 1 kg 425g

So, 1425g grains should be added to make it 2kg grains.

8. (c) Circle is not a tangram piece

9. (b) ✧ = 7 should be suitable key scale to represent the data given below in a pictograph.

10. (b) To pay a bill of ₹ 80, which three notes ₹ 50, ₹ 20, ₹ 10 can be given.

11. (d) ◇ represents 4 fruits in a pictograph, ◇◇◇◇◇ represent 5 × 4 = 20 fruits.

12. (c) We can write quarter past 9 as 9 : 15.

Section B

1. Number of glasses of 180 ml can be filled from a water dispenser whose total capacity is 9l

= 9000 ÷ 18

= 500 glasses

[$\because$ 1 L = 1000 ml]

[$\therefore$9L = 9000 ml]

2. $\because$ ☺ = 750 people

$\therefore$ ☺☺☺☺☺ = 750 × 5

= 3750 people.

So, 3750 people visited Nainital.

3. Cuboid solid shape will obtained by joining 3 cubes.

4. The minute hand moves 5 times round the clock in 5 hours.

5. We get 600 on rounding off number 567 to nearest 100.

6. $\because$ 745

− 468

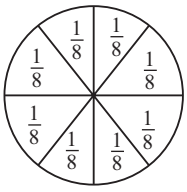
277

So, the difference between 745 and 468 is 277.

7.
$$11\overline{)\,56}\;\;5$$
$$-55$$
$$01$$

The remainder will be left 1 on dividing 56 by 11.

8. If a whole divided in 8 equal parts, then each part is called $\frac{1}{8}$ of the whole.



9. If last digit of the given number is 0, 2, 4, 6, 8, the number is called even number.
e.g. 12, 36, 104, 3468, 50000.
And if last digit of the given number is 1, 3, 5, 7, 9 is called odd number.
e.g. 23, 55, 121, 46391, 55067, 4149.

10. $\frac{6}{18}$ can be written as six eighteenth.

Section C

1. 834 = Eight hundred thirty four
834 = 800 + 30 + 4

2. Using the digits 2, 7, 4 and 9.
Smallest number = 247
Largest number = 974
Sum of the numbers obtained = 974 + 247 = 1221

3. Round of the numbers 765 and 743 to nearest 10 are:
765 = 770 and 743 = 740
Estimated their difference = 770 – 740 = 30.

4. Number of Candies in a each jar = 45
Number of candies in 22 jars = 45 × 22 = 990.

5. Number of vowels in Mathematis = 4
Number of total letters in Mathematis = 11
Fraction of number of vowels to the total number of letters = $\frac{4}{11}$

6. Total number of book in a library = 245
Number of English book in library = 139
Required fraction = $\frac{139}{245}$

7. Saving of Shobhit in every day = 45.50
Saving of shobhit in 30 days = 45.50 × 30 = ₹ 1365.

8. Asceding order of icecream = 100, 200, 300, 350.

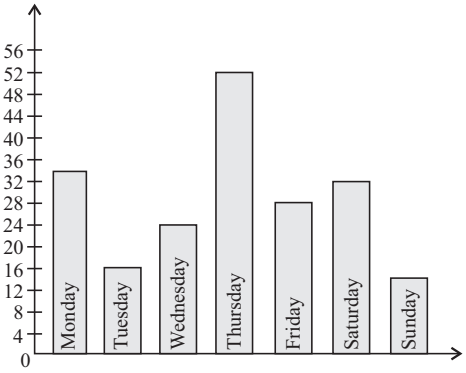
9. Vertices in cube = 8
Vertices in cone = 1
Vertice in sphere = 0
∴ Sum of vertices in cube, cone and sphere = 8 + 1 + 0 = 9.
Now,

$$5\overline{)\,9}\ \ 1$$
$$\underline{5}$$
$$4$$

Quotient = 1, remender = 4.

10. (a) PFTR (b) 1 6 7 8 4 5

11. The amount has Neha = ₹ 245
The amount has Ashish = ₹ 315
Sum of these amount = 245 + 315 = ₹ 560
Since, cost of aboard ₹ 599 is greater than ₹ 560.
So, they will be not buy it
The amount more they need = 599 – 560 = ₹ 39.



Test Yourself-2

1. (a) The smallest three digit number using the digits 2, 0, 4 and 6 is 204.

2. (a) Standard form of 500 + 70 + 8 = 578.

3. (d) Since, any number when divided by 0(zero), we get infinite (00) e.g. $\frac{5}{0} = \infty$
So, 0(zero) cannot be denominator of a fraction.

4. (b) Dice is the best example of a cube.

5. (a) Since, 2022 cannot be divided by 4.
So, number of days in February 2022 are 28.

6. (c)

L	ml
45	200
– 37	150
8	050

7. (c) Four thousand five hundred ten rupees = ₹4510.

8. (b) ∵  represents 5 students.

∴ To represent 30 students number of  will be drawn = 30 ÷ 5 = 6.

9. (b) Since, cone cube and cuboid are 3D solids but circle is a plance figure (i.e., 2D shape).

Section B

1. Since, 1 km = 1000 m.

So, We should 3 zero (0) to the right of a number while converting it from km to m.

2. In ones place, the face value and place value of any digit will be the same.

e.g In the number 367,

The face value of 7 = 7

and place value of 7 = 7.

3. The greatest 3 digit number = 999

The smallest 2 digit number 10 the difference = 999 – 10 = 989.

4. Number of months having 31 days = 7

Total number of months = 12

Required fraction = $\frac{7}{12}$

5. Largest number formed using the digits 3, 2 and 7 = 732

∴ 732 = Seven hundred thirty two.

6. Kilometre is used to measure the length of rivers.

7. The point where edges of a solid meet is known is vertex.

8. The data represented in the form of pictures is called pictograph.

9. There are 6 face in a cube.

Section C

1. Cost of 1 kg oranges = ₹ 80

Cost of 1 kg apples = ₹ 100

Rahana bought 2 kg oranges and 3 kg apples

So, amount paid by Rahana to the fruit seller

= 2 × 80 + 3 × 100

= 160 + 300

= ₹ 460.

2. The time at which went to school = 7 : 40

The time at which he reached to school = 8 : 10

The time taken by him to reach the school

hour	minutes
7	70
~~8~~	~~10~~
7	40
0	30

Hence, the time taken by him to reach the school = 30 minutes.

3. Since,  = 25 orders.

So, number of orders placed for cold coffee

= 4 × 25

= 100

Number of orders placed for Tea = 3 × 25

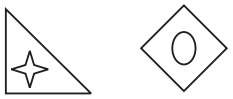
= 75

Number of orders placed for Sandwich

= 3 × 25 = 75

Number of orders placed for spring roll

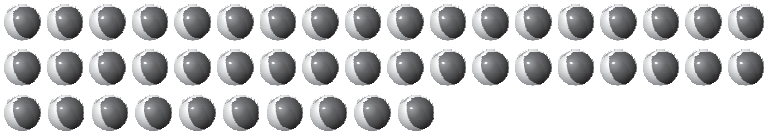
= 2 × 25 = 50

4. 

5. 12, 36, 108, 324 972

Pattern, New number = 3 × previous number.

6.

Toy	Number of Toys in a Shop	= 1 ball
Doll		
Teddy		
Toy trains		
Ball		

7. The length of yarn used for 1 sweater = 900 m

The length of yarn required for 25 sweater

= 900 × 25

= 22500 m

8. The product of two numbers = 492

One of the number = 12

Other number = $\frac{492}{12}$

= 41

9. The amount paid by Amit at the counter = ₹ 500

The amount used to purchase groceries

= – ₹ 267

The amount will be get back = ₹ 233

10. Even numbers : 568, 570, 572, 574, 576, 578, 580, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604.

Odd numbers : 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603.

11. The total number of pieces of a cube = 36

Number of pieces eaten by the students of class I

= One third of 36

= $\frac{1}{3} \times 36$

= 12

Number of pieces eaten by the students of Class II

= One fourth of 36

= $\frac{1}{4} \times 36$

= 9

Number of pieces are still left for the students of class III

= 36 – (12 + 9)

= 36 – 21

= 15.

❑❑

Mathematics - 4

1. Number Sense

Exercise-1.1

1. (a) 1446 (b) 2235 (c)2313 (d) 1080

2. (a) 3564 = Three thousand five hundred sixty four.

(b) 2006 = Two thousand six

(c) 7682 = Seven thousand six hundred eighty two

(d) 8413 = Eight thousand four hundred thirteen

(e) 1238 = One thousand two hundred thirty eight

3. (a) Six thousand four hundred fifty two = 6452

(b) Eight thousand seven hundred nine = 8709

(c) Nine thousand eight = 9008

(d) Five thousand seventy seven = 5077

(e) Three thousand thirty one = 3031

4.

1068	1069	1070	1071	1072	1073	1074	1075	1076	1077
4685	4686	4687	4688	4689	4690	4691	4692	4693	4694
8991	8992	8993	8994	8995	8996	8997	8998	8999	9000

5. (a) 7000, 400, 60, 4

(b) 5, 5000, 1, 0

(c) 600, 4000, 30, 4

(d) 9, 700, 400, 6000

(e) 7000, 400, 50, 7

6. (a) 5 1 0 8 → 8, 0, 100, 5000

(b) 6 4 0 2 → 2, 0, 400, 6000

(c) 3 9 5 4 → 4, 50, 900, 3000

(d) 4 5 3 0 → 0, 30, 500, 4000

(e) 1 5 4 3 → 3, 40, 500, 1000

(f) 2 7 4 3 → 3, 40, 700, 2000

7.

Digits	Place Value	Face Value
(a) 6502	6000	6
(b) 1234	200	2
(c) 4098	90	9
(d) 2430	2000	2
(e) 3807	7	7

Exercise-1.2

1. (a) 2738 (b) 3325

(c) 5844 (d) 7014

2. (a) 8485 = Eight thousand four hundred eighty five

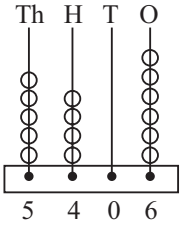
(b) 7918 = Seven thousand nine hundred eighteen

3. (a) 5951 = 5000 + 900 + 50 + 1

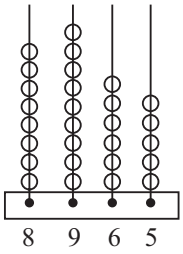
(b) 7255 = 7000 + 200 + 50 + 5

(c) 5285 = 5000 + 200 + 80 + 5

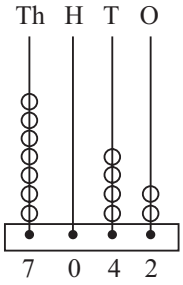
4. (a)



(b)



(c)



5. (a) 3029 = 3000 + 0 + 20 + 9

(b) 7305 = 7000 + 300 + 0 + 5

(c) 5757 = 5000 + 700 + 50 + 7

(d) 3029 = 3000 + 0 + 20 + 9

6. (a) 4000 + 500 + 20 + 6 = 4526

(b) 6000 + 800 + 60 + 4 = 6864

(c) 5000 + 600 + 30 + 5 = 5635

(d) 3000 + 700 + 50 + 3 = 3753

7. (a) 8 Thousands + 3 hundreds + 4 tens + 1 one = 8341

(b) 6 Thousands + 2 hundreds + 7 tens + 4 ones = 6274

(c) 5 Thousands + 6 hundreds + 8 tens + 7 ones = 5687

(d) 9 Thousands + 5 hundreds + 3 tens + 8 ones = 9538

Exercise-1.3

1. (a) 8773 $\boxed{>}$ 8737 (b) 5094 $\boxed{<}$ 5904

(c) 7163 $\boxed{<}$ 7613 (d) 5942 $\boxed{=}$ 5942

2. (a) 8310, 8031, 8013, 3018 $\boxed{D}$

(b) 1500, 1520, 1600, 1820 $\boxed{A}$

(c) 4790, 4700, 4699, 4599 $\boxed{D}$

(d) 917, 1536, 2568, 3584 $\boxed{A}$

3. (a) 2986, 3285, 3469, 4061

(b) 1125, 1289, 1892, 1928

(c) 9009, 9099, 9909, 9990

(d) 6143, 6314, 6341, 6431

4. (a) 5230, 4986, 4352, 2250

(b) 6776, 6767, 6741, 6414

(c) 7700, 7070, 7007, 7000

(d) 9652, 8945, 8756, 7485

5 (a) 5246, 5346, 5446, 5568

(b) 8354, 8365, 8345, 8356

(c) 4897, 4879, 4786, 4768

(d) 1126, 1162, 1062, 1026

6. (a) 5648 → $\boxed{5649}$ (b) 4569 → $\boxed{4570}$

(c) 3264 → $\boxed{3265}$ (d) 1236 → $\boxed{1237}$

(e) 5010 → $\boxed{5011}$

7. (a) $\boxed{1024}$ ←1025 (b) $\boxed{9000}$ ← 9001

(c) $\boxed{5009}$ ← 5010 (d) $\boxed{8998}$ ← 8999

(e) $\boxed{7489}$ ← 7490

8.

Predecessor	Number	Successor
(a) 2829	2830	2831
(b) 5496	5497	5498
(c) 6985	6986	6987
(d) 7611	7612	7613
(e) 3720	3721	3722
(f) 1044	1045	1046

Exercise-1.4

	Digits	Greatest number	Smallest number
1. (a)	8, 3, 2, 9	9832	2389
(b)	4, 0, 9, 7	9740	4079
(c)	6, 7, 0, 8	8760	6078
(d)	3, 4, 8, 6	8643	3468

2. (a) 5684; since, last digit (ones) is less than the number 5, so, round off to nearest 10 of the number 5684 is 5680

(b) 7942; since, last digit (ones) is less than 5, so, round off to nearest 10 of the number 7942 is 7940

(c) 6456; since, last digit (ones) is greater than 5, so, round off to nearest 10 of the number 6456 is 6460.

(d) 4278; since, last digit (ones) is greater than 5, so, round off to nearest 10 of number 4278 is 4280.

3. (a) 6895; since, last two digits are greater than 50 so, the round of nearest to 100 of the number 6895 is 6900.

(b) 4869; since, last two digits are greater than 50, so, the round off nearest to 100 of the number 4869 is 4900.

(c) 5717; since, last two digits are less than 50, so, the round off nearest to 100 of the number 5717 is 5700.

(d) 3612; Since, last two digits are less than 50, so, round off the nearest 100 of the number 3612 is 3600.

4. We know that if the last diget is 0, 2, 4, 6, 8 then the number is even and if the last digit is 1, 3, 5, 7, 9 them the number is odd.

(a) 4895 odd (b) 8614 even

(c) 5987 odd (d) 6012 even

(e) 7256 even

5. (a) 43 → Forty three (b) 36 → Thirty six

(c) 54 → Fifty four (d) 12 → Twelve

(e) 30 → Thirty

(f) 22 → Twenty two

6. (a) 50^{th} → Fiftieth

(b) 98^{th} → Ninety eighth

(c) 82^{nd} → Eighty second

(d) 53^{rd} → Fifty third

BRUSH UP YOUR CONCEPTS

Competency Based Questions

1. Greatest number 8421

2. 8241 [If 4 is in tens place]

3. Smallest number 1248

4. Greatest number is Red basket = 9652

Greatest number is blue basket = 8421

Difference = 1231

Achiever's Section

Required number = 9998

Challenge

1. The smallest 4 digit number usery the digits 3, 5, 9, 2 is 2359.

2. The largest 3 digit number is 953.

3. The smallest 4 digit number if 3 is in the thousands place = 3259.

4. The smallest 4 digit even number = 3592.

5. Largest two digit number if 5 is in the tensplace = 59.

2. An Introduction to Roman Numerals

Exercise-2

1. (a) Seven = VII

(b) Twenty two = XXII

(c) The letters V, L, D are never repeated.

(d) The three basic symbols of roman numberal are I, V and X.

2. (a) The numbers nine is written as IX

True

(b) The value of D is 500 True

(c) We can repeat X more than 3 times

False

3.

I	V	X	L	C	D	M
1	5	10	50	100	500	1000

4. (a) 39 = XXXIX (b) 24 = XXIV

(c) 19 = XIX (d) 5 = V

(e) 29 = XXIX (f) 37 = XXXVII

(g) 26 = XXVI (h) 10 = X

(i) 6 = VI (j) 32 = XXXII

5. (a) XIX = 19 (b) XXIV = 24

(c) XVII = 17 (d) XXVI = 26

6. (a) XXXX → 7 (b) VXV → 7

(c) XIX → 3 (d) XV → 3

7. (a) II, V, XVI, XVIII, XXI

(b) IV, VII, XII, XXVII, XXXI

(c) III, VIII, XIX, XXVI, XXXIII

(d) XIX, XXII, XXVIII, XXXII, XXXIX

8. (a) XXIX, XXIII, XXI, XX, X

(b) XXXV, XXVI, XIV, XI, III

(c) XXXV, XXXI, XXVIII, XXI, V

(d) XXX, XXIX, XIV, VI

9. (a)

Hindu Arabic	1	2	3	4	5	6	7	8	9	10
Roman	I	II	III	IV	V	VI	VII	VIII	IX	X

(b)

Hindu Arabic	11	12	13	14	15	16	17	18	19	20
Roman	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX

(c)

Hindu Arabic	21	22	23	24	25	26	27	28	29	30
Roman	XXI	XXII	XXIII	XXIV	XXV	XXVI	XXVII	XXVIII	XXIX	XXX

(d)

Hindu Arabic	31	32	33	34	35	36	37	38	39	40
Roman	XXXI	XXXII	XXX III	XXXIV	XXXV	XXXVI	XXXVII	XXX VIII	XXXIX	XL

BRUSH UP YOUR CONCEPTS

Competency Based Questions

1. Number of non flowering plants = 11
Number of flowering plants = 13
Total number of plants = 24 = XXIV.

2. XXIV **3.** IV

Achiever's Questions

1. 4 : 45 **2.** 10 : 30 **3.** 7 : 15

Challenge Questions

1. 15 = VVV (XV)
2. 24 = XXVI (XXIV)
3. 8 = IIX (VIII) **4.** 19 = XVIIII (XIX)
5. 25 = XXVX (XXV) **6.** 17 = IIIXX (XVII)

3. Addition

Exercise-3.1

1. (a)

	Th	H	T	0
	1	1		
		8	8	4
+		3	9	3
	1	2	7	7

(b)

	Th	H	T	0
	1	1		
		9	7	1
+		8	5	5
	1	8	2	6

(c)

	Th	H	T	0
	1	1		
		9	3	7
+		6	7	2
	1	6	0	9

2. (a)

	Th	H	T	0
			1	
		4	1	6
+		3	5	6
		7	7	2

(b)

	Th	H	T	0
		1	1	
		3	5	9
+		4	6	8
		8	2	7

(c)

	Th	H	T	0
	1		1	
		7	0	8
+		9	8	7
	1	6	9	5

(d)

	Th	H	T	0
	1			
		8	3	3
+		7	5	5
	1	5	8	8

(e)

	Th	H	T	0
	1	1		
		9	3	6
+		7	7	2
	1	7	0	8

(f)

	Th	H	T	0
	1	1	1	
		5	6	9
+		7	5	6
	1	3	2	5

Exercise-3.2

1. (a)

	Th	H	T	0
	1	1	1	
		9	1	5
		1	5	8
+		6	8	0
	1	7	5	3

(b)

	Th	H	T	0
	2	1	1	
		5	7	6
		7	5	9
+		9	6	3
	2	2	9	8

(c)

	Th	H	T	0
		1		
		1	9	0
		2	1	4
+		5	2	4
		9	2	8

2. (a) 636 + 763 + 214

	Th	H	T	0
		1	1	
		6	3	6
		7	6	3
+		2	1	4
	1	6	1	3

(b)

	Th	H	T	0
		1		
		4	7	3
		2	3	3
+		1	4	2
		8	4	8

(c)

	Th	H	T	0
	1		1	
		4	4	4
		8	0	0
+		4	2	9
	1	6	7	3

(d)

	Th	H	T	0
		1	1	
		5	5	5
		6	0	3
+		7	4	2
	1	9	0	0

Exercise-3.3

1. (a)

	Th	H	T	0
	1		1	
	3	9	1	6
+		6	3	4
	4	5	5	0

(b)

	Th	H	T	0
		1	1	
	7	2	8	2
+		2	5	8
	7	5	4	0

(c)

	Th	H	T	0
	1	1	1	
	2	6	7	9
+		9	5	5
	3	6	3	4

(d)

	Th	H	T	0
		1		
	2	2	5	2
+		3	9	7
	2	6	4	9

(e)

	Th	H	T	0
	1		1	
	3	3	6	9
+		8	1	2
	4	1	8	1

(f)

	Th	H	T	0
	1		1	
	2	7	5	8
+		8	0	4
	3	5	6	2

2. (a)

	Th	H	T	0
	1	2	1	
		6	5	6
		7	6	3
+		2	8	4
	1	7	0	3

(b)

	Th	H	T	0
	1	2		
		4	7	3
		2	9	3
+		3	4	2
	1	1	0	8

(c)

	Th	H	T	0
	1		1	
		4	5	4
		8	0	0
+		6	2	9
	1	8	8	3

(d)

	Th	H	T	0
	1	1	1	
		5	4	5
		6	9	3
		7	4	3
+	1	9	8	1

(e)

	Th	H	T	0
	1			
		2	3	3
		9	3	4
		3	3	2
+	1	4	9	9

(f)

	Th	H	T	0
	1			
		2	0	0
		8	8	8
		3	1	1
+	1	3	9	9

Exercise-3.4

1.

	Th	H	T	0
	6	0	4	5
+	1	8	2	3
	7	8	6	8

2.

	Th	H	T	0
	1	5	0	2
+	2	4	1	3
	3	9	1	5

3.

	Th	H	T	0
	4	3	6	2
+	3	6	2	4
	7	9	8	6

4.

	Th	H	T	0
	4	0	9	8
+	2	8	0	1
	6	8	9	9

5.

	Th	H	T	0
	3	2	5	3
+	5	5	1	2
	8	7	6	5

6.

	Th	H	T	0
	2	4	3	7
+	5	1	3	0
	7	5	6	7

Exercise-3.5

1.

	Th	H	T	0
			1	
	1	6	2	5
+	3	2	2	9
	4	8	5	4

2.

	Th	H	T	0
	1	1	1	
	6	7	4	5
+	2	2	8	9
	9	0	3	4

3.

	Th	H	T	0
	1		1	
	4	7	5	6
+	3	9	0	5
	8	6	6	1

4.

	Th	H	T	0
	6	0	8	6
+	1	2	0	1
	7	2	8	7

5.

	Th	H	T	0
	3	2	5	3
+	5	5	1	2
	8	7	6	5

6.

	Th	H	T	0
	1		1	
	3	6	4	8
+	1	5	3	2
	5	1	8	0

7.

	Th	H	T	0
		1	1	
	7	6	9	8
+	1	2	7	9
	8	9	7	7

8.

	Th	H	T	0
		1		
	4	2	6	4
+	2	0	9	5
	6	3	5	9

9.

	Th	H	T	0
		1	1	
	2	0	4	8
	3	5	1	1
+	4	0	4	5
	9	6	0	4

10.

	Th	H	T	0
			1	
	4	2	6	4
	2	0	1	5
+	1	5	0	2
	7	7	8	1

11.

	Th	H	T	0
		1		
	3	1	7	1
	2	2	0	4
+	4	3	6	2
	9	7	3	7

12.

	Th	H	T	0
	1	1	1	
	4	0	1	6
	1	6	5	3
+	2	3	9	8
	8	0	6	7

Exercise-3.6

1. Add down

+	2	8	9
	1	3	5
	4	2	4

Check Subtract from Sum

–	4	2	4
	1	3	5
	2	8	9

2. Add down

+	3	9	6
	4	3	7
	8	3	3

Check Subtract from Sum

–	8	3	3
	3	9	6
	4	3	7

3. Add down

+	9	8	5
	6	6	6
	16	5	1

Check Subtract from Sum

–	16	5	1
	6	6	6
	9	8	5

4. Add down

+	6	0	5
	8	9	3
	14	9	8

Check Subtract from Sum

–	14	9	8
	8	9	3
	6	0	5

Exercise-3.7

1. Number of Apple trees = 1265
Number of mango trees = 1125
Number of orange trees = + 2475
Total number of trees = 4865

2. In 1 day Neelam baked chocolate pastries = 1275
In 1 day she baked pineapple pastries = 1035
In 1 day she baked strawberry pastries = + 2750
In 1 day she baked total pastries = 5060

3. Distance travelled in june = 6544 km
More distance travelled in July than in June = + 542 km
The distance travelled in July = 7086 km

4. Number of boys = 3657
Number of girls = 5678
Number of staff + 657
Number of people in the school = 9992

5. Numbers of people were trekking in the mountains = 2458
Numbers of more people joined later + 4269
Numbers of people were trekking in all = 6727

6. Numbers of soft drink can collected by Riya = 5486
Numbers of news paper can collected by Sophia = 2309
Numbers of empty milk bottles can collected by Yuva + 1487
Numbers of items were collected by them = 9282

BRUSH UP YOUR CONCEPTS

Match the column

1. (III), **2.** (I), **3.** (IV), **4.** (II)

Competency Based Questions

1. The required 4 digit number = 7627.

2. The required 4 digits number = 2333

3. The required 4 digits number = 3123

4. The required 4 digit number = 1942

After finding the 4 digit number.

1. The sum of (1) and (2) = 7627 + 2333 = 9960

2. The sum of (3) and (4) = 5065

3. The sum of (1) and (4) = 7627 + 1942
= 9569

4. The sum of (3) and (2) = 3123 + 2333
= 5456

5. The sum of (1), (2), (3) and (4)
= 7627 + 2333 + 3123
= 1942
= 15025

Challenge

Do your self

4. Subtraction

Exercise-4.1

1. (a) 3088 – 936 = 2152

(b) 2774 – 209 = 2565

(c) 1926 – 917 = 1009

(d) 6941 – 40 = 6901

(e) 8634 – 621 = 8013

(f) 6927 – 146 = 6781

2. (a)

	H	T	0
		4	16
	9	5	6
–	1	0	8
	8	4	8

(b)

	H	T	0
	5	10	
	6	0	3
–	5	8	2
	0	2	1

(c)

	H	T	0
	5	15	12
	6	6	2
–	2	9	5
	3	6	7

(d)

	Th	H	T	0
	8	14	6	11
	9	4	7	1
–		8	6	6
	8	6	0	5

(e)

	Th	H	T	0
		3	10	
	8	4	0	9
–		1	9	8
	8	2	1	1

(f)

	Th	H	T	0
		1	9	12
	7	2	0	2
–		1	0	7
	7	0	9	5

(g)

	Th	H	T	0
	6	6	2	8
–		2	0	7
	6	4	2	1

(h)

	Th	H	T	0
	3	9	5	9
–		7	3	2
	3	2	2	7

(i)

	Th	H	T	0
	5	2	8	9
–		2	2	2
	5	0	6	7

3. (a) 5275 – 687 = 4588

(b) 7445 – 529 = 6916

(c) 3260 – 538 = 2722

(d) 9005 – 295 = 8710

(e) 2744 – 396 = 2348

(f) 4276 – 884 = 3392

(g) 9500 – 362 = 9138

(h) 5324 – 473 = 4851

Exercise-4.2

1. (a) 2691 – 291 = 2400

(b) 8798 – 786 = 8012

(c) 6898 – 896 = 6002

(d) 9479 – 424 = 9055

(e) 2539 – 109 = 2430

(f) 3389 – 349 = 3040

2. (a)

	Th	H	T	0
	7	2	9	6
–	4	1	4	4
	3	1	5	2

(b)

	Th	H	T	0
	8	9	3	1
–	3	7	3	0
	5	2	0	1

(c)

	Th	H	T	0
	8	9	9	18
	9	0	0	8
–	1	9	9	9
	7	0	0	9

(d)

	Th	H	T	0
	4	9	12	
	5	0	2	8
–	4	3	9	0
	0	6	3	8

(e)

	Th	H	T	0
	4	17	16	
	5	8	6	4
–	1	9	8	4
	3	8	8	0

(f)

	Th	H	T	0
	8	11	13	
	9	2	3	9
–	2	3	8	4
	6	8	5	5

(g)

	Th	H	T	0
	8	17		
	9	7	6	6
–	3	8	1	2
	5	9	5	4

(h)

	Th	H	T	0
	8	10	11	12
	9	1	2	2
–	8	8	7	5
	0	2	4	7

(i)

	Th	H	T	0
	4	3	6	7
–	1	1	2	2
	3	2	4	5

3. (a) 5500 – 1267 = 4233

(b) 4916 – 2334 = 2582

(b) 6568 – 1734 = 4834

(d) 5147 – 1065 = 4082

(e) 4856 – 1038 = 3818

(f) 7194 – 4905 = 2289

(g) 3629 – 1756 = 1873

(h) 4285 – 1302 = 2983

Exercise-4.3

1. The amount was sanctioned to purchase sports items = ₹ 9750
The amount was used to purchase outdoor sports items = ₹ 5918
Cost of indoor sport items = ₹ 3832

2. Weight of jowas grows by a farmer = 3290 kg
Weight of jowar use for his house hold use = – 1376 kg
Weight of jowar sold = 1914 kg

3. Number of men in a village = 4526
Number of women in a village = – 3214
Number of men more than Women in a village = 1312

4. Number of seeds collected by Ajay = 1207
Number of seeds collected by Vijay = – 897
Number of seeds Ajay more than Vijay = 310

5. The amount decided by an organization for a certain project = ₹ 2500
The amount collected through donations and other kinds of aid = – ₹ 1340
The amount more they need to reach their target = 1160

BRUSH UP YOUR CONCEPTS

Chess Board

Do, your self

1. (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)

2. (a)—(iii) (b)—(iv)
(c)—(i) (d)—(v)
(e)—(vi) (f)—(ii)

Consecutive Substraction

Do yourself.

5. Multiplication

Exercise-5.1

1. (a) Since, 6 × 4 = 24, 3 × 8 = 24,
5 × 9 = 45, 12 × 2 = 24, 4 × 6 = 24
So, odd one out is 5 × 9

(b) Since, 4 × 10 = 40, 5 × 8 = 40,
6 × 7 = 42, 20 × 2 = 40, 10 × 4 = 40
So, odd one out is 6 × 7.

(c) Since 9 × 10 = 90, 6 × 15 = 90,
18 × 5 = 90, 10 × 3 = 30, 30 × 3 = 90
So, odd one out is 30 × 3.

2. Do, yourself

3. (a) 3 × [9] = 27 (b) [4] × 5 = 20
(c) 5 × 7 = [35] (d) 4 × [4] = 16
(e) 9 × [4] = 36 (f) [8] × 2 = 16
(g) 4 × 6 = [24] (h) 9 × [8] = 72
(i) [2] × 6 = 12

4. (a) 12 × 0 = [0] (b) 12 × 4 = [48]
(c) 12 × 7 = [84] (d) 12 × 10 = [120]
(e) 12 × 1 = [12] (f) 12 × 5 = [60]
(g) 12 × 8 = [96] (h) 12 × 3 = [36]
(i) 12 × 2 = [24] (j) 12 × 6 = [72]
(k) 12 × 9 = [108]

5. (a) 11 × 2 < 15 × 6 (b) 15 × 9 > 14 × 8
(c) 13 × 8 < 14 × 8 (d) 13 × 7 > 12 × 5
(e) 4 × 11 = 11 × 4 (f) 11 × 8 > 13 × 6

Exercise-5.2

1. (a)

H	T	0
	3	
	1	5
	×	7
1	0	5

(b)

H	T	0
	2	
	3	3
	×	9
2	9	7

(c)

H	T	0
	1	
	3	4
	×	4
1	3	6

(d)

H	T	0
	8	2
	×	2
1	6	4

(e)

H	T	0
	7	
	4	9
	×	8
3	9	2

(f)

H	T	0
	2	
	8	5
	×	5
4	2	5

(g)

H	T	0
	5	
	1	9
	×	6
1	1	4

(h)

H	T	0
	2	
	2	9
	×	3
	8	7

2. (a) 312 × 100 = 31200

(b) 64 × 100 = 6400

(c) 89 × 10 = 890

(d) 187 × 10 = 1870

(e) 45 × 10 = 450

(f) 892 × 1000 = 892000

3. (a) 7 × 20 = 140

(b) 82 × 10 = 820

(c) 29 × 300 = 8700

(d) 6 × 300 = 1800

(e) 14 × 100 = 1400

(f) 76 × 40 = 3040

4. (a)

Th	H	T	O
		5	6
	×	4	1
		5	6
2	2	4	×
2	2	9	6

(b)

Th	H	T	O
		2	8
	×	5	4
	1	1	2
1	4	0	×
1	5	1	2

(c)

Th	H	T	O
		7	5
	×	2	8
	6	0	0
1	5	0	×
2	1	0	0

(d)

Th	H	T	O
		6	2
	×	8	4
	2	4	8
4	9	6	×
5	2	0	8

Exercise-5.3

1. Number of pencils in a box = 58
Number of pencils in 8 boxes = 58
× 8
= 464

2. Number of guavas in a box = 76
Number of guavas in 45 boxes = 76
× 45
380
+ 304×
3420

3. 1 box contains sachets = 89
47 boxes contain sachets = 89
× 47
623
+ 356×
4183

4. In 1 day chocolates makes = 65
In 48 days will it make chocolates = 65
× 48
520
+ 260×
3120

5. Each take has tadpoles = 46
15 tanks has tadpoles = 46
× 15
230
+ 46×
690

6. Each packet has stickers = 548

7 packets has stickers = 548 × 7 = 3836

BRUSH UP YOUR CONCEPTS

Solve Tables : Do, yourself

Multiplication Crossward

Do, yourself.

6. Division

Exercise-6.1

1. (a) $40 \div \boxed{1} = 40$ (b) $9 \div \boxed{9} = 1$

(c) $28 \div \boxed{1} = 28$ (d) $15 \div \boxed{15} = 1$

(e) $492 \div \boxed{1} = 492$ (f) $134 \div 134 = \boxed{1}$

2. Multiplication Facts Division :

(a) $8 \times 3 = 24$ (b) $6 \times 8 = 48$

(c) $5 \times 9 = 45$ (d) $4 \times 8 = 32$

(e) $10 \times 6 = 60$

3. (a) $8 \times 7 = \boxed{56}$ → $\boxed{56} \div \boxed{7} = \boxed{8}$, $\boxed{56} \div \boxed{8} = \boxed{7}$

(b) $6 \times 9 = \boxed{54}$ → $\boxed{54} \div \boxed{6} = \boxed{9}$, $\boxed{54} \div \boxed{9} = \boxed{6}$

(c) $4 \times 5 = \boxed{20}$ → $\boxed{20} \div \boxed{4} = \boxed{5}$, $\boxed{20} \div \boxed{5} = \boxed{4}$

(d) $\boxed{9} \times \boxed{8} = \boxed{72}$ → $\boxed{72} \div \boxed{8} = \boxed{9}$, $\boxed{72} \div \boxed{9} = 8$

4. (a) $9 \div 9 = \boxed{1}$ (b) $462 \div 1 = \boxed{462}$

(c) $364 \div 364 = \boxed{1}$ (d) $0 \div 6773 = \boxed{0}$

(e) $718 \div 1 = 718$ (f) $25 \div 25 = \boxed{1}$

Exercise-6.2

1. (a) $24 \div 4 = 6$ (b) $60 \div 6 = 10$

(c) $36 \div 6 = 6$ (d) $64 \div 8 = 8$

(e) $48 \div 6 = 8$ (f) $18 \div 2 = 9$

(g) $35 \div 7 = 5$ (h) $40 \div 5 = 8$

2. (a) $92 \div 4 = 23$

(b) $66 \div 2 = 33$

(c) $38 \div 3$; Q = 12, R = 2

(d) $46 \div 2 = 23$

(e) $96 \div 8 = 12$

(f) $84 \div 6 = 14$

(g) $87 \div 5$, Q = 17, R = 2

(h) $75 \div 2$; Q = 37, R = 1

3. (a)
$$\begin{array}{r} 263 \\ 2\overline{)\,526} \\ -4 \\ \hline 12 \\ -12 \\ \hline 06 \\ -06 \\ \hline 0 \end{array}$$

So, Q = 263, R = 0

(b)
$$\begin{array}{r} 64 \\ 4\overline{)\,256} \\ -24 \\ \hline 16 \\ -16 \\ \hline 0 \end{array}$$

So, Q = 64, R = 0

(c)
$$\begin{array}{r} 101 \\ 8\overline{)\,809} \\ -8 \\ \hline 09 \\ -8 \\ \hline 1 \end{array}$$

So, Q = 101, R = 1

(d)
$$\begin{array}{r} 61 \\ 3\overline{)\,184} \\ -18 \\ \hline 4 \\ -3 \\ \hline 1 \end{array}$$

So, Q = 61, R = 1

(e)
$$\begin{array}{r} 139 \\ 7\overline{)\,976} \\ -7 \\ \hline 27 \\ -21 \\ \hline 66 \\ -63 \\ \hline 3 \end{array}$$

So, Q = 139, R = 3

4. (a)
$$\begin{array}{r} 121 \\ 6\overline{)\,728} \\ -6 \\ \hline 12 \\ -12 \\ \hline 8 \\ -6 \\ \hline 2 \end{array}$$

Q = 121, R = 2, divisor = 6, dividend = 728

We know that

Dividend = divisor × quotient + remainder

$\Rightarrow$ 728 = 6 × 121 + 2

$\Rightarrow$ 728 = 728

□ LHS = RHS **Verified**

(b)
$$\begin{array}{r} 14 \\ 4\overline{)\,57} \\ -4 \\ \hline 17 \\ -16 \\ \hline 1 \end{array}$$

So, dividend = 57, divisor = 4, quotient = 14 and remainder = 1

We know that

Dividend = Divisor × quotient + remainder

$\Rightarrow$ 57 = 4 × 14 + 1

$\Rightarrow$ 57 = 57

□ LHS = RHS Verified.

(c)
$$\begin{array}{r} 115 \\ 8\overline{)\,920} \\ -8 \\ \hline 12 \\ -8 \\ \hline 40 \\ -40 \\ \hline 0 \end{array}$$

So, dividend = 920, divisor = 8, quotient = 115 and remainder = 0

We know that

Dividend = divisor × quotient + remainder

$\Rightarrow$ 920 = 8 × 115 + 0

$\Rightarrow$ 920 = 920

□ LHS = RHS Verified

(d)
$$\begin{array}{r} 52 \\ 6\overline{)\,315} \\ -30 \\ \hline 15 \\ -12 \\ \hline 3 \end{array}$$

So, dividend = 315, divisor = 6, quotient = 52 and remainder

We know that

Dividend = divisor + quotient + remainder

$\Rightarrow$ 315 = 6 × 52 + 3

$\Rightarrow$ 315 = 312 + 3

$\Rightarrow$ 315 = 315

□ LHS = RHS Verified

(e)
$$\begin{array}{r} 107 \\ 4\overline{)\,429} \\ -4 \\ \hline 29 \\ -28 \\ \hline 1 \end{array}$$

So, dividend = 429, divisor = 4, quotient = 107, and remainder = 1

We know that

Dividend = divisor + quotient + remainder

$\Rightarrow$ $429 = 4 \times 107 + 1$

$\Rightarrow$ $429 = 428 + 1$

$\Rightarrow$ $429 = 429$

□ LHS = RHS Verified

(f)
$$\begin{array}{r} 41 \\ 5\overline{)\,208} \\ -20 \\ \hline 8 \\ -5 \\ \hline 3 \end{array}$$

So, dividend = 208, divisor = 5, quotient = 41, and remainder = 3

We know that

Dividend = divisor + quotient + remainder

$\Rightarrow$ $208 = 6 \times 52 + 3$

$\Rightarrow$ $208 = 205 + 3$

$\Rightarrow$ $208 = 208$

□ LHS = RHS Verified

(g)
$$\begin{array}{r} 173 \\ 3\overline{)\,521} \\ -3 \\ \hline 22 \\ -21 \\ \hline 11 \\ -9 \\ \hline 2 \end{array}$$

So, dividend = 521, divisor = 3, quotient = 173, and remainder = 2

We know that

Dividend = divisor + quotient + remainder

$\Rightarrow$ $521 = 3 \times 173 + 2$

$\Rightarrow$ $521 = 519 + 2$

$\Rightarrow$ $521 = 521$

□ LHS = RHS Verified

(h)
$$\begin{array}{r} 139 \\ 7\overline{)\,973} \\ -7 \\ \hline 27 \\ -21 \\ \hline 63 \\ -63 \\ \hline 0 \end{array}$$

So, dividend = 973, divisor = 7, quotient = 139, and remainder = 0

We know that

Dividend = divisor + quotient + remainder

$\Rightarrow$ $973 = 7 \times 139 + 0$

$\Rightarrow$ $973 = 973$

□ LHS = RHS Verified

Exercise-6.3

1. Total number of books = 84

Number of books read in 1 day = 6

Number of days will read completely = $84 \div 6 = 14$ days

2. Number of persons carried by 8 auto rick haws = 56

Number of persons carried by each auto rick haws = $56 \div 8 = 7$

3. Number of people accommodate by a cab = 4

Number of cabs needed to accommodate 32 people = $32 \div 4 = 8$ cabs

4. Number of apples = 248

Number of children = 8

$\because$ 248 apples were distributed among 8 children so, each get

$\therefore$ $248 \div 8 = 31$ apples.

5. Number of story books shared equally = 749

Number of friends = 7

Number of story books get by each friend = $749 \div 7 = 107$ story books

BRUSH UP YOUR CONCEPTS

Missing Dividend

1. 160 ÷ 4 = 40 **2.** 90 ÷ 3 = 30

3. 300 ÷ 3 = 100 **4.** 420 ÷ 7 = 60

5. 300 ÷ 5 = 60 **6.** 80 ÷ 2 = 40

Achiever's Section

×	A	B	C
3	21	D	18
5	E	15	30
10	70	F	G

A = 7 B = 3 C = 6

D = 9 E = 35 F = 30

G = 60

Decode The math tool !

1. 8 ÷ 2 = 4

2. 10 ÷ 5 = 2

3. 24 ÷ 4 = 6

4. 50 ÷ 10 = 5

5. 72 ÷ 9 = 8

6. 32 ÷ 10 = 3 remainder 2

7. 48 ÷ 7 = 6, remainder 6

8. 29 ÷ 3 = 9, remainder 2

9. 65 ÷ 8 = 8, remainder 1

10. 92 ÷ 6 = 15 remainder 2

I	8	E	1
L	3 remainder 2	N	7 remainder 6
W	7	I	6 remainder 6
S	8 remainder 1	E	2
U	6	O	11
A	9	P	15 remainder 2
B	15 remainder 3	X	2 remainder 5
L	4	C	10
D	2 remainder 3	R	5
T	9 remainder 2		

M	U	L	T	I	P	L	I	E	R	S
	3	1	8	5	10	6	7	2	4	9

Competency Based Questions

Do, yourself

Challenge!

Sport the given table and answer the following questions

Sport/Activity	Number of children taking part
Gymnatics	3 per group
Relay race	4 per group
Football	5 per group
Ice hockey	6 per team
Base ball	9 per team

1. Number of teams can be formed for football = 20 ÷ 5 = 4

2. Number of teams can be formed for base ball = 36 ÷ 9 = 4

3. Number of teams can be formed for ice hockey = 42 ÷ 6 = 7

4. Number of teams can be formed for relay race = 16 ÷ 4 = 4

5. Number of teams can be formed for gymnastics = 27 ÷ 3 = 9

7. Money

Exercise-7.1

1. ₹ 1 = 100 paise

(a) 182 rupees 76 paise

= (182 × 100 + 76) paise

= (18200 + 76) paise

= 18276 paise

(b) 911 rupees 50 paise

= (911 × 100 + 50) paise

= (91100 + 50) paise

= 91150 paise

(c) 624 rupees 65 paise

= (624 × 100 + 65) paise

= (62400 + 65) paise

= 62465 paise

(d) 543 rupees 35 paise
= (543 × 100 + 35) paise
= (54300 + 35) paise
= 54335 paise

(e) 743 rupees 44 paise
= (743 × 100 + 44) paise
= (74300 + 44) paise
= 74344 paise

(f) 875 rupees 28 paise
= (875 × 100 + 28) paise
= (87500 + 28) paise
= 87528 paise

2. (a) 9648 paise = $\frac{9648}{100}$

= $\frac{9600}{100}$ rupees + 48 paise

= 96 rupees 48 paise

(b) 876 paise = $\frac{876}{100} = \frac{800}{100}$ rupees

+ 76 paise

= 8 rupees 76 paise

$\because$ 100 paise = ₹ 1

(c) 543 paise = ₹ $\frac{543}{100} = \frac{500}{100}$ rupees

+ 43 paise

= 5 rupees 43 paise

(d) 6120 paise = $\frac{6120}{100} = \frac{6100}{100}$ rupees

+ 20 paise

= 61 rupees 20 paise

(e) 287 paise = $\frac{287}{100} = \frac{200}{100}$ rupees

+ 87 paise

= 2 rupees 87 paise

(f) 1240 paise = $\frac{1240}{100} = \frac{1200}{100}$ rupees

+ 40 paise

= 12 rupees 40 paise

(g) 428 paise = $\frac{428}{100} = \frac{400}{100}$ rupees

+ 28 paise

= 4 rupees 28 paise

(h) 7896 paise = $\frac{7896}{100} = \frac{7800}{100}$ rupees

+ 96 paise

= 78 rupees 96 paise.

3. $\because$ ₹ 1 = 100 paise

(a) ₹ 789.09 = Seven hundred eighty nine rupees and nine paise

(b) ₹ 486.42 = Four hundred eighty six rupees and forty two paise.

(c) ₹ 89.12 = Eighty nine rupees and twelve paise

(d) ₹ 607.37 = Six hundred seven rupees and thirty seven paise.

4. (a) One hundred twelve rupees and ninety four paise = ₹ 112.94

(b) Three hundred forty rupees and thirty eight paise = ₹ 340.38

(c) Seven hundred rupees and twenty six paise = ₹ 700.26

(d) Four hundred sixty rupees and twelve paise = ₹ 460.12

5. (a)
₹ 120 . 56
₹ 458 . 24
+ ₹ 78 . 38
₹ 657 . 18

(d)
₹ 7 . 05
₹ 46 . 78
₹ 897 . 42
₹ 951 . 25

(c)
₹ 569 . 00
₹ 79 . 00
+ ₹ 769. 06
₹ 1417. 06

(d)
₹ 45
₹ 79
+ ₹ 68
₹ 192

6. (a)
₹ 985.30
– ₹ 456.25
₹ 529.05

(b)
₹ 519.68
– ₹ 102.35
₹ 417.33

(c)
₹ 100.78
– ₹ 56.65
₹ 44.13

(d)
₹ 200
– ₹ 168
₹ 32

7. (a) 8) 612.80 (76.60
− 56
52
− 48
48
48
0
∴ ₹ 612.80 ÷ 8 = ₹ 76.60.

(b) 7) 144.16 (20.594
− 14
41
− 35
66
− 63
30
− 28
2
∴ ₹ 144.16 ÷ 7 = ₹ 20.594 = ₹ 20.59.

(c) 10) 1056.60 (105.66
− 10
56
− 50
66
− 60
60
− 60
0
∴ ₹ 1056.60 ÷ 10 = ₹ 105.66.

(d) 5) 175.05 (35.01
15
25
− 25
05
∴ ₹ 175.05 ÷ 5 = ₹ 35.01.

8. ∵ 1 ₹ = 100.

(a)

₹	P
31	10
×	8
₹ 248	80 paise

∴ ₹ 248 + 80 paise = ₹ 248 + ₹ $\frac{80}{100}$
= ₹ 248 + ₹ .8
= ₹ 248.8

(b)

₹	P
26	15
×	6
₹ 156	90 paise

∴ ₹ 15 69 paise = ₹ 156 + ₹ $\frac{90}{100}$
= ₹ 156 + ₹ 0.90
= ₹ 156.9

(c)

₹	2P
9	24
×	7
63	168

∴ ₹ 63 168 paise = ₹ 63 + ₹ $\frac{168}{100}$
= ₹ 63 + ₹ 1.68
= ₹ 64.68

(d)

₹	P
12	30
×	9
108	270

∴ ₹ 108 270 paise = ₹ 108 + ₹ $\frac{270}{100}$
= ₹ 108 + ₹ 2.70
= ₹ 110.70 paise.

9. ∵ 100 paise = ₹ 1

(a)

₹	P
438	20
− 215	45
222	75

= ₹ 222.75

(b)

₹	P
535	60
29	42
+ 8	27
572	129

= ₹ 573.29

(c)

₹	P
256	27
− 123	84
132	43

(d)

₹	P
712	50
429	75
245	38
1387 .	63

10. ∵ The salary of 12 workers is ₹ 3732

∴ The salary of 1 worker is ₹ $\frac{3732}{12}$

= ₹ 311

∴ The salary of 5 workers is 311 × 5
= ₹ 1555.

Exercise-7.2

1. The price of 5 balls = ₹ 50

The price of 1 ball $= \frac{₹\ 50}{5}$

$= ₹\ 10$

2. The price of 8 notebooks = ₹ 72

The price of 1 notebook $= \frac{₹\ 72}{8}$

$= ₹\ 9$

3. The cost of 9 litres petrol = ₹ 378

The cost of 1 litre petrol $= \frac{₹\ 378}{9}$

$= ₹\ 42$

The cost of 15 litres pertol $= ₹\ 42 \times 15$

$= ₹\ 630$

4. Mika in 16 hours can walk = 128 km

Mika in 1 hour can walk $= \frac{128}{16}$

$= 8$ km

Mika in 3 hours can walk $= 8 \times 3$

$= 24$ km.

BRUSH UP YOUR CONCEPTS

Comprehension math

Chaat stall

Prices
Per Plate
Pani Puri ₹ 15
PAPRI-CHAAT ₹ 25
ALOOTIKKA ₹ 25
PAOBHAJI ₹ 30
CHANA BHATURA ₹ 35
VEGP

Shahi Dhaba

Prices Per Plate
DAL MAKHANI ₹ 35
SHAHIPANNER ₹ 60
DUMALLO ₹ 27
VEGPULAO ₹ 25
TANDOORI ROTI ₹ 5

1. Wee need amount to pay for 2 plates of Paobhaj = ₹ 30 × 2 = ₹ 60.

2. We need amount to pay for 2 Tandoori Roti and 1 plate of Dum aloo in all = ₹ 5 × 2 + ₹ 27 = ₹ 37.

3. 1 plate of chana Bhatura more than 1 plate of Veg pulao = ₹ 35 – ₹ 25 = ₹ 10.

4.

Price of chaat stall	Price of shahi Dhaba
₹ 15 + ₹ 25 + ₹ 25 + ₹ 30 + ₹ 35	₹ 35 + ₹ 60 + ₹ 27 + ₹ 25 + ₹ 5
= ₹ 130	₹ 152

Difference between price of shate Dhaba and Price of chaat stall.

= 152 – 130

= ₹ 22

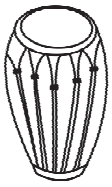
Cash Bill

Shahi Dhaba, New Delhi

Bill no 152 **Date 8/2/24**

S.No	Items	Quantity	Rate (in ₹)	Amount (in ₹)
1.	Dal makhni	2	35.00	70
2.	Shahi Panner	3	60.00	180
3.	Dum Aloo	1	27.00	27
4.	Tandoori Roti	8	5	40
5.	Veg Pulao	2	25.00	50
	Total			₹367


₹ 132


₹ 205


₹ 4


₹ 245


₹ 63

1. 20 + 245 = 265

2. Toffee

3. Cost of 2 Vases = 205 × 2 = 410.

Challenge

Will for the itoms purchased using the given rate chart

Rate chart in a stationery shop

	Items	**Quantity**	**Rate (in ₹)**	**Amount (in ₹)**
1.	Pen	6	₹ 2.00	12
2.	Pencil	5	₹ 10.00	50
3.	Charts	5	₹ 5.00	25
4.	Eraser	1	₹ 10.00	10
5.	Sharpener	3	₹ 5.00	15
6.	Sketch Pen	2	₹ 50.00	100
				₹ 212

Rabi bought one eraser, 3 sharpeners 2 sketch pens 5 charts 5 pencils and 6 pens
= ₹ 10 + 5 × 3 + 50 × 2 + 5 × 5 + 10 × 5 + 6 × 2
= ₹ 10 + 15 + 100 + 25 + 50 + 12
= ₹ 212
So, Ravi paid amount = ₹ 212.

8. Measurement

Exercise-8.1

1. (a) 32 m 45 cm = (32 × 100 + 45) cm
[∵ 1 m = 100 cm]
= (3200 + 45) cm
= 3245 cm

(b) 6m = 6 × 100 cm = 600 cm

(c) 30m = 30 × 100 cm = 3000 cm

(d) 24m 56cm = (2400 + 56) cm
= (2400 + 56) cm
= 2456 cm

2. (a) 25 km 217 m = (25 × 1000 + 217) m
[∵ 1 km = 1000 m]
= (25000 + 217) m
= 25217 m

(b) 8 km 250 m = (8 × 1000 + 250) m
= (8000 + 250) m
= 8250 m

(c) 6 km = 6 × 1000 = 6000 m

(d) 617 km = 617 × 1000
= 617000 m

3. (a) 920 cm = [100 cm = 1 m]

$\frac{920}{100} m$ = 9.2 m

100) 920 cm (9.2 m
− 900
200
− 200
0

(b) $480 \text{ cm} = \frac{480}{100}\text{m}$

$= 4.8 \text{ m}$

100) 480 cm (4.8 m
– 400
800
– 800
0

(c) $762 \text{ cm} = \frac{762}{100}\text{m}$

$= 7.62 \text{ m}$

100) 762 cm (7.62 m
– 700
620
– 600
200
– 200
0

(d) $379 \text{ cm} = \frac{379}{100}\text{m}$ [100 cm = 1 m]

$= 3.79 \text{ m}$

100) 379 cm (3.79m
– 300
790
– 700
900
– 900
0

4. (a) $9268\text{m} = \frac{9268}{1000}\text{km}$ [1000 m = 1 km]

$= 9.268 \text{ km}$

1000) 9268 m (9.268 km
– 9000
2680
– 2000
6800
– 6000
8000
– 8000
0

(b) $3408 \text{ m} = \frac{3408}{1000}\text{km}$

$= 3.408 \text{ km}$

1000) 3408 m (3.408 km
– 3000
4080
– 4000
8000
– 8000
0

(c) $4587 \text{ m} = \frac{4587}{1000}\text{km}$

$= 4.587 \text{ km}$

1000) 4587 m (4.587 km
– 4000
5870
– 5000
8700
– 8000
7000
– 7000
0

(d) $8456 \text{ m} = \frac{8456}{1000}\text{km}$

$= 8.456 \text{ km}$

1000) 8456 m (8.456 km
– 1000
4560
– 4000
5600
– 5000
6000
– 6000
0

5. (a) $45289 \text{ g} = \frac{45289 \text{ g}}{1000}$ [$\because$ 1000 g = 1 kg]

$= 45.289 \text{ kg}$

1000) 45289 g (45.289 kg
– 4000
5289
– 5000
2890
– 2000
8900
– 8000
9000
– 9000
0

(b) 68971 g = $\frac{68971}{1000}$ kg

= 68.971 kg

1000) 68971 g (68.971 kg
– 6000
8971
– 8000
9710
– 9000
7100
– 7000
1000
– 1000
0

(c) 5674 g = $\frac{5674}{1000}$ kg

= 5.674 kg

1000) 5674 g (5.674 kg
– 5000
6740
– 6000
7400
– 7000
4000
– 4000
0

(d) 3768 g = $\frac{3768}{1000}$ kg

= 3.768 kg

1000) 3768 g (3.768 kg
– 3000
7680
– 7000
6000
– 6000
8000
– 8000
0

6. (a) 6 kg 820 g = (6 × 1000 + 820) g
= (6000 + 820) g
= 6820 g

(b) 65 kg 546 g = (65 × 1000 + 546) g
= (65000 + 546) g
= 65546 g

(c) 7 kg 456 g = (7 × 1000 + 456) g
= (7000 + 456) g
= 7456 g

(d) 55 kg 986 g = (55 × 1000 + 986) g
= (55000 + 986) g
= 55986 g

7. (a) 45L25 ml = (45 × 1000 + 25) ml
= (45000 + 25) ml
= 45025 ml

(b) 8L76 ml = (8 × 1000 + 76) ml
= (8000 + 76) ml
= 8076 ml

(c) 79L33 ml = (79 × 1000 + 33) ml
= (79000 + 33) ml
= 79033 ml

(d) 4L500 ml = (4 × 1000 + 500) ml
= (4000 + 500) ml
= 4500 ml

8. (a) 6409 ml = $\frac{6409}{1000}$ L

= 6.409 L

1000) 6409 m (6.409 L
– 1000
4090
– 4000
9000
– 9000
0

(b) 2697 ml = $\frac{2697}{1000}$ L

= 2.697 L

1000) 2697 ml (2.697 L
− 2000
6970
− 6000
9700
− 9000
7000
− 7000
0

(c) 3000 ml = $\frac{3000}{1000}$ L

= 3L

1000) 3000 m (3L
− 3000
0

(d) 7568 ml = $\frac{7568}{1000}$ L

= 7.568 L

1000) 7568 ml (7.568 L
− 7000
5680
− 5000
6800
− 6000
8000
− 8000
0

Exercise-8.2

1.

	m
	295
+	896
	1191

2.

	m
	8117
+	972
	9089

3.

	m	cm
	61	71
	20	08
+	41	89
	123	68

	m	cm
	48	29
	72	85
+	18	95
	140	09

5.

	m	cm
	72	80
−	25	15
	47	65

6.

	m	cm
	15	86
−	10	72
	5	14

7.

	km	m
	175	216
−	86	563
	88	653

8.

	km	m
	201	063
−	172	128
	28	935

9.

	g
	421
+	218
	639

10.

	g
	378
+	225
	603

11.

	g
	975
	216
+	720
	1911

12.

	g
	675
	726
+	89
	1490

13.

	g
	829
−	425
	404

14.

	kg	g
	800	800
−	125	125
	675	675

15.

	L	ml
	34	105
+	4	864
	38	969

16.

L	ml
45	185
5	764
50	949

Exercise-8.3

1.

	m	cm
Length of red rebbnon bought by kala	18	73
Length of blue rebbon bought by kala	+ 27	65
Total length of ribbon bought by kala	46.	38

		L	ml
2. Weight of kerosene bought Ria	=	8	452
Weight of kerosene consumed Ria		– 5	387
Weight of kerosene left with her		3.	065
		kg	g
3. Weight of cherries bought by Raju	=	4	765
Weight of apples bought by Raju	=	3	134
Weight of banana bought by Raju	=	+ 1	000
The total weight of all three fruits	=	8.	899
		m l	
4. Weight of coconut oil bought shreya	=	246	
Weight of olive oil bought shreya	=	21	
Weight of mustard bought shreya	=	+ 450	
Weight of total quantity of 3 oil together	=	717	
		m	cm
5. Length of rope purchased by Vivek	=	42	52
Length of rope used by vivek to tie horse	=	– 17	15
Remaining length of rope he had	=	25	37
6. Weight of mike		kg	g
Weight of Anil		30	800
Weight of mike more		– 27	659
than Anil		03	141

BRUSH UP YOUR CONCEPTS

Plant	Height (cm)	Height (m)	Height (cm)
1.	115 cm	1	15
2.	234 cm	2	34
3.	175 cm	1	75
4.	116 cm	1	16
5.	208 cm	2	08
6.	104 cm	1	04
7.	264 cm	2	64
8.	203 cm	2	03

Weight : Do, yourself.

Competency Base

Questions

Fruits/Vegetables	Weight
Apple	1.846 kg
Cabbage	5.761 kg
Lemon	5.265 kg
Peach	0.725 kg
Pumpkin	7.245 kg
Strawberry	2.310 g
Pear	2.1 kg
Blueberry	11.28 kg

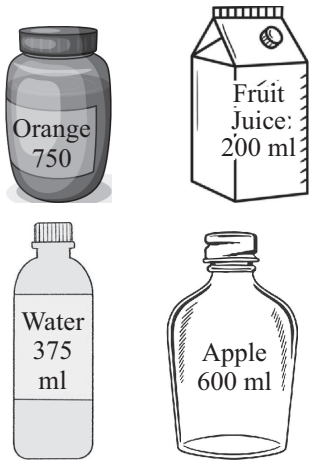
1. Blueberry → 11.28 kg, pumpkin → 7.245 kg cabbage → 5.761 kg Lemon → 5.265 kg, strawberry 2.310 kg, Pear → 2.1 kg, Apple → 1.846 kg, Peach → 0.725 g.

2. Lemon is heavie than pear by

= 5.265 kg – 2.1 kg

= 3.165 kg

Challenge



1. A fruit juice and apple drink = 200 ml + 600 ml = 800 ml

2. 2 Oranges drinks = 2 × 750 ml = 1500 ml = 1.5 L

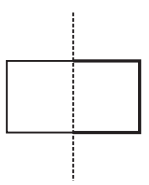
3. 1 water and 1 apple drink = 375 ml + 600 ml = 975 ml

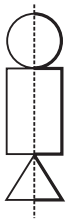
9. Patterns

Exercise-9

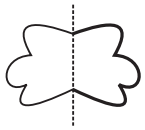
1. Complete the figures.

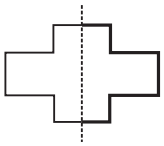
(a) (b)





(c) (d)

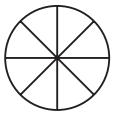


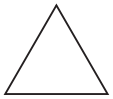


2. Do yourself.

3. Complete the pattern.

(a) (b)





(c)

4. Observe and complete the number pattern without calculation.

(a) 4 + 4, 5 + 5, 6 + 6

(b) 4 + 5 + 6, 5 + 6 + 7, 6 + 7 + 8

(c) 9 × 6 × 6 × 6 × 6, 9 × 6 × 6 × 6 × 6 × 6, 9 × 6 × 6 × 6 × 6 × 6 × 6

(d) 5 × 3 + 4, 5 × 4 + 5, 5 × 5 + 6

5. Observe and complete the number pattern with calculation.

(a) 4 + 5 = 9
5 + 6 = 11
6 + 7 = 13

(b) 4 + 5 + 6 = 15
5 + 6 + 7 = 18
6 + 7 + 8 = 21

(c) 2 + 4 = 6
2 + 5 = 7
2 + 6 = 8

BRUSH UP YOUR CONCEPTS

Decode!

1. GOD IS EVERY WHERE

2. PLANTTREES

Logic!

Do, yourself.

Challenge!

Which numbers are :

1. 1. **2.** 2, 3, 4, 5, 6, 7, 8, 9

3. 2, 4.

Growing Pattern!

Do, yourself.

10. Geometry

Exercise-10

1. Do, yourself.

2.

Sr. No.	Shapes	Number of edges	Number faces	Number of corners
(a)	cuboid	12	6	8
(b)	sphere	O (zero)	1	0
(c)	cube	12	6	8
(d)	cylinder	2	3	0

3. Do, yourself.

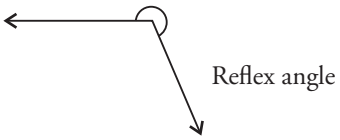
4. Do, yourself.

5. (a) line (b) Ray (c) line segment

6. Do, yourself.

7. (a) $\angle 1 = 120°$ (b) $\angle 2 = 67°$

8. (a)

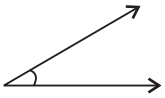


Reflex angle

(b)

Straight angle

(c)



Acute angle

BRUSH UP YOUR CONCEPTS

Identify the Circle Terms!

1. Centre = O

2. Radius = AO, OB

3. Diameter = AB

4. Chord = PQ

Side and Vertex!

1. 8 Vertices
8 Sides

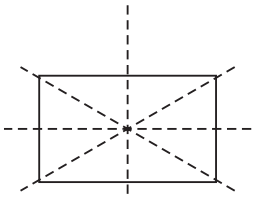
2. 6 Vertices
6 Sides

3. 12 Vertices
12 Sides

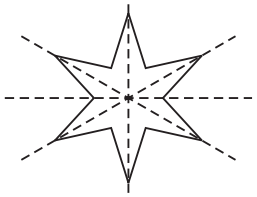
4. 5 Vertices
5 Sides

Lines of Symmetry in Geometrical Shapes!

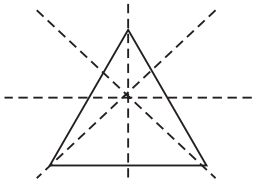
1.



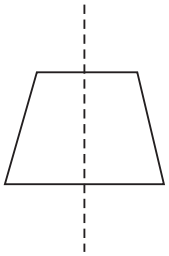
2.



3.

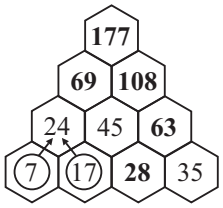


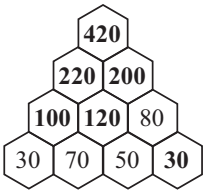
4.



Challenge!

Each hexagon is made by adding up the numbers in the two hexagons alongside it. Fill the missing numbers in these puzzles.

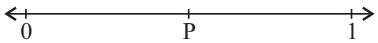




11. Fractions

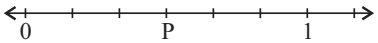
Exercise-11

1. (a)



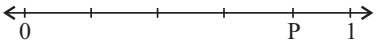
$\frac{1}{2}$

(b)



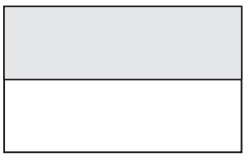
$\frac{3}{7}$

(c)



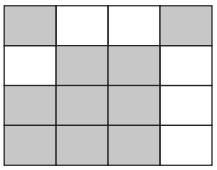
$\frac{4}{5}$

2. (a)



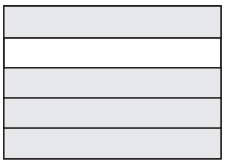
$= \frac{1}{2}$

(b)



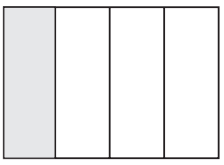
$= \frac{10}{16}$

(c)



$= \frac{4}{5}$

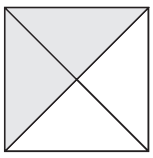
(d)



$= \frac{1}{4}$

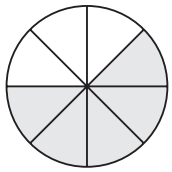
3. Shade the part that will tell the given fractions.

(a)



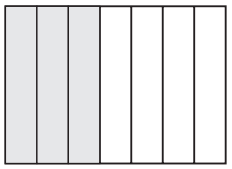
$= \frac{1}{2}$

(b)



$= \frac{5}{8}$

(c)



$= \frac{3}{7}$

4. Write the fraction for the following fractional numbers.

(a) six-sevenths = $\frac{6}{7}$

(b) two-fifths = $\frac{2}{5}$

(c) seven-twelfths = $\frac{7}{12}$

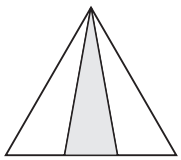
(d) three-fourths = $\frac{3}{4}$

(e) four-thirteenths = $\frac{4}{13}$

(f) five-fifteenths = $\frac{5}{15}$

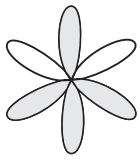
5. Observe the figures and write the fractions for unshaded protions.

(a)



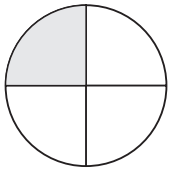
$= \frac{2}{3}$

(b)



$= \frac{2}{6}$

(c)



$= \frac{1}{4}$

6. Classify for the following fractions.

(a) $\frac{9}{11}$ = Proper (b) $\frac{19}{9}$ = Improper

(c) $\frac{17}{10}$ = Improper (d) $3\frac{8}{14}$ = Mixed

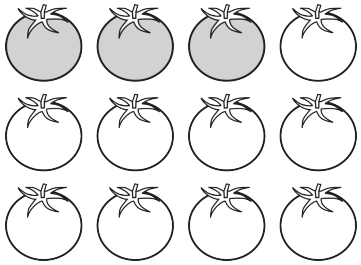
(e) $\frac{1}{16}$ = Proper (f) $2\frac{5}{15}$ = Mixed

7. Write the fraction for the following numerators and denominators.

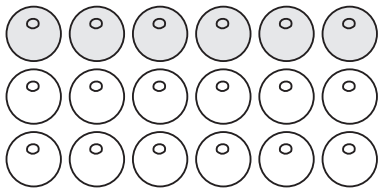
	Numerators	Denominators	Fraction
(a)	5	18	$\frac{5}{18}$
(b)	8	13	$\frac{8}{13}$
(c)	11	17	$\frac{11}{17}$
(d)	3	10	$\frac{3}{10}$
(e)	12	14	$\frac{12}{14}$

8. Colour the fraction of the following collections.

(a) $\frac{1}{4}$ of 12 = 3 tomatoes



(b) $\frac{1}{3}$ × 18 = 6 beads



BRUSH UP YOUR CONCEPTS

Missed Out!

	Shaded parts	Fractions	Fractional Numbers	Figures
1.	3 parts out of 5 equal parts	$\frac{3}{5}$	Three -fifths	
2.	5 parts out of 6 equal parts	$\frac{5}{6}$	Five-six	
3.	4 parts out of 7 equal parts	$\frac{4}{7}$	Four-sevenths	
4.	3 parts out of 8 equal parts	$\frac{3}{8}$	Three-eights	
5.	7 parts out of 12 equal parts	$\frac{7}{12}$	Seven-twelfths	

6. Guess!

Student drew a rectangle and divided it into 10 equal parts. If he/she shaded 3 parts, has fraction will he/she have?

Shaded fraction = $\frac{3}{10}$

Comprehension Math!

1. 7 **2.** 3

3. 4 **4.** $\frac{4}{7}$

5. $\frac{3}{7}$

12. Time

Exercise-12

1. Look at the pictures and write AM/PM.

(a) 7:25 AM (b) 10:20 PM

(c) 4:15 PM (d) 6 : 00 AM

2. (a) 7 hours 3 minutes
= (7 × 60 + 3) minutes
[∵ 1 hour = 60 minutes]
= (420 + 3) minutes
= 423 minutes

(b) 10 hours 15 minutes
= (10 × 60 + 15) minutes
= (600 + 15) minutes
= 615 minutes

(c) 5 hours and 27 minutes
= (5 × 60 + 27) minutes
= (300 + 27) minutes
= 327 minutes

(d) 11 hours = 11 × 60 minutes
= 660 minutes

3. (a) 10 : 55 AM = 10 : 55 hours

(b) 3 : 40 PM = (3 : 40 + 12) hours
= 15 : 40 hours

(c) 2 : 20 PM = (2 : 20 + 12) hours
= 14 : 20 hours

(d) 07 : 05 AM = 07 : 05 hours

(e) 5 : 48 PM = (5 : 48 + 12) hours
= 17 : 48 hours

(f) 1 : 35 PM = (1 : 35 + 12) hours
= 13 : 35 hours

4. (a) 12 minutes 35 seconds
= (12 × 60 + 35) seconds
[∵ 1 minutes = 60 seconds]
= (720 + 35) seconds
= 755 seconds

(b) 35 minutes 48 seconds
= (35 × 60 + 48) seconds
= (2100 + 48) seconds
= 2148 seconds

(c) 45 minutes 54 seconds
= (45 × 60 + 54) seconds
= (2700 + 54) seconds
= 2754 seconds

(d) 27 minutes = 27 × 60 seconds
= 1620 seconds

5. (a) 3 hours after 6 : 03 AM
= 6 : 05 AM + 3 : 00 AM
= 9 : 05 AM

(b) 2 hours before 12 noon
= 12 : 00 AM – 2 : 00 AM
= 10 : 00 AM

(c) 1 hour after mid night = 1 : 00 AM

(d) 3 hours before 8 : 10 PM = 8 : 10 – 3 : 00 = 5 : 10 PM

6. (a) 1229 [∵ 1 minutes = 60 seconds]

∴ 60) 1229 sec (20 min
– 120
29 sec

Hence, 1229 seconds = 20 minutes and 29 seconds.

(b) 366 seconds

60) 366 sec (6 minutes
– 360
6 sec

Hence, 366 seconds = 6 minutes 6 seconds.

(c) 547 minutes

60) 547 sec (9 minutes
– 540
7 sec

Hence, 547 seconds = 9 minutes 7 seconds.

7. (a) 23 : 40 hours = 23 : 4 – 12
= 11 : 40 PM
(b) 14 : 18 hours = 14 : 18 – 12
= 2 : 18 PM
(c) 17 : 25 hours = 17 : 25 – 12
= 5 : 25 PM

8. ∵ 1 minutes = 60 seconds
(a) ∴ 160 minutes = 160 × 60
= 9600 seconds
(b) 45 minutes = 45 × 60 = 2700 seconds
(c) 22 minutes = 22 × 60 = 1320 seconds

9. ∵ 1 days = 24 hours
(a) ∴ 15 days 3 hours
= (15 × 24 + 3) hours
= (360 + 3) hours
= 363 hours
(b) 12 days 5 hours = (12 × 24 + 5) hours
= (288 + 5) hours
= 293 hours
(c) 5 days 7 hours = (5 × 24 + 7) hours
= (120 + 7) hours
= 127 hours

10. (a)11 : 10 AM to 2 : 30 PM
= 14 : 30 – 11 : 10
= 3 : 20 hours
= 3 hours 20 minutes
(b) 6 : 00 AM to 9 : 30 AM
= 9 : 30 – 6 : 00
= 3 : 30 hours
= 3 hours 30 minutes
(c) 06 : 20 hours to 8 : 50 hours
= 8 : 50 – 6 : 20
= 2 : 30 hours
= 2 hours 30 minutes
(d) 8 : 15 PM to 9 : 30 PM
= 9 : 30 – 8 : 15
= 1 : 15 hours
= 1 hours 15 minutes

11. A class test starts = 9 : 00 AM
A class test completed = 10 : 30 AM
Duration of the test = 10 : 30 – 9 : 00
= 1 : 30 hours
= 1 hours 30 minutes

12. A foot ball match started = 4 : 00 PM
= 12 : 00 + 4 : 00
= 16 : 00 hours
A foot ball finished at
= 12 : 00 + 7 : 30
= 19 : 30 hours
Duration of time = 19 : 30 – 16 : 00
= 3 : 30 hours
= 3 hours 30 minutes

BRUSH UP YOUR CONCEPTS

Blanks : Do, yourself.

How many

1. Days in 1 year 365

2. Hours in 1 day 24

3. Weeks in 1 year 52

4. Seconds in 1 minutes 60

5. Days in 1 week 7

6. Minutes in 1 hour 60

Time in different ways : Do, yourself.

Challenge

1. Duration of time for cleaning the hours
= 1 hour 30 minutes
= 1 : 30 hours
The time in which she finished her work
= 12 : 45 PM
The time in which she start her work
= 12 : 45 – 1 : 30
= 11 : 15 AM

2. Mukesh left his house for jogging = 14 : 20 hours
The time he ran = 2 hours 15 minutes
= 2 : 15 hours
He reached his home = 14 : 20 + 2 : 15
= 16 : 30 hours
OR
16 : 35– 12 : 00 = 4 : 35 PM

13. Data Handling

Exercise-13

1.

	Numbers	Tally marks
(a)	37	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 II
(b)	25	𝍸 𝍸 𝍸 𝍸 𝍸
(c)	20	𝍸 𝍸 𝍸 𝍸
(d)	23	𝍸 𝍸 𝍸 𝍸 III
(e)	27	𝍸 𝍸 𝍸 𝍸 𝍸 II
(f)	16	𝍸 𝍸 𝍸 I
(g)	17	𝍸 𝍸 𝍸 II
(h)	12	𝍸 𝍸 II
(i)	26	𝍸 𝍸 𝍸 𝍸 𝍸 I
(j)	18	𝍸 𝍸 𝍸 III

2. (a) The maximum students were absent on Monday.

(b) 10 students were absent on Monday.

(c) 7 students were absent on Saturday.

(d) 37 students were absent in a week.

3. (a) Marks obtained by a student in relative subjects.

(b) 60 marks scored in science.

(c) Maximum marks were scored in maths.

(d) 5 subjects are referred in the graph

(e) Maximum marks = 70

Minimum marks = 40

Difference = 70 – 40 = 30.

4.

Icecream flavour	Numbers of students	Tally marks
Strawberry	7	𝍸 II
Vanilla	5	𝍸
Chocolate	16	𝍸 𝍸 𝍸 I
Butterscotch	14	𝍸 𝍸 IIII
Kesar pista	4	IIII
Mango	9	𝍸 IIII

5. (a) 15 children like orange juice.

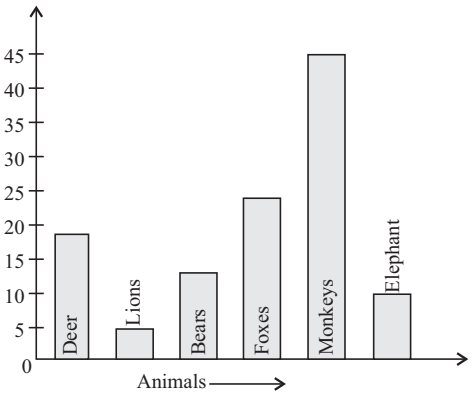
(b) Mango juice is the most favourite juice among the children.

(c) Grapes juice is the least juice among the children.

(d) Pineapple juice is liked by 9 children.

6.

Animals	No. of animals	Tally marks
Deer	18	𝍸 𝍸 𝍸 III
Lions	5	𝍸
Bears	13	𝍸 𝍸 III
Foxes	25	𝍸 𝍸 𝍸 𝍸 𝍸
Monkeys	45	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Elephants	11	𝍸 𝍸 I



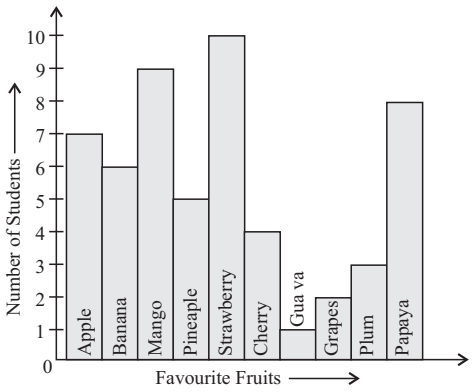
7. (a) There are 5 × 5 = 25 white flowers in the garden.

(b) No. of pink flowers = 5 × 4 = 20
No. of yellow flowers = 2 × 5 = 10
Difference = 20 – 10 = 10
Hence, 10 pink flowers are more than yellow flowers in the garden.

(c) Red flowers was least.

(d) Maximum flowers = 25
Maximum flowers = 5
Difference = 25 – 5 = 20

8.



9. (a) Rainfall in city A = 15 × 8 = 120 cm.
Rainfall in city B = 15 × 3 = 45 cm
Difference = 120 – 45 = 75 cm
Hence, 75 cm rainfall is less in city B than city A.

(b) Rainfall in city C = 15 × 10 = 150 cm
Rainfall in city D = 15 × 11 = 165 cm
Difference = 165 – 150 = 15 cm
Hence, 15 cm more rainfall in city D than city C

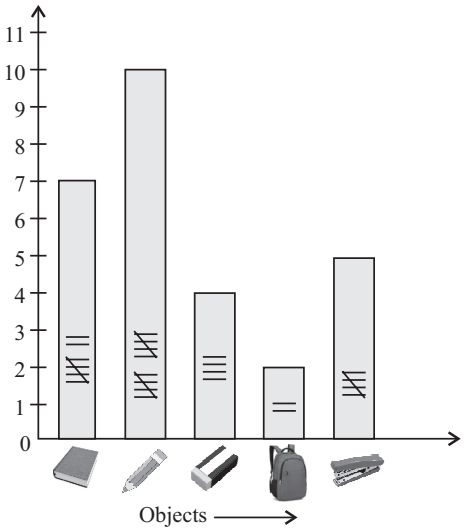
(c) Total rainfall in cities in A, B, C, D
= 120 + 45 + 150 + 165
= 480 cm.

10.

Categories of Stations	tally marks	numbers
Station 1	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||||	34
Sectoin 2	𝍸 𝍸 𝍸 𝍸 ||	22
Station 3	𝍸 𝍸 𝍸 𝍸 ||||	24
Station 4	𝍸 𝍸 𝍸 𝍸	20

BRUSH UP YOUR CONCEPTS

Vertical Bar Graph



Pictograph

1. (a) A lot more polular is Barbecue.

(b) A bit more popular is salt and venegar.

(c) Not popular is chicken.

2. (a) A lot more popular is Barbecue.

(b) A bit more popular is salt and vinegar.

(c) Not popular is chicken.

3. Graph-2.

4. 48 people were surveyed in graph 1 and 192 people were surveyed in graph 2.

Hence, 48 + 192 ie 240 people were surveyed in graph 1 and graph 2.

Challenge

Number of Students	9	9	8	4
Marks scored	60–70	70–80	80–90	90–100
Tally marks	𝍸 ||||	𝍸 ||||	𝍸 |||	||||

Test Yourself-1

Section-A

1. (b) Sum of place values of two 3's
= 3000 + 3
= 3003.

2. (a) 6695 nearest to 1000 = 7000
2296 nearest to 1000 = + 2000
= 9000

3. (c) Smallest 4 digit number = 1000
largest 2 digit number = – 99
Difference = 901

4. (d) Multiply by 1000.

5. (d) 54

6. (c) $\frac{25}{35}$

Section-B

7. (a) Four thousand five hundred six = 4506
(b) Nine thousand eight hundred twenty two = 9822.

8. (a) 2653 = Two thousand six hundred fifty three.
(b) 8679 = Eight thousand six hundred seventy nine.
(c) 7890 = Seven thousand eight hundred ninety.
(d) 3251 = Three thousand two hundred fifty one.

9. (a) XXV = 25
(b) XXXVII = 37
(c) XIX = 19
(d) XLVII = 47

10. Required number = 6640.

11. Required number = 3078.

12. (a) 2000 + 500 + 60 + 7 = 2567
(b) 9000 + 600 + 30 + 1 = 9631

13. (a) 3862, 4502, 4509, 4529, 5029
(b) 9863, 8932, 6680, 5402, 2540.

14. (a) The distance ran by Surbhi = 3450 m
The distance ran by Pihu = – 3054 m
396m
Since, 3450 > 3054, So, Surbhi ran 396m more than Pihu.

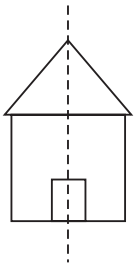
15. (a) Place value of 8 in 2380 = 80
(b) Place value of 0 in 3405 = 0.

Section-C

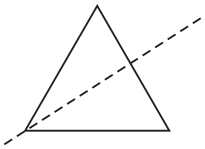
16. (a) 3, 6, 12, 24, 48, 96, 192
(b) 4, 7, 10, 13, 16, 19, 22

17. The cost of 5 pencils = ₹ 125
The cost of 1 pencil = $\frac{125}{5}$ = ₹ 25
The cost of 15 pencils = 25 × 15 = ₹ 375.

18. (a)



(b)



So, symmetric lines of are drawn in only (a) and (b)

19.

Vegetable	Price 1 kg	Quantity	Price
Potato	₹ 30	3 kg	30 × 3 = ₹ 90
Onion	₹ 45	2 kg	45 × 2 = ₹ 90
Peas	₹ 80	1 kg	80 × 1 = ₹ 80
Carrot	₹ 40	5 kg	40 × 5 = ₹ 200
Cauliflower	₹ 35	2 kg	35 × 2 = 70
Total			₹ 530

The amount given by Mrs Pundir
= 500 + 200
= ₹ 700

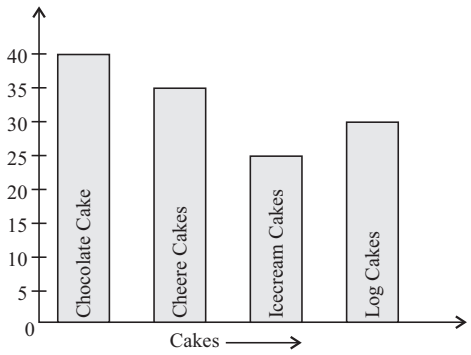
The amount expense for purchase vegetables
= – ₹ 530

The amount get by mrs Pundir = ₹ 170

20. (a) Required time = 2 : 15 PM
+ 2 hours 30 minutes
= 4 : 45 PM

(b) Required time = 2 : 15 PM
+ 9 hours 45 minutes
= 12 : 00 midnight

21.



(a) He made 10 chocolate cabes more than log cabes

(b) Cost of an icecream = ₹ 12
Cost of 25 icecreams = ₹ 12 × 25
= ₹ 300

(c) 35 cheese cakes cost = 35 × 8
= 280
Cost of 30 log cake = 30 × 3
= 90
Difference = 280 – 90
= ₹ 90

(d) Total number of cakes
= 40 + 35 + 25 + 30
= 130.

22. (a) Sports preferred by students.
(b) 7 students play badminton.
(c) Crichet is the most popular game.
(d) 38 students were surveyed.

Test Yourself-2

Section-A

1. (a) The number of zeroes in smallest 4 digit number are 3.

2. (a) Since;
$$\begin{array}{r} 26.95 \\ +\ 32.96 \\ \hline 59.91 \end{array}$$

3. (d) To convert the length given L into ml, we multiply by 1000.

4. (d) 12, 24, 36, 48, 60, 72

5. (b) XL = 40

6. (d) Days in January = 31
Days in March = 31
Sum 62

7. No. of men = 4269
No. of women = 2758
No. of children = + 2160
Total population = 9187

8. The amount has Amar = ₹ 9004
The amount expense to purchase bycycle = – ₹ 3856
The balance amount does he has = ₹ 5148

9. Total students in a school = 265
Amount contributes by a student = ₹ 15
Total amount collected = 265 × 15
= ₹ 3975

10. Number of trucks = 16
Number of bags were loaded = 2416
Number of bags were loaded in each truck = $\frac{2416}{16}$

By long division method, we have

16) 2416 (151
− 16
81
− 80
16
− 16
0

Hence, 151 bags were loaded in each truck.

11. Three line segments can be drawn among three non collinear points.

12. (a) AB is a diameter of the circle.

(b) OC is a radius of the circle.

(c) PQ is a chord of the circle.

13. (a) XII + VIII = XX

(b) XL – X = XXX

(c) L – XX = XXX

(d) 5 × 32 × 2 = 320

(e) $(20 \times 143) \div 5 = \frac{2860}{5} = 572$

(f) $2750 \div (6 + 4) = 2750 \div 10 = \frac{2750}{10}$

= 275

14. (a)
$$\begin{array}{r} 4\ 3\ 8\ 8 \\ +\ 3\ \boxed{2}\ 9\ \boxed{5} \\ \hline \boxed{7}\ 6\ \boxed{8}\ 3 \end{array}$$

(b)
$$\begin{array}{r} 7\ 6\ 9\ 4 \\ -\ 5\ \boxed{8}\ 3\ \boxed{9} \\ \hline \boxed{1}\ 8\ \boxed{5}\ 5 \end{array}$$

15. Round off the given numbers nearest to 100 are

(a) 9287 = 9300 (b) 2043 = 2000

(c) 1702 = 1700 (d) 4227 = 4200

Section-C

16. The Pihu's school has been closed on = 29 december

Number of days the school has been closed = 15

The pihus school will repon = 29 dec., 30 dee, 31 dec; 1 Jan. 2 Jan, ..., 13 Jan.

So, Pihu's school will be reopean on 13 Jannuary.

17. minutes seconds

37 45
+ 15 38
52 83
ie 53 23 [∵ 60 sec = 1 min]

18. hours minutes

5 81
6 21
− 4 39
1 42 [∵ 1 hr = 60 min]

19. Quantity of milk contained = L ml
in a bucket = 16 825
Quantity of milk contained = 5 785
in another bucket
Quantity of milk contained = 22 610
in both bucket

20. 2nd July 2020 was Thursday

(a) So, 7) 22 (3
21
1

On 2nd July was Thursday So, 22 July was Friday.

(b) Days from 2 July 2020 to 31 July 2020

= 31 – 1 = 29

Days from 1 August 2020 to 9 August 2020 = 9

Total days = 29 + 9 = 38 days

Now, 7) 38 (5
35
3

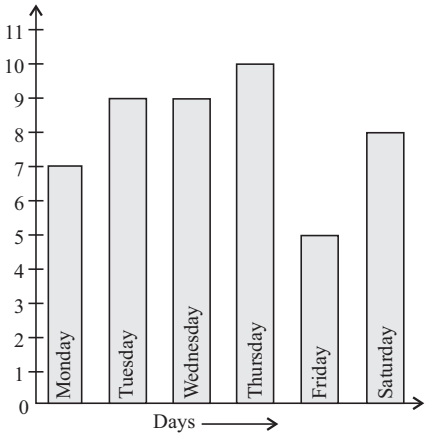
The day on 9 August = 3 days after Thursday i.e., Sunday.

21. Number of days in June = 12

Number of days in July = + 7

Total number of days = 19

22.



(a) On Thursday the temperature was maximum.

(b) On Friday the temperature was minimum.

(c) On Tuesday and Wednesday the temperature was same.

(d) Average temperature of all six days

$$= \frac{7°C + 9°C + 9°C + 10°C + 5°C + 8°C}{6}$$

$$= \frac{48°C}{6} = 8°C.$$

❑❑

Mathematics - 5

1. Number Sense

Exercise-1.1

1. (a) 36745 = Thirty six thousand seven hundred forty five.

(b) 10764 = Ten thousand seven hundred sixty four.

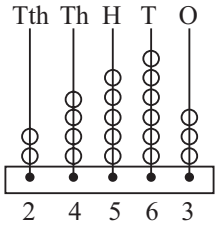
(c) 3021 = Three thousand twenty one.

2. (a) 50000 = 50,000 (b) 80808 = 80,808

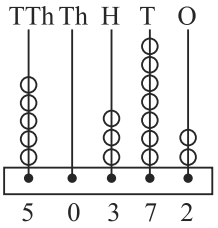
(c) 94123 = 94,123 (d) 36104 = 36,104

(e) 15048 = 15,048

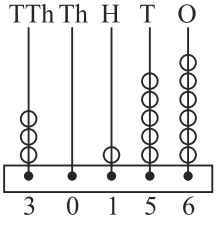
3. (a)



(b)



(c)



4.

	Number	T.Th	Th	H	T	O
a	95250	9	5	2	5	0
b	75949	7	5	9	4	9
c	18724	1	8	7	2	4
d	35414	3	5	4	1	4
e	64980	6	4	9	8	0

5. (a) 84569 = Eighty four thousand five hundred sixty nine.

(b) 78654 = Seventy eight thousand six hundred fifty four.

(c) 32460 = Thirty two thousand four hundred sixty.

(d) 40987 = Forty thousand nine hundred eighty seven.

(e) 52731 = Fifty two thousand seven hundred thirty one

6. (a) seventy four thousand two hundred thirty = 74,230.

(b) Forty six thousand nine = 46,009

(c) Ninety Thousand eight hundred sixteen = 90,816

(d) Sixty one thousand eighteen = 61,018

(e) Eleven thousand = 11,000

7. (a) 5 more then 99857 = 99857+5
= 99862

(b) 6 less than 45689 = 45689 – 6 = 45683

(c) 1 more than 99998 = 99998 + 1
= 99999.

8. (a) 76235, 77235, 78235, 79235, 80235

(b) 23657, 24657, 25657, 26657, 27657

Exercise-1.2

1. (a) 16087
8 = 80

(b) 44433
3 = 3

(c) 98642
8 = 8000

(d) 78965
7 = 70000

2. (a) 45120 = 4 ten thousand + 5 thousands + 1 hundreds + 2 tens + 0 ones

(b) 67072 = 6 ten thousand + 7 thousands + 0 hundreds + 7 tens + 2 ones

(c) 36521 = 3 ten thousand + 6 thousands + 5 hundreds + 2 tens + 1 ones

(d) 73695 = 7 ten thousand + 3 thousands + 6 hundreds + 9 tens + 5 ones

3. (a) 98952 = 9 × 10000 + 8 × 1000 + 9 × 100 + 5 × 10 + 2

(b) 51246 = 5 × 10000 + 1 × 1000 + 2 × 100 + 4 × 10 + 6

(c) 27890 = 2 × 10000 + 7 × 1000 + 8 × 100 + 9 × 10 + 0

(d) 19864 = [1] × 10000 + [9] × 1000 + [8] × 100 + [6] × 10 + [4]

4. (a) 40000 + 3000 + 600 + 50 + 8 = 43658
(b) 80000 + 7000 + 70 + 1 = 87071
(c) 60000 + 2000 + 100 + 9 = 62109
(d) 10000 + 6000 + 4 = 16004

5. (a) 82463 = 80000 + 2000 + 400 + 60 + 3
(b) 92409 = 90000 + 2000 + 400 + 0 + 9
(c) 54321 = 50000 + 4000 + 300 + 20 + 1
(d) 36428 = 30000 + 6000 + 400 + 20 + 8

6. (a) Given number is 1 1 8 0 4
Place value of 1 = 1000
Face Value of 1 = 1
(b) 2 2 9 6 2
Place value of 9 = 900
Face Value of 9 = 9
(c) 7 8 0 4 3
Place value of 7 = 70000
Face Value of 7 = 7
(d) 9 6 1 2 4
Place value of 1 = 100
Face Value of 1 = 1

Exercise-1.3

1. (a) 61016 [>] 60106
(b) 69701 [>] 68701
(c) 18427 [<] 18521
(d) 81111 [>] 81101
(e) 12608 [>] 11608
(f) 16815 [<] 18915

2. (a) 24000 > 24043 [False]
(b) 91180 > 79200 [True]
(c) 75819 < 87510 [True]
(d) 56160 > 56166 [False]
(e) 60700 > 60699 [True]
(f) 89111 < 81119 [False]

3. (a) 65473, 65743, 65437, [65798]
(b) 45674, [45762], 45679, 45688
(c) 81650, [81657], 81653, 81356
(d) 59876, 59867, 59873, [59879]

4. (a) 45687, 45698, [45268], 45789
(b) 36897, 36987, 36989, [36457]
(c) 59478, [59469], 59499, 59488
(d) 59874, 59876, 59873, [69871]

5. (a) Required number using the digits 2, 4, 7, 8, 9 is 24789
(b) Required number using the digits 5, 0, 9, 1, 3 is 10359
(c) Required number using the digits 5, 7, 8, 6, 4 is 45678

6. (a) successor of 99,786 + 1 = 99, 787
(b) successor of 67549 + 1 = 67550
(c) successor of 34,526 = 34, 526 + 1 = 34,527
(d) successor of 21,345 = 21,345 + 1 = 21,346
(e) successor of 84,635 = 84,635 + 1 = 84,636

7. (a) The numbers comes just before 54768 – 1 = 54767
(b) The numbers comes just before = 76490 – 1 = 76489
(c) The numbers comes just after 36569 = 36569 + 1 = 36570
(d) The numbers comes in between 26547 and 26549 = 26548
(e) What number comes just after 68975 is 68975 + 1 = 68976

8. (a) Predecessor of 52,008 = 52,008 – 1 = 52,007
(b) Predecessor of 67,980 = 67,980 – 1 = 67,979
(c) Predecessor of 82,543 = 82,543 – 1 = 82,542
(d) Predecessor of 73,546 = 73,546 – 1 = 73,545
(e) Predecessor of 91,432 = 91,432 – 1 = 91,431
(f) Predecessor of 63,806 = 63,806 – 1 = 63805

9. (a) The given digits are: 2, 1, 3, 4, 6
The greatest number = 64,321
The smallest number = 12,346
(b) The given digits are: 9, 2, 6, 3, 5
The greatest number = 96,532
The smallest number = 23,569

(c) The given digits are: 2, 0, 4, 2, 8
The greatest number = 84,220
The smallest number = 20,248

(d) The given digits are: 5, 9, 7, 8, 7
The greatest number = 98,775
The smallest number = 57,789

(e) The given digits are: 6, 3, 8, 0, 5
The greatest number = 86,530
The smallest number = 30,568

(f) The given digits are: 9, 1, 2, 4, 3
The greatest number = 94,321
The smallest number = 12,349

10. The given ascending order is ; in a sending order.

Sunday 10,025 < Saturday 10, 105 < Thursday 68,905 < Monday 75,242 < Tuesday 75,835 < Friday 79,155 < Wednesday 80,000.

i.e., 10,025 < 10,105 < 68,905 < 75,242 < 75835 < 79,153 < 80,000

Exercise-1.4

1. Round off the given numbers to nearest 10 are:

(a) 2539 = 2540 (b) 35 = 40
(c) 2412 = 2410 (d) 176 = 180
(e) 277 = 280

2. Round off the given numbers to nearest 100 are:

(a) 6215 = 6200
(b) 576 = 600
(c) 9910 = 9900
(d) 5883 = 5900
(e) 54213 = 54200

3. Round off the given numbers to nearest 1000 are:

(a) 5225 = 5000
(b) 4569 = 5000
(c) 75463 = 75000
(d) 26897 = 27000
(e) 37691 = 38000

4. (a) 75000 = even
(b) 914 = even
(c) 1011 = odd
(d) 23564 = even
(e) 5899 = odd

BRUSH UP YOUR CONCEPTS

Ascending or Descending order :

1. Ascending order of the given numbers is: 29,531, 38502, 43,953, 44,664, 53,294, 64,417,96225.

2. City. 4

3. Descending order.

96,225, 64,417, 53,294, 44,664, 43,953, 38,502, 29,531

4. City 2

Number Names

	T.Th	Th	H	T	O	
1		5	4	3	1	Five thousand four hundred thirty one
2	3	5	2	6	4	Thirty five thousand two hundred sixty four
3	1	9	5	0	0	Nineteen thousand five hundred
4	6	9	0	0	7	Sixty nine thousand seven
5	9	9	9	9	9	Ninety nine thousand nine hundred ninety nine.

Numerals :

1. Ten thousand four hundred seventy five. = 10475

2. Twenty nine thousand eight hundred seventeen. = 29817

3. Fifty three thousand seven hundred sixty eight. = 53768

4. Seventeen thousand seventeen. = 17017

5. Eighty thousand = 80000

Abacus– Do, yourself

Greatest and smallest Numbers

1, 9, 8, 2, 3 2, 4, 0, 1, 5 6, 0, 0, 2, 3

1. Greatest Number

98321 54210 63200

2. Smallest Number

12389 10245 20036

Complete the bores

1. 47, 276, 47, 286, 47296 47306 47316 47326 47336

2. 21, 148, 21, 248 21,348 21,448 21,548 21,648 21,748

3. 47, 106, 48106 49,106 50,106 51,106 52,106 53,106

4. 52, 215, 62, 215 72,215 82,215 92,215 102,215 112, 215

Nearest Thousand

The given amount in months of the year in nearest thousands are:

1. January – ₹ 39,778 is ₹ 40,000

2. February – ₹ 62,132 is ₹ 62,000

3. March – ₹ 1164 ₹ 1000

4. July – ₹ 24,581 is ₹ 25,000

5. September – ₹ 94,567 is ₹ 95,000

6. December – ₹ 5565 is ₹ 6,000

2. Roman Numerals

Exercise-2

1. (a) A day has XXIV hours.

(b) January has XXXI days.

(c) There are XII months in one year.

(d) April has XXX days.

2. (a) The number ninety nine is written as XC False

The numbers ninety nine is written a s XCIX

(b) The value of L i s 50 True

(c) We can repcat X more than 3 times False (I, X and C can be repeated only up to three times)

(d) The number for CC is 190 False

(The numbers for CC is 200)

3. (a) (i) L X 1 = 61

(ii) X C V II = 97

(iii) X L VII = 47

(iv) L X X X = 80

(v) X L V I I I = 48

(vi) C X C = 190

(b) (i) 162 = C L X I I

(ii) 140 = C X L

(iii) 155 = C L V

(iv) 174 = C L X X I V

(v) 198 = C X C V I I I

(vi) 48 = X L V I I I

4. (a) (iii) (b) (iv) (c) (i) (d) (v) (e) (ii)

5. (a) 55 – 18 = 37

∴ 37 = XXXVII

(b) 100 – 70 = 30

∴ 30 = XXX

(c) 170 – 67 = 103

∴ 103 = CIII

(d) 120 – 50 = 70

∴ 70 = LXX

6. (a) 100 + 64 = 164

∴ 164 = CLXIV

(b) 176 + 24 = 200

∴ 200 = CC

(c) 115 + 29 = 144

∴ 144 = CXLIV

(d) 139 + 51 = 190

∴ 190 = CXC

7. The required ascending order of Roman numerals are :

(a) XCIX, CIX, CXIX, CXXI

(b) CLIX, CXC, CXCII, CXCVII

8. The required descending order of Roman numerals are :

(a) LXXXII, LXXV, LXIX, LIV, XL

(b) LXXXIV, LXXV, LIX, XLIX, XLIV

BRUSH UP YOUR CONCEPTS

Greater or lesser.

1. 19 [=] XIX
2. XV [>] 14
2. V [<] 12
4. 29 [<] XXX

Circle the wrong ones

1. LXIX
2. (XXC)
3. (CIIX)
4. CLXX
5. (CLIIIX)

Achiever's Section

No. of non flowering plants = 81

No. of flowering plants = 93

Total no. of number of plants in the gorden =174.

So, 174 in Roman numeral = CLXXIV

Decode

"Please do not eat us"

Crossword Challenge

Do, yourself

3. Addition and Subtraction

Exercise-3.1

1. (a) 43428 + 46325 = [89753]

(b) 58209 + 23490 = [81699]

(c) 56938 + 23452 = [80390]

(d) 66902 + 15789 + 11465 = [94156]

(e) 21461 + 14231 + 23250 = [58942]

2. (a) 98035 − 45876 = [52,159]

(b) 99320 − 60235 = [39,085]

(c) 87002 − 48256 = [38,746]

(b) 50702 − 13854 = [36,848]

3. (a) 65,772 + 47, 994 = [113,766]

(b) 90,3 07 + 6507 = [96,814]

(c) 2,338 + 65,419 = [67,757]

(d) 77,083 + 92,456 + 5,008 = [174,547]

(e) 45,206 + 62,318 + 10,170 = [1,17,694]

(f) 34,673 + 65,708 = [100,381]

4. (a) 50,871 − 23,692 = [27,179]

(b) 64,015 − 35,794 = [28,221]

(c) 85,106 − 37,895 = [47,211]

(d) 47,852 − 30,547 = [17,305]

(e) 63,005 − 56413 = [6592]

(f) 57,682 − 25,341 = [32,341]

5. (a)

	TTh	Th	H	T	O
	①	①	1		
	7	6	3	8	1
+	1	0	6	5	1
	8	7	0	3	2

(b)

	TTh	Th	H	T	O
	①	①		①	
	3	5	6	2	4
+	2	5	9	4	6
	6	1	5	7	0

(c)

	TTh	Th	H	T	O
	①	①	①		
	7	7	8	8	2
+		8	5	3	7
	8	6	4	1	9

(d)

	TTh	Th	H	T	O
	①	①		①	
	5	7	2	5	8
+		4	8	3	5
	6	2	0	9	3

(e)

	TTh	Th	H	T	O
	①	①			
	6	6	7	9	1
+		5	7	0	0
	7	2	4	9	1

(f)

	TTh	Th	H	T	O
		①			
	5	5	9	3	0
+		1	2	3	0
	5	7	1	6	0

6. (a)

	TTh	Th	H	T	O
	5	9	0	5	0
–	4	8	3	1	5
	1	0	7	3	5

(b)

	TTh	Th	H	T	O
	9	0	2	0	7
–	4	9	8	2	1
	4	0	3	8	6

(c)

	TTh	Th	H	T	O
	5	9	6	9	7
–	2	7	6	0	6
	3	2	0	9	1

(d)

	TTh	Th	H	T	O
	8	4	9	1	8
–			2	6	0
	8	4	6	5	8

(e)

	TTh	Th	H	T	O
	1	5	2	3	2
–		8	0	4	2
		7	1	9	0

(f)

	TTh	Th	H	T	O
	3	1	6	7	2
–			7	3	2
	3	0	9	4	0

7. (a)

	TTh	Th	H	T	O
	①	②	②		
	3	2	9	5	0
	2	8	9	9	1
+	2	1	6	6	8
	8	3	6	0	9

(b)

	TTh	Th	H	T	O
	①	②	②		
	1	1	7	5	2
	5	1	3	8	1
+	2	9	5	0	1
	9	2	6	3	4

(c)

	TTh	Th	H	T	O
	②	②	②	①	
	5	3	9	5	0
	2	7	8	5	9
+		7	0	9	5
	8	8	9	0	4

(d)

	TTh	Th	H	T	O
	②	①	①	①	
	4	6	4	2	8
	2	3	0	2	0
	1	6	3	5	2
+		6	7	9	8
	9	2	5	9	8

(e)

	TTh	Th	H	T	O
	②	①	②	②	
	4	9	8	1	6
	2	7	0	9	8
	2	0	7	7	1
+		6	1	2	8
	1.0	3	8	1	3

(f)

	TTh	Th	H	T	O
	①	②	②	①	
	4	3	5	6	1
	3	6	9	3	2
	2	0	1	4	6
+			9	7	2
	10	1	6	1	1

Exercise-3.2

1. (a)

	H	T	O
	4	1	7
+	3	5	9
	7	7	6

Rounding off to nearest 100 →

	H	T	O
	4	0	0
+	4	0	0
	8	0	0

(b)

	H	T	O
	5	2	9
+	6	8	4
	12	1	3

Rounding off to nearest 100 →

	H	T	O
	5	0	0
+	7	0	0
	12	0	0

(c)

	H	T	O
	9	1	0
+	3	8	2
	12	9	2

Rounding off to nearest 100 →

	H	T	O
	9	0	0
+	4	0	0
	13	0	0

(d)

	H	T	O
	2	6	8
+	1	4	8
	4	1	6

Rounding off to nearest 100 →

	H	T	O
	3	0	0
+	1	0	0
	4	0	0

2. (a)

TTh	Th	H	T	O
4	3	7	6	1
2	5	8	3	2
3	4	9	8	3
10	4	5	7	6

Rounding off to nearest 1000 →

TTh	Th	H	T	O
4	4	0	0	0
2	6	0	0	0
3	5	0	0	0
10	5	0	0	0

(b)

TTh	Th	H	T	O
1	9	7	6	9
3	2	2	7	6
4	7	5	2	4
9	9	5	6	9

Rounding off to nearest 1000 →

TTh	Th	H	T	O
2	0	0	0	0
3	2	0	0	0
4	8	0	0	0
10	0	0	0	0

(c)

TTh	Th	H	T	O
3	4	9	8	9
2	5	2	8	6
3	3	5	0	4
9	3	7	7	9

Rounding off to nearest 1000 →

TTh	Th	H	T	O
3	5	0	0	0
2	5	0	0	0
3	4	0	0	0
9	4	0	0	0

3. (a) $91 - 82 = \boxed{9}$ → $90 - 80 = \boxed{10}$

(b) $100 - 82 = \boxed{18}$ → $100 - 80 = \boxed{20}$

(c) $56 - 29 = \boxed{27}$ → $60 - 30 = \boxed{30}$

(d) $42 - 37 = \boxed{05}$ → $40 - 40 = \boxed{00}$

(e) $100 - 56 = \boxed{44}$ → $100 - 60 = \boxed{40}$

(f) $161 - 39 = \boxed{122}$ → $160 - 40 = \boxed{120}$

Rounding off to nearest 10 →

4. (a)

	H	T	O
	3	5	9
–	1	5	3
	2	0	6

Rounding off to nearest 100 →

	H	T	O
	4	0	0
–	2	0	0
	2	0	0

(b)

	H	T	O
	6	2	9
–	1	9	2
	4	3	7

Rounding off to nearest 100 →

	H	T	O
	6	0	0
–	2	0	0
	4	0	0

(c)

	H	T	O
	8	2	8
–	4	1	2
	4	1	6

Rounding off to nearest 100 →

	H	T	O
	8	0	0
–	4	0	0
	4	0	0

(d)

	H	T	O
	5	6	6
–	4	1	5
	1	5	1

Rounding off to nearest 100 →

	H	T	O
	6	0	0
–	4	0	0
	2	0	0

5. (a)

	TTh	Th	H	T	O
	6	5	2	7	3
–	3	6	4	9	0
	2	8	7	8	3

Rounding off to nearest 100 →

	TTh	Th	H	T	O
	6	5	0	0	0
–	3	6	0	0	0
	2	9	0	0	0

(b)

	TTh	Th	H	T	O
	5	3	9	6	4
–	2	7	2	8	9
	2	6	6	7	5

Rounding off to nearest 100 →

	TTh	Th	H	T	O
	5	4	0	0	0
–	2	7	0	0	0
	2	7	0	0	0

(c)

	TTh	Th	H	T	O
	8	4	9	8	9
–	6	5	2	8	2
	1	9	7	0	7

Rounding off to nearest 100 →

	TTh	Th	H	T	O
	8	5	0	0	0
–	6	5	0	0	0
	2	0	0	0	0

Exercise-3.3

1. (a) 12568 + 4568 + 8976 = (12568 + 4568) + 8976 = 17136 + 8976 = 26112

	TTh	Th	H	T	O
	1	2	5	6	8
+	1	4	5	6	8
	1	7	1	3	6

→

	TTh	Th	H	T	O
	1	7	1	3	6
+		8	9	7	6
	2	6	1	1	2

(b) 23569 + 45698 + 78961 = (23569 + 45698) + 78961 = 69267 + 78961 = 148228

	TTh	Th	H	T	O
	2	3	5	6	9
+	4	5	6	9	8
	6	9	2	6	7

→

		TTh	Th	H	T	O
		6	9	2	6	7
+		7	8	9	6	1
	1	4	8	2	2	8

(c) 25698 + 75896 + 7968 = (25698 + 75896) + 7968 = 101594 + 7968 = 109562

	TTh	Th	H	T	O
	2	5	6	9	8
+	7	5	8	9	6
	10	1	5	9	4

→

	L	TTh	Th	H	T	O
	1	0	1	5	9	4
+			7	9	6	8
	1	0	9	5	6	2

(d) 32698 + 78961 + 47689 = (32698 + 78961) + 47689 = 111659 + 47689 = 159348

	TTh	Th	H	T	O
	3	2	6	9	8
+	7	8	9	6	1
	11	1	6	5	9

→

	L	TTh	Th	H	T	O
	1	1	1	6	5	9
+		4	7	6	8	9
	1	5	9	3	8	4

2. (a) (346 + 6784) + 7895 = 7130 + 7895 = 15025

	TTh	H	T	O
		3	4	6
+	6	7	8	4
	7	1	3	0

→

	TTh	Th	H	T	O
		7	1	3	0
+		7	8	9	5
	1	5	0	2	5

(b) 56742 + (5467 + 6786) = 56742 + 12253 = 68995

	TTh	Th	H	T	O
		5	4	6	7
+		6	7	8	6
	1	2	2	5	3

→

	L	TTh	Th	H	T	O
		5	6	7	4	2
+		1	2	2	5	3
		6	8	9	9	5

(c) (25691 + 45698) + 25788 = 71389 + 25788 = 97177

	TTh	Th	H	T	O
	2	5	6	9	1
+	4	5	6	9	8
	7	1	3	8	9

→

	TTh	Th	H	T	O
	7	1	3	8	9
+	2	5	7	8	8
	9	7	1	7	7

3. (a) (1077 + 1770) + 797
= 797 + (1077 + 1770)
⇒ 2847 + 797 = 797 + 2847
⇒ 3644 = 3644
Associative property of addition.

(b) 8765 + (5411 + 203)
= (8765 + 5411) + 203
⇒8765 + 5614 = 14176 + 203
⇒ 14379 = 14379
Associative property of addition.

4. Do yourself
5. No, it is valid for only addition and multiplication.

Exercise-3.4

1. Number of people invited = 45450
Number of men and woman = – 41056
Number of children participated = 4394

2. Number of eggs are collected in the form in the morning = 53683
Number of eggs are sent to the market in the evening. = –45890
Number of eggs are left in the form = 7793

3. Number of rubber plant trees = 60000
Number of rubber plant trees Fill down in a storm = –23564
Number of rubber plant trees were remaining in form = 36436

4. Number of books in store 1 = 27584
Number of books in store 2 = +59760
Number of total books in both store = 87344

5. Number of persons are recorded in zoo on Saturday = 53788
Number of persons are recorded in zoo on Sunday +23567
Number of persons are visited the zoo in these two days = 77355

6. The difference between two numbers is = 48290
If the smaller number is = +12563
The larger number is = 60853

7. Number of mangoes in first farm = 12658
Number of mangoes in second farm = 42369
Number of mangoes in third farm = +6754
Number of mangoes in three all farms 61781

8. A rengoli was made with flowers = 30000
Number of yellow flowers = –12356
Number of red flowers = 17644

BRUSH UP YOUR CONCEPTS

Missing digits

1.

	TTh	Th	H	T	O
	7	5	0	[0]	1
–	3	[6]	2	7	4
	[3]	8	[7]	2	[7]

2.

	TTh	Th	H	T	O
	5	2	5	[3]	[6]
–	[1]	[9]	[5]	5	7
	3	2	9	7	9

3.

	TTh	Th	H	T	O
	8	7	0	5	0
–	4	3	[2]	[2]	[5]
	4	3	8	2	5

4.

	TTh	Th	H	T	O
	3	[4]	1	[0]	6
+	[1]	6	[2]	8	8
	5	0	3	9	4

5.

	TTh	Th	H	T	O
	5	7	[2]	5	8
+	1	[9]	8	[9]	4
	7	7	1	5	2

6.

	TTh	Th	H	T	O
	4	7	0	5	0
+	4	3	[2]	[2]	[5]
	9	0	2	7	5

7.

	TTh	Th	H	T	O
	7	6	2	2	[0]
–	[3]	[6]	3	4	4
	3	9	8	7	6

8.

	TTh	Th	H	T	O
	3	4	1	0	6
–	1	6	2	8	8
	1	7	8	1	8

9.

	TTh	Th	H	T	O
	5	7	2	5	8
–	1	9	8	9	4
	3	7	3	6	4

Smallest and Greatest Numbers.

Sets	Smallest Number	Greatest Number	Difference	Sum
1.	2675	3872	3872 –2675 1197	2675 +3872 6547
2.	2640	4740	4740 –2640 2100	2640 +4740 7380

Decode

(1)
12354
+23423
35777

(2)
22839
+51100
73939

(3)
31412
+38367
69779

(4)
43389
+52510
95899

(5)
10354
+70241
80595

(6)
15338
+23460
38798

(7)
42336
+37351
79687

(8)
44513
+21375
65888

(9)
42827
+33130
75957

(10)
51242
+46531
97773

P	Y	T	H	A	G	O	R	A	S
1	2	3	4	5	6	7	8	9	10

Complex :

1. The sum of 25345 and 12032 = 37377

	TTh	Th	H	T	O
	2	5	3	4	5
+	1	2	0	3	2
	3	7	3	7	7

2. 34567 Plus 12421 = 46988

T	Th	Th	H	T	O
	3	4	5	6	7
+	1	2	4	2	1
	4	6	9	8	8

3. 25112 minus 12224 = 12888

T	Th	Th	H	T	O
	2	5	1	1	2
–	1	2	2	2	4
	1	2	8	8	8

4. 51443 less than 85331 = 33888

T	Th	Th	H	T	O
	8	5	3	3	1
–	5	1	4	4	3
	3	3	8	8	8

Challenge :

1. The difference between the biggest and smallest crowd is 80320

T	Th	Th	H	T	O
	9	0	5	5	6
–	1	0	2	3	6
	8	0	3	2	0

2. The foolball crowd was more than badmentan crowd was 80320

3.

	TTh	Th	H	T	O
	8	4	8	6	5
–	1	0	9	8	7
	7	3	8	7	8

Rounding off to nearest 100 →

	TTh	Th	H	T	O
	8	5	0	0	0
–	1	1	0	0	0
	7	4	0	0	0

Rounding off to nearest 100 →

4.

Sum

	TTh	Th	H	T	O
	2	1	6	9	6
+	1	0	9	8	7
	3	2	6	8	3

Dereferencer

	TTh	Th	H	T	O
	2	1	6	9	6
–	1	0	9	8	7
	1	0	7	0	9

4. Multiplication

Exercise-4.1

1. Fill in the blanks using multiplication property.

(a) $\underline{4532} \times 1 = 4532$

(b) $178 \times 0 = \underline{0}$

(c) $564 \times \underline{0} = 0$

(b) $436 \times 1 = \underline{436}$

(e) $789 \times \underline{1} = 789$

(f) $876 \times \underline{0} = 0$

2. Find the product.

(a) 4 3 2 × 1 0 0 = 4 3 2 0 0

(b) 2 1 4 × 1 0 = 2 1 4 0

(c) 8 8 8 × 1 0 0 = 8 8 8 0 0

(b) 8 4 2 × 1 0 = 8 4 2 0

(e) 3 4 6 × 1 0 = 3 4 6 0

(f) 7 6 3 × 1 0 0 = 7 6 3 0 0

(g) 9 2 0 × 1 0 0 = 9 2 0 0 0

(h) 4 8 6 × 1 0 0 = 4 8 6 0 0

(i) 5 2 3 7 × 1 0 0 0 = 5 2 3 7 0 0 0

(j) 1 0 0 0 × 3 3 = 3 3 0 0 0

(k) 1 0 0 0 × 2 2 3 = 2 2 3 0 0 0

(l) 1 0 0 0 × 5 5 = 5 5 0 0 0

Exercise-4.2

1. Find the product of the following.

(a)

Th	H	T	O	
		3		
	×	5	6	
	1	3	5	
	2	8	0	←56 × 5 = 280
+ 1	6	8	0	←56 × 30 = 1680
1	9	6	0	←56 × 35 = 1960

(b)

Th	H	T	O	
		2		
		6	3	
	×	3	8	
	5	0	4	←63 × 8 = 504
+ 1	8	9	0	←63 × 30 = 1890
2	3	9	4	←63 × 38 = 2394

(c)

Th	H	T	O	
	2	1		
		8	8	
	×	3	2	
	1	7	6	←88 × 2 = 176
+	26	4	0	←88 × 30 = 2640
	28	1	6	←88 × 32 = 2816

(d)

Th	H	T	O	
	3			
		5		
		7	9	
	×	4	6	
	4	7	4	←79 × 6 = 474
+ 3	1	6	0	←79 × 40 = 3160
3	6	3	4	←79 × 46 = 3634

(e)

Th	H	T	O	
		1		
1	4	1	.	
	1	8	2	
	×	2	5	
1	4	1	0	←82 × 5 = 410
+ 1	6	4	0	←82 × 20 = 1640
2	0	5	0	←82 × 25 = 2050

(f)

Th	H	T	O	
		1		
		4	4	
	×	3	0	
		0	0	←44 × 0 = 00
+ 1	3	2	0	←44 × 30 = 1320
1	3	2	0	←44 × 30 = 1320

2. Find the product of the following.

(a)

TTh	Th	H	T	O	
		7	2	9	
		×	2	9	
	6	5	6	1	←729 × 9 = 6561
+ 1	4	5	8	0	←729 × 20 = 14580
2	1	1	4	1	←729 × 29 = 21141

(b)

TTh	Th	H	T	O	
		9	0	4	
		×	2	5	
1	4	5	2	0	←904 × 5 = 4520
+ 1	8	0	8	0	←904 × 20 = 18080
2	2	6	0	0	←904 × 25 = 22600

(c)

TTh	Th	H	T	O	
		8	0	6	
		×	2	9	
1	7	2	5	4	←806 × 9 = 7254
+ 1	6	1	2	0	←806 × 20 = 16120
2	3	3	7	4	←806 × 29 = 23374

(d)

TTh	Th	H	T	O	
		9	2	5	
	^{1}	$_{1}\times$	7	3	
	2	7	7	5	←925 × 3 = 2775
+ 6	4	7	5	0	←925 × 70 = 64750
6	7	5	2	5	←925 × 73 = 67525

(e)

TTh	Th	H	T	O	
		7	5	6	
		$_{1}\times$	4	7	
	5	2	9	2	←756 × 7 = 5292
+ 3	0	2	4	0	←756 × 40 = 30240
3	5	5	3	2	←756 × 47 = 35532

(f)

TTh	Th	H	T	O	
		8	0	5	
		×	8	5	
	4	0	2	5	←805 × 5 = 4025
6	4	4	0	0	←805 × 80 = 64400
6	8	4	2	5	←805 × 85 = 68425

3. Find the product of the following.

(a)

TTh	Th	H	T	
		2	4	
	×	9	[6]	
	1	4	4	←24 × [6] = 144
[2]	[1]	[6]	0	←24 × 90 = 2160
2	3	0	4	←24 × 9[6] = 2304

(b)

TTh	Th	H	T	
		3	3	
	×	[4]	7	
	2	3	1	←33 × 7 = 231
+ 1	[3]	[2]	[0]	←33 × [40] = 1320
1	5	5	1	←33 × 47 = 1551

(c)

TTh	Th	H	T	
		[6]	6	
	$_{1}\times$	3	4	
1	[2]	[6]	[4]	←66 × 4 = 264
+ 1	9	8	0	←66 × 30 = 1980
2	2	4	4	←66 × 34 = 2244

4. (a)
624
× 392
1248
56160
+ 187200
[244608]

(b)
715
× 245
3575
28600
+ 143000
[175175]

(c)
877
× 126
5262
17540
+ 87700
[110502]

(d)
542
× 458
4336
27100
+ 216800
[248236]

(e)
784
× 185
3920
62720
+ 78400
[145040]

(f)
985
× 465
4925
59100
+ 394000
[458025]

5. (a)

TTh	Th	H	T	O
	3	7	7	8
			×	2
	7	5	5	6

(b)

TTh	Th	H	T	O
	4	0	7	7
			×	9
3	6	6	9	3

(c)

TTh	Th	H	T	O
	5	1	8	8
			×	4
2	0	7	5	2

(d)

TTh	Th	H	T	O
	7	1	5	7
			×	3
2	1	4	7	1

(e)

TTh	Th	H	T	O
	8	4	7	5
			×	5
4	2	3	7	5

(f)

TTh	Th	H	T	O
	9	1	1	1
			×	6
5	4	6	6	6

(g)

TTh	Th	H	T	O
	9	0	8	0
			×	9
8	1	7	2	0

(h)

TTh	Th	H	T	O
	6	0	1	4
			×	8
4	8	1	1	2

(i)

TTh	Th	H	T	O
	3	7	3	0
			×	7
2	6	1	1	0

Exercise-4.3

1. Total no. of students = 123

Each students collected = 15 sea shells

123 students collected = 123 × 15

= 1845 sea shells

2. Number of sheets of paper bought for school for each box = 59

Number of sheets of paper bought for 831 boxes

= 8 3 1 × 59

7 4 7 9

+ 4 1 5 5 0

4 9 0 2 9

3. For every student,

Cafeteria planned to bake cookies = 3

No. of students in the school = 715

No . of cookies need to bake = 7 1 5 × 3

2 1 4 5

4. Each restaurants will need employees = 27

No. of pizza depot new restaurants = 31

No. of employee pizza depot need

= 2 7 × 31

2 7

+ 8 1 0

8 3 7

5. No. of pencils made by a machine in 1 sec. = 761

No. of pencils made by a machine in 23 sec.

= 7 6 1 × 2 3

2 2 8 3

+ 1 5 2 2 0

1 7 5 0 3

6. No. of rows of glass beads in the bead shop = 25

No. of glass beads in bead shop = 320 in eahc row

No. of glass beads in the shop = 3 2 0 × 2 5

1 6 0 0

+ 6 4 0 0

8 0 0 0

BRUSH UP CONCEPTS

G 32 ×48 256 +1280 1536	T 67 ×14 268 +670 938	S 53 ×27 371 +1060 1431	I 96 ×52 192 +4800 4992	A 83 ×33 249 +2490 2739
M 39 ×28 312 +780 1092	E 56 ×15 280 +560 840	N 83 ×24 332 +1660 1992	R 75 ×46 450 +3000 3450	H 84 ×62 168 +5040 5208

What horses like to stay up lale ?

N	I	G	H	T	M
1992	4992	1536	5208	938	1092

A	R	E	S
2739	3450	840	1431

Missing bores

Fill in the bones

(1) 27 × 20 = 540 (2) 12 × 80 = 960

(3) 56 × 20 = 1120 (4) 93 × 70 = 6510

(5) 43 × 50 = 2150 (6) 54 × 60 = 3240

(7) 24 × 70 = 1680 (8) 30 × 92 = 2760

Check the calculator

(1) 315 × 9 = 2835 (2) 456 × 4 = 1824

(3) 675 × 5 = 3375 (4) 764 × 7 = 5348

Match

1. (c) **2.** (e) **3.** (a) **4.** (b) **5.** (d).

Pattern

1. 14 × 200 = 2800
14 × 300 = 4200
14 × 400 = 5600

2. 15 × 200 = 3000
15 × 300 = 4500
15 × 400 = 6000

3. 25 × 200 = 5000
25 × 300 = 7500
25 × 400 = 10000

4. 27 × 200 = 5400
27 × 300 = 8100
27 × 400 = 10800

5. 39 × 200 = 7800
39 × 300 = 11700
39 × 400 = 15600

6. 48 × 200 = 9600
48 × 300 = 14400
48 × 400 = 19200

7. 50 × 200 = 10000
50 × 300 = 15000
50 × 400 = 20000

Car Race Challenge.

We can put x cross in place of zero (0) in unit digit, ten's digit and so on.

(1) 48 × 95 = 240 432 × 4560 (2) 322 × 7 = 2254

(3) $122 \times 8 = 976$ (4) $59 \times 17 = 413 + 590 = 1003$

(5) $311 \times 6 = 1866$ (6) $89 \times 73 = 267 + 6230 = 6497$

(7) $221 \times 9 = 1989$ (8) $34 \times 52 = 68 + 1700 = 1768$

5. Division

Exercise-5.1

1. (a) 65,895 ÷ 1 = 65,895
(b) 56,789 ÷ 1 = 56,789
(c) 0 ÷ 82,892 = 0
(d) 34,726 ÷ 34,726 = 1
(e) 0 ÷ 23,694 = 0
(f) 19,532 ÷ 19,532 = 1

2. (a) 85 ÷ 10, Q = 8, R = 5
(b) 350 ÷ 10, Q = 35, R = 0
(c) 187 ÷ 10, Q = 18, R = 7
(d) 4561 ÷ 10, Q = 456, R = 1
(e) 69874 ÷ 10, Q = 6987, R = 4
(f) 800 ÷ 10, Q = 80, R = 0
(g) 5000 ÷ 10, Q = 500, R = 0
(h) 90 ÷ 10, Q = 9, R = 0

3. (a) 306 ÷ 100, Q = 3, R = 6
(b) 600 ÷ 100, Q = 6, R = 0
(c) 6985 ÷ 100, Q = 69, R = 85
(d) 35,784 ÷ 100, Q = 357, R = 84
(e) 8000 ÷ 100, Q = 80, R = 0
(f) 95000 ÷ 100, Q = 950, R = 0
(g) 896 ÷ 100, Q = 8, R = 69
(h) 5698 ÷ 100, Q = 56, R = 98

4. (a) 8654 ÷ 1000, Q = 8, R = 654
(b) 9000 ÷ 1000, Q = 9, R = 0
(c) 63000 ÷ 1000, Q = 63, R = 0
(d) 78965 ÷ 1000, Q = 78, R = 965
(e) 98563 ÷ 1000, Q = 98, R = 563
(f) 78000 ÷ 1000, Q = 78, R = 0
(g) 52369 ÷ 1000, Q = 52, R = 369
(h) 10000 ÷ 1000, Q = 10, R = 0

Exercise-5.2

1. (a) $15\overline{)645}$ → 43; -60; 45; -45; 0 ∴ Q = 43, R = 0

(b) $18\overline{)605}$ → 33; -54; 65; -54; 11 ∴ Q = 33, R = 11

(c) $16\overline{)587}$ → 36; -48; 107; -96; 11 Q = 36, R = 11

(d) $12\overline{)322}$ → 26; -24; 82; -72; 10 Q = 26, R = 10

(e) $11\overline{)313}$ → 28; -22; 93; -88; 5 Q = 28, R = 5

(f) $13\overline{)855}$ → 65; -78; 75; -65; 10 Q = 65, Q = 10

(g) $17\overline{)565}$ → 33; -51; 55; -51; 4 Q = 33, R = 4

(h) $14\overline{)706}$ → 50; -70; 06 Q = 50, R = 6

2. (a) $22\overline{)733}$ → 33; -66; 73; -66; 7 Q = 33, R = 7

(b) $48\overline{)627}$ → 13; -48; 147; -144; 3 Q = 13, R = 3

(c) $66\overline{)715}$ → 10; -66; 55 Q = 10, R = 55

(d) $74\overline{)158}$ → 2; 148; 10 Q = 2, R = 10

(e) $83\overline{)665}$ → 8, −664, 1

(f) $37\overline{)631}$ → 17, −37, 261, −259, 2

Q = 8, R = 1 Q = 17, R = 2

(g) $56\overline{)352}$ → 6, −336, 16

(h) $78\overline{)238}$ → 3, −234, 04

Q = 6, R = 16 Q = 3, R = 4

3. (a) $7\overline{)8553}$ → 1221, 7, 15, −14, 15, −14, 13, −7, 6

(b) $3\overline{)5454}$ → 1818, −3, 24, −24, 5, −3, 24, −24, 0

Q = 1221, R = 6 Q = 1818, R = 0

(c) $9\overline{)8213}$ → 912, −81, 11, −9, 23, −18, 5

(d) $6\overline{)8313}$ → 1385, −6, 23, −18, 51, −48, 33, −30, 3

Q = 912, R = 5 Q = 1385, R = 3

(e) $2\overline{)2224}$ → 1112, −2, 2, −2, 2, −2, 4, −4, 0

(f) $5\overline{)8332}$ → 1666, −5, 33, −30, 33, −30, 32, −30, 2

Q = 1112, R = 0 Q = 1666, R = 2

(g) $4\overline{)4467}$ → 1116, −4, 4, −4, 6, −4, 27, −24, 3

(h) $9\overline{)1222}$ → 135, −9, 32, −27, 52, −45, 7

Q = 1116, R = 3 Q = 135, R = 7

Exercise-5.3

1. (a) $595\overline{)643}$ → 1, −595, 48

Dividend = Quotient × Div. + Rem.

643 = 1 × 595 + 48

= 643 = correct

(b) $5\overline{)676}$ → 135, −5, 17, −15, 26, −25, 1

Dividend = Quotient × Div. + Rem.

676 = 675 + 1

= 135 × 5 + 1

1818 = 676 = 675 + 1

= 676 = 676 = Correct

(c) $6\overline{)8313}$ → 1385, −6, 23, −18, 51, −48, 33, −30, 3

$8313 = 1385 \times 6 + 3$
$= 8310 + 3$
$= 8313$
$=$ Correct

(d) $3\overline{)5454}$ $\quad 1818$

-3
24
-24
05
-3
24
-24
0

Dividend = Qu × div. + Rem
$\Rightarrow 5454 = 1818 \times 3 + 0$
$= 5454 + 0$
$= 5454$
$=$ Correct

2. (a) $35\overline{)678}$ $\quad 19$

-35
328
-315
13

Qu. = 19, Rem = 13
Dividend = Qu × div. + Rem
$\Rightarrow 678 = 19 \times 35 + 13$
$= 665 + 13$
$= 678 =$ correct

(b) $15\overline{)645}$ $\quad 43$

-60
45
-45
0

Qu. = 43, Rem = 0
Dividend = Qu × div. + Rem
$\Rightarrow 645 = 43 \times 15 + 0$
$\Rightarrow 645 = 645 + 0$
$\Rightarrow 645 = 645 =$ correct

(c) $58\overline{)777}$ $\quad 13$

-58
197
-174
23

Qu. = 13, Rem = 23
Dividend = Qu × div. + Rem
$\Rightarrow 777 = 13 \times 58 + 23$
$= 777 =$ correct

(d) $32\overline{)803}$ $\quad 25$

-64
163
-160
3

Qu. = 25, Rem = 3
Dividend = Qu × div. + Rem
$\Rightarrow 803 = 25 \times 32 + 3$
$\Rightarrow 803 = 803$

(e) $46\overline{)564}$ $\quad 12$

-46
104
-92
12

Qu. = 12, Rem = 12
Dividend = Qu × div. + Rem
$\Rightarrow 564 = 12 \times 46 + 12$
$\Rightarrow 564 = 564 =$ correct

(f) $1\overline{)576}$ $\quad 576$

-5
07
-7
6
-6
0

Qu. = 576, Rem = 0
Dividend = Qu × div. + Rem
$\Rightarrow 576 = 576 \times 1 + 0$
$= 576 =$ correct

(g)
$$\begin{array}{r} 26 \\ 12\overline{)\ 322} \\ -24 \\ \hline 82 \\ -72 \\ \hline 10 \end{array}$$

Qu. = 25, Rem = 10

Dividend = Qu × div. + Rem

$\Rightarrow$ 322 = 12 × 26 + 10

= 312 + 10

= 322

(h)
$$\begin{array}{r} 10 \\ 28\overline{)\ 288} \\ -28 \\ \hline 08 \end{array}$$

Qu. = 10, Rem = 8

Dividend = Qu × div. + Rem

$\Rightarrow$ 288 = 10 × 28 + 8

= 288

Exercise-5.4

1. No of pieces a bag of candy containing opened by carry = 126

Since, same no. of pieces give to each of his guests = 42

No. of pieces obtained by each persons = 126 ÷ 42 = 3

$$\begin{array}{r} 03 \\ 42\overline{)126} \\ -126 \\ \hline 0 \end{array}$$

2. Pancake restaurant served = 348 pancakes

If an equal number of pancakes eat by customers = 87

No of each person eat pancakes = 348 ÷ 87 = 4

$$\begin{array}{r} 4 \\ 87\overline{)\ 348} \\ -348 \\ \hline 0 \end{array}$$

3. No, of books a library has = 4590

No. of shelves for these books arranged = 27

No. of total books in each shelf = 4590 ÷ 27 = 170

$$\begin{array}{r} 170 \\ 27\overline{)\ 4590} \\ -27 \\ \hline 189 \\ -189 \\ \hline 0 \\ 0 \\ \hline 0 \end{array}$$

4. No, of guests hosted by a party = 798

No, of guests can have by a each table = 7

No. of tables are needed to arrange for the gusts = 798 ÷ 7 =114

$$\begin{array}{r} 114 \\ 7\overline{)\ 798} \\ -7 \\ \hline 9 \\ -7 \\ \hline 28 \\ -28 \\ \hline 0 \end{array}$$

5. No. of jeans stocks by a shop = 528

No. of piles are stored by jeans = 54

No. of piles should the shop ape = 528 ÷ 44 = 12

$$\begin{array}{r} 12 \\ 44\overline{)\ 528} \\ -44 \\ \hline 88 \\ -88 \\ \hline 0 \end{array}$$

6. No. of cookies for a party bought by Raj = 6634

No. of boxes come by cookies = 31

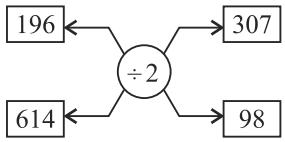
No. of boxes of cookies bought by him = 6634 ÷ 31 = 214

$$\begin{array}{r} 214 \\ 31\overline{)\ 6634} \\ -62 \\ \hline 43 \\ -31 \\ \hline 124 \\ -124 \\ \hline 0 \end{array}$$

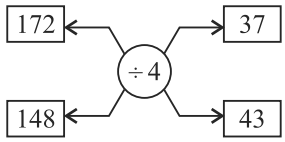
Brush Up Your Concepts

Missing boxes

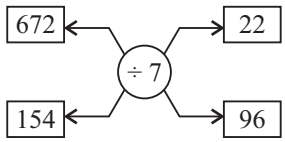
1.



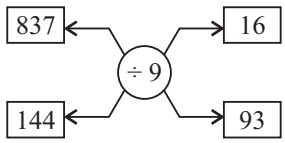
2.



3.



4.



Multiplication and Devision

1. 4 × 8 = 32
40 × 80 = 3200
3200 ÷ 40 = 80
320 ÷ 8 = 40

2. 7 × 6 = 42
70 × 60 = 4200
4200 ÷ 70 = 60
420 ÷ 6 = 70

3. 8 × 8 = 64
80 × 80 = 6400
6400 ÷ 80 = 80
640 ÷ 8 = 80

4. 9 × 3 = 27
90 × 30 = 2700
2700 ÷ 90 = 30
270 ÷ 3 = 90

Mental maths

1. No. of biscuits need by you = 80
In a pack no. of biscuits = 5
No. of packs need by you = 80 ÷ 5 = 16
I need to bay 16 packs of chocolate biscuits.

2. No. of stickers need you = 96
No. of stickers put on a page = 6
No. of pages can you fill = 96 ÷ 6 = 16
I can fill 16 pages

3. No. of children can fit in a canoe = 4
For 60 children no. of canoes you need = 60
For 60 children I need canoes = 60 ÷ 4 = 15
I need 15 canoes for 60 children.

4. No. of chairs in a hall = 95
No. of chairs in a group = 5
No. of groups of chairs will be formed
= 95 ÷ 5 = 19
19 groups of chairs will be formed.

6. Factors and multiples

Exercise-6.1

1. Factors of 12 = 1, 2, 3, 4, 6, 12
Factors of 24 = 1, 2, 3, 4, 6, 8, 12, 24
Factors of 28 = 1, 2, 4, 7, 14, 28
Factors of 38 = 1, 2, 19, 38
Factors of 42 = 1, 2, 3, 6, 7, 14, 21, 42

2. Factors of 34 = 1, 2, 17, 34

3. Required Factors of 45 = 15 (Which liss between 10 and 30)

4. In 8 × 9 = 72, the numbers 8 and 9 are the Factors of 72.

Exercise-6.2

1. Tow multiples of 6 between 40 and 50 are 42,48.

2. Tow multiples of 8 between 60 and 75 are 64 and 72.

3. First seven multiples of 7 are 7, 14, 21, 28, 35

4. Multiples of 2 = 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50....
Multiples of 3 = 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51
First six common multiples of 2, 3 are multiples 2 × 3 i.e. 6 = 6, 12, 18, 24, 30, 36

5. Six multiples of 10 are 10, 20, 30, 40, 50, 60

6. First five multiples of 12 are 12, 24, 36, 48, 60

BRUSH UP YOUR CONCEPTS

Number	Multiple of 30	Multiple of 70
150	Yes	No
140	No	Yes
200	No	No
120	Yes	No
210	Yes	Yes
350	No	Yes
420	Yes	Yes

Factors

1. Factors of 100 = 1, 2, 4, 5, 10, 20, 25, 50, 100.

2. Multiple of seven between 1 and 100 are 7, 14, 21, 28, 35, 42, 49, 56, 63, 70 77, 84, 91, 98.

Riddle.

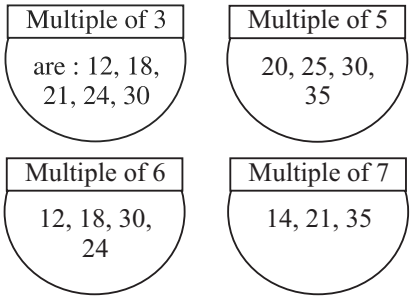
1. Multiples of 3 between 40, and 50, are: 42, 45, 48

2. Multiples of 8 between 50 and 70 are 56, 64

3. Common multiples 6 and 4 less than 30 are 12, 24

Multiples of challenge:

20 12 14 25 18 30 21 24 35



7. Fractions

Exercise-7.1

1. Solve the fractions.

(a) $\frac{2}{3}$ of $15 = \frac{2}{3} \times 15 = 2 \times 5 = 10$

(b) $\frac{5}{7}$ of $70 = \frac{5}{7} \times 70 = 5 \times 10 = 50$

(c) $\frac{3}{4}$ of $36 = \frac{3}{4} \times 36 = 3 \times 9 = 27$

(d) $\frac{2}{7}$ of $56 = \frac{2}{7} \times 56 = 2 \times 8 = 16$

(e) $\frac{5}{6}$ of $66 = \frac{5}{6} \times 66 = 5 \times 11 = 55$

(f) $\frac{3}{5}$ of $60 = \frac{3}{5} \times 60 = 3 \times 12 = 36$

(g) $\frac{9}{11}$ of $99 = \frac{9}{11} \times 99 = 9 \times 9 = 81$

(h) $\frac{3}{7}$ of $70 = \frac{3}{7} \times 70 = 3 \times 10 = 30$

(i) $\frac{1}{4}$ of $48 = \frac{1}{4} \times 48 = 12$

(j) $\frac{7}{12}$ of $96 = \frac{7}{12} \times 96 = 7 \times 8 = 56$

(k) $\frac{5}{12}$ of $72 = \frac{5}{12} \times 72 = 5 \times 6 = 30$

(l) $\frac{5}{9}$ of $54 = \frac{5}{9} \times 54 = 5 \times 6 = 30$

2. The distance covered by Gita to reach home = 7 km

The distance covered by Gita by bus = 5 km

The distance covered by walking by her = 2 km

Fraction of kilometres travels by bus = $\frac{5}{7}$

3. No. of total roses = 15

No. of roses of yellow colour = 6

No. of roses of red colour = 9

Fraction of red roses = $\frac{9}{15} = \frac{3}{5}$

4. No. of strawberry ice creams Nancy has = 6

No. of Chocolate ice creams Nancy has = 4

Fraction of the strawberry icecream = $\frac{6}{10}$

5. Total no stickers collected by Johny = 36

No. of stickers gave to his sister = 18

No. of stickers gave to his Friends = 5

No. of stickers gave to his teacher = 36 – (18+5)

= 36 – 23

= 13

No. of stickers gave finally to his teacher = $\frac{13}{36}$

6. No. of blue markers has a teacher = 11

No. of black markers has a teacher = 5

No. of red markers has a teacher = 7

Fraction of black markers can be found on teacher desk = $\frac{5}{11+5+7} = \frac{5}{23}$

7. Total no. of building blocks in a bag has Aditi = 52

No. of building blocks to build a house by Aditi = 38

Fraction of building blocks remains unused = $\frac{52-38}{52}$

= $\frac{14}{52}$

8. Total no. of pens has Renu = 15

No. of blue pens = 7

No. of red pens = 3

No. of yellow pens = 5

Fraction of blue pens = $\frac{7}{15}$

9. Total no. of hours spent by Annie = 6

The time spent doing activities by Annie = Half of 6 = 3 hours

10. Do, Yourself

Exercise-7.2

1. (a) $\frac{16}{7}$ = improper (b) $3\frac{4}{9}$ = mixed

(c) $7\frac{8}{11}$ = mixed (d) $\frac{4}{7}$ = Proper

(e) $\frac{7}{4}$ = Improper (f) $13\frac{24}{27}$ = mixed

(g) $\frac{11}{7}$ = Improper (h) $\frac{3}{5}$ = Proper

(i) $\frac{6}{7}$ = Proper (j) $5\frac{10}{14}$ = mixed

2. (a) $3\frac{4}{7}$ (b) $\frac{11}{37}$

3. Proper fractions:

(a) $\frac{3}{7}, \frac{18}{23}, \frac{26}{51}, \frac{11}{16}$ (d) $\frac{34}{45}, \frac{89}{98}, \frac{45}{54}, \frac{67}{87}$

Improper fractions:

(b) $\frac{19}{12}, \frac{12}{5}, \frac{35}{23}, \frac{27}{19}$

(c) $\frac{45}{43}, \frac{56}{45}, \frac{78}{36}, \frac{98}{79}$

Exercise-7.3

1. (a) $\frac{7}{8}$ is an improper d fraction = False,

$\frac{7}{8}$ is a proper fraction.

(b) $\frac{13}{14}$ is a proper fraction = True

(c) $\frac{4}{15}, \frac{5}{15}, \frac{6}{15}$ are unlike fractions = False

$\frac{4}{15}, \frac{5}{15}, \frac{6}{15}$ are like fractions

(d) $\frac{1}{2}, \frac{5}{10}, \frac{11}{22}$ are equivalent fractions

= True $\frac{1}{2}, \frac{5}{10}, \frac{11}{22}$ are proper fractions.

(e) $\frac{1}{12}, \frac{14}{12}, \frac{11}{22}$ are unit fractions = False

$\frac{1}{12}$ is proper unit fractions but $\frac{14}{12}$, $\frac{26}{12}$ are improper fractions.

2. (a) $\frac{9}{10}, \frac{8}{10}$ (ii) Like Fractions.

(b) $2\frac{1}{9}, 1\frac{1}{3}$ (i) Mixed Fractions.

(c) $\frac{14}{5}, \frac{12}{11}$ (iv) Unlike Fractions.

(d) $\frac{11}{22}, \frac{1}{2}$ (iii) Equivalent Fractions.

3. (a) $\frac{33}{22} \square \frac{26}{12}$

$\Rightarrow$ $33 \times 12 = 396$

and $22 \times 26 = 572$

But $572 > 396$

So, $\frac{26}{12} \boxed{<} \frac{33}{22}$

(b) $\frac{2}{9} \square \frac{18}{4}$

$\Rightarrow$ $2 \times 4 = 8$

and $18 \times 9 = 162$

$\because$ $162 > 8$

$\frac{2}{9} \boxed{<} \frac{18}{4}$

(c) $\frac{3}{5} \square \frac{12}{20}$

$\Rightarrow$ $2 \times 20 = 60$

and $5 \times 12 = 60$

$\frac{3}{5} \boxed{=} \frac{12}{20}$

So,

(d) $\frac{27}{45} \square \frac{9}{15}$

$\Rightarrow$ $27 \times 15 = 405$

and $45 \times 9 = 405$

So, $\frac{27}{45} \boxed{=} \frac{9}{15}$

(e) $\frac{40}{100} \square \frac{4}{10} = \frac{4}{10} \boxed{=} \frac{4}{10}$

(f) $\frac{4}{6} \square \frac{8}{10}$

$\Rightarrow$ $4 \times 10 = 40$

and $6 \times 8 = 48$

$\because$ $48 < 40$

$\therefore$ $\frac{4}{6} \boxed{<} \frac{8}{10}$

(g) $\frac{9}{4} \boxed{>} \frac{27}{15}$

$\Rightarrow$ $9 \times 15 = 135$

and $27 \times 4 = 108$

$\because$ $135 < 108$

$\therefore$ $\frac{9}{4} \boxed{>} \frac{27}{15}$

(h) $\frac{12}{8} \square \frac{6}{5}$

$\Rightarrow$ $12 \times 5 = 60$

and $8 \times 6 = 48$

$\because$ $60 > 48$

$\therefore$ $\frac{12}{8} \boxed{>} \frac{6}{5}$

(i) $\frac{5}{15} \square \frac{1}{3}$

$\Rightarrow$ $5 \times 3 = 15$

and $15 \times 1 = 15$

$\because$ $15 = 15$

$\therefore$ $\frac{5}{15} \boxed{=} \frac{1}{3}$

(j) $\frac{2}{18} \square \frac{1}{9}$

$\Rightarrow$ $2 \times 9 = 18$

and $18 \times 1 = 18$

$\because$ $18 = 18$

$\therefore$ $\frac{2}{18} \boxed{=} \frac{1}{9}$

(k) $\frac{7}{2} \square \frac{21}{6}$

$\Rightarrow$ $7 \times 6 = 42$

and $2 \times 21 = 42$

$\because$ $42 = 42$

$\therefore$ $\frac{7}{2} \boxed{=} \frac{21}{6}$

(l) $\frac{7}{3} \square \frac{16}{6}$

$\Rightarrow \quad 7 \times 6 = 42$

and $\quad 3 \times 16 = 48$

$\because \quad 42 < 48$

$\therefore \quad \frac{7}{3} \boxed{<} \frac{16}{6}$

4. (a) $\frac{11\times3}{2\times3} = \frac{33}{\boxed{6}}$ (b) $\frac{12\div2}{16\div2} = \frac{\boxed{6}}{8}$

(c) $\frac{39\div3}{12\div3} = \frac{13}{\boxed{4}}$

(d) $\frac{10}{3} = \frac{\boxed{30}}{9}$

$\because \quad 10 \times 3 = 30$

and $\quad 3 \times 3 = 9$

(e) $\frac{6}{\boxed{9}} = \frac{24}{36}$

$\because \quad 9 \times 4 = 36$

$6 \times 4 = 24$

(f) $2 = \frac{20}{10}$

(g) $\frac{\boxed{40}}{15} = \frac{8}{3}$

$\because \quad 15 \div 3 = 5$

So, $\quad 40 \div 5 = 8$

(h) $\frac{35}{25} = \frac{\boxed{7}}{5}$

$\because \quad 25 \div 5 = 5$

So, $\quad 35 \div 5 = 7$

(i) $\frac{\boxed{8}}{14} = \frac{16}{28}$

$\Rightarrow \quad 16 \times 14 = 28 \times \square$

$\Rightarrow \quad \square = \frac{16\times14}{28}$

$\Rightarrow \quad \square = 8$

5. (a) $\frac{4}{7} = \frac{4}{7} \times \frac{2}{2} = \frac{8}{14}$

$\frac{4\times3}{7\times3} = \frac{12}{21}$

So, $\frac{8}{14}$ and $\frac{12}{21}$ are two equivalent fractions of $\frac{4}{7}$

(b) $\frac{2}{5} = \frac{2\times2}{5\times2} = \frac{4}{10}$

and $\frac{2}{5} \times \frac{3}{3} = \frac{6}{15}$

So, $\frac{4}{10}$ and $\frac{6}{15}$ are two equivalent fractions of $\frac{2}{5}$

(c) $\frac{3}{8} = \frac{3\times2}{8\times2} = \frac{6}{16}$

and $\frac{3}{8} = \frac{3\times3}{8\times3} = \frac{9}{24}$

So, $\frac{6}{16}$ and $\frac{9}{24}$ are two equivalent fractions of $\frac{3}{8}$

(d) $\frac{2}{9} = \frac{2\times2}{9\times2} = \frac{4}{18}$

and $\frac{2\times3}{9\times3} = \frac{6}{27}$

So, $\frac{4}{18}$ and $\frac{6}{27}$ are two equivalent fractions of $\frac{2}{9}$

(e) $\frac{5}{6} = \frac{5\times2}{6\times2} = \frac{10}{12}$

$\frac{5}{6} = \frac{5\times3}{6\times3} = \frac{15}{18}$

So, $\frac{10}{12}$ and $\frac{15}{18}$ are two equivalent fractions of $\frac{5}{6}$

6. (a) $\frac{4}{6} = \frac{\boxed{8}}{12}$ (b) $\frac{1}{9} = \frac{\boxed{2}}{18}$

(c) $\frac{5}{6} = \frac{\boxed{10}}{12}$ (d) $\frac{5}{12} = \frac{\boxed{25}}{60}$

(e) $\frac{2}{5} = \frac{\boxed{8}}{20}$ (f) $7 = \frac{\boxed{42}}{6}$

(g) $6 = \frac{\boxed{66}}{11}$ (h) $4 = \frac{28}{7}$

BRUSH UP YOUR CONCEPTS

Comprehension math

1. Vini bought a bag of 10 do-nuts

He ate half the number of do-nuts kept in the bag.

Numbers of do-nuts did he eat = $\frac{10}{2} = 5$

2. No. of cookies bought by Sara = 30

She eat half the number of cookies kept in the bag

Numbers of cookies did sara eat = $\frac{30}{2}$

$= 15$

3. No. of chocolates bought by Anand = 60

He ate $\frac{2}{3}$ of the chocolates

No. chocolates be eaten = $60 \times \frac{2}{3}$

= 40 chocolates

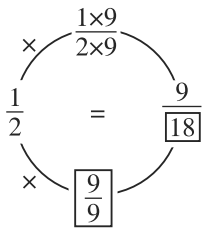
No. of chocolates are left = 60 – 40 = 20

4. No. of fruits bought by Sonia = 50

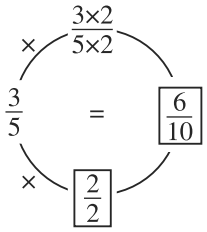
No. of fruits eaten by her = $50 \times \frac{1}{5} = 10$

No. of fruits are left = 50 – 10 = 40

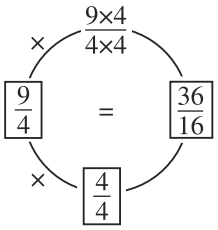
Equivalent Fractions



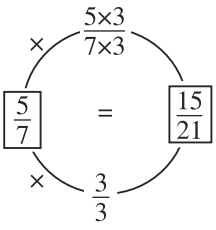
$\frac{1}{2} \times \frac{9}{9} = \frac{9}{18}$



$\frac{3 \times 2}{5 \times 2} = \frac{6}{10}$



$\frac{5 \times 4}{4 \times 4} = \frac{36}{16}$



$\frac{5 \times 3}{7 \times 3} = \frac{15}{21}$

Missing Numbers

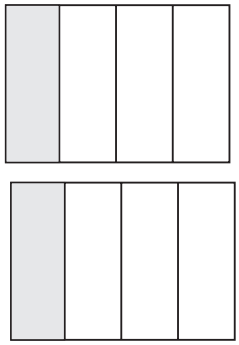
1. $\frac{1}{4} = \frac{3}{\boxed{12}} = \frac{\boxed{5}}{20} = \frac{7}{\boxed{28}} = \frac{9}{\boxed{36}} = \frac{11}{\boxed{44}} = \frac{13}{\boxed{52}} = \frac{15}{\boxed{60}}$

2. $9 = \frac{\boxed{18}}{2} = \frac{27}{\boxed{3}} = \frac{\boxed{36}}{4} = \frac{\boxed{45}}{5} = \frac{54}{\boxed{6}} = \frac{\boxed{63}}{7} = \frac{\boxed{72}}{8}$

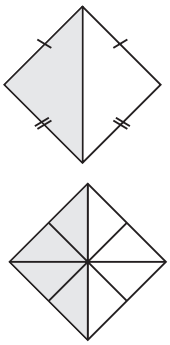
3. $\frac{7}{6} = \frac{\boxed{14}}{12} = \frac{21}{\boxed{18}} = \frac{\boxed{28}}{24} = \frac{35}{\boxed{30}} = \frac{\boxed{42}}{36} = \frac{49}{\boxed{42}} = \frac{\boxed{56}}{48}$

4. $\frac{3}{8} = \frac{6}{\boxed{16}} = \frac{\boxed{9}}{24} = \frac{\boxed{12}}{32} = \frac{15}{\boxed{40}} = \frac{\boxed{18}}{48} = \frac{\boxed{21}}{56} = \frac{24}{\boxed{64}}$

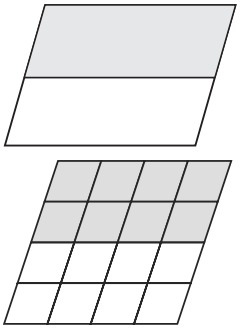
Missing Fractions



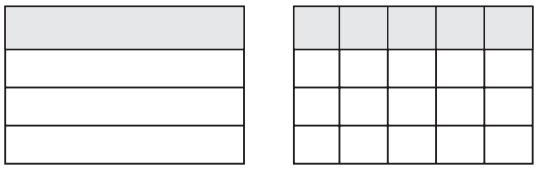
$\frac{1}{2} = \frac{2}{8}$



$\frac{1}{2} = \frac{4}{8}$

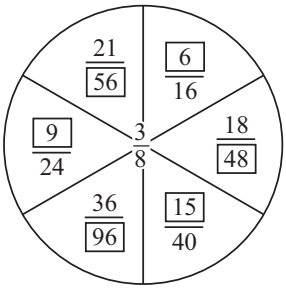


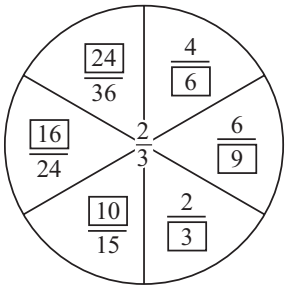
$\frac{1}{2} = \frac{2}{4}$



$\frac{1}{4} = \frac{5}{20}$

Equivalent Fraction Wheel





Decode Fraction Challenge

O $\frac{2}{4} = \frac{1}{\boxed{2}}$	S $\frac{4}{14} = \frac{2}{\boxed{7}}$	T $\frac{22}{24} = \frac{\boxed{11}}{12}$	N $\frac{2}{24} = \frac{1}{\boxed{12}}$
A $\frac{10}{15} = \frac{2}{\boxed{3}}$	B $\frac{2}{32} = \frac{1}{\boxed{16}}$	R $\frac{2}{8} = \frac{1}{\boxed{4}}$	
E $\frac{2}{16} = \frac{1}{\boxed{8}}$	I $\frac{2}{12} = \frac{1}{\boxed{6}}$	M $\frac{2}{26} = \frac{1}{\boxed{13}}$	
H $\frac{4}{10} = \frac{2}{\boxed{5}}$	D $\frac{10}{100} = \frac{1}{\boxed{10}}$	L $\frac{2}{18} = \frac{1}{\boxed{9}}$	
Y $\frac{2}{28} = \frac{1}{\boxed{14}}$	P $\frac{4}{16} = \frac{\boxed{1}}{4}$		

H	E	H	A	D	T	O	O	M	A	A
$\frac{2}{5}$	$\frac{1}{8}$	$\frac{2}{5}$	$\frac{2}{3}$	$\frac{1}{10}$	$\frac{11}{12}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{13}$	$\frac{2}{3}$	$\frac{2}{12}$

y	P	R	O	B	L	E	M	S
$\frac{1}{14}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{16}$	$\frac{1}{9}$	$\frac{1}{8}$	$\frac{1}{13}$	$\frac{2}{7}$

8. Measurement

Exercise-8.1

1. ∵ 1000 ml = 1 L

1300 ml = l L 300 ml

$$1000\overline{)1300\text{ ml}}\ (1\text{L}$$
$$1000$$
$$\underline{300\text{ ml}}$$

2. ∵ 100 cm = 1 m or 1 m = 100 cm

∵ 7 m = 7 × 100 cm = 700 cm

∵ 7 m 5 cm = (700 + 5) cm = 705 cm

3. 1 g = 1000 mg

5 g 50 mg = (5 × 1000 + 50) mg

= (5000 + 50) g

⇒ 5 g 50 mg = 50 50 g

4. ∵ 1 kg = 1000 g

∴ 15 kg 350 g = (15 × 1000 + 350) g

= (15000 + 350) g

= 15350 g

5. ∵ 1000 mg = 1 kg

∴ 9500 mg = 9 g 500 mg

$$1000\overline{)9500\text{ mg}}\ (9\text{g}$$
$$1000\text{mg}$$
$$\underline{500\text{ mg}}$$

6. 6250 g = 6 kg 250 g

$$1000\overline{)6250\text{ mg}}\ (6\text{kg}$$
$$6000\text{mg}$$
$$\underline{250\text{ g}}$$

7. 505 mm = 5 cm 05 mn

$$10\overline{)505\text{ mm}}\ (50\text{cm}$$
$$50$$
$$\underline{05\text{ mm}}$$

8. 326 m = (326 × 100) cm

= 32600 cm

∵ 1 km = 1000 cm

9. 5 km 30 m = (5 × 1000 + 30) m

= (5000 + 30) m

= 50 30 m

∵ 100 cm = 1m

10. 650 cm = 6 m. 50 cm

$$100\overline{)650\text{ mm}}\ (6\text{ m}$$
$$600$$
$$\underline{50\text{ cm}}$$

11. ∵ 1 kl = 1000 l

∴ 7 kl 30 L = (7 × 1000 + 30) L

= (7000 + 30) L

= 7030 L

12. 5 L 400 ml = (5 × 1000 + 400) ml

= (5000 + 400) ml

= 5400 ml

Exercise-8.2

2. (a)

7 m	25 cm
+ 15 m	50 cm
22 m	75 cm

(b)

4 kg	250 g
+ 3 kg	450 g
7 kg	700 g

(c)

84 cm	68 mm
+ 35 cm	49 cm
120 cm	17 cm

(d)

400 L	000 ml	
50 L	000 ml	
+ 0 L	500 ml	
450 L	500	ml

(e)

000 L	1400 ml	
000 L	5680 ml	
+ 280 L	000 ml	
287 L	080	ml

(f)

5 km	700 m
+ 12 km	450 m
18 km	150 m

(g) 3 kl 000 l 000 ml
+ 000 kl 400 l 000 ml
+ 000 kl 000 l 003 ml
3 kl 400 l 003 ml

= (3 × 1000 + 400) l + 3 ml
= (3000 + 400) l = 3 ml
= 3400 l 3 ml

(h) 75 g 430 mg
+ 750 g
825 g 430 mg

(i) 97 kg 45 g
77 kg 450 g
+ 33 kg 250 g
207 kg 745 g

(j) 75 km 400 m
37 km 300 m
+ 52 km 750 m
165 km 450 m

2. (a) 75 km 500 m
– 40 km 250 m
35 km 250 m

(b) 985 kg 475 g
– 275 kg 325 g
710 kg 150 g

(c) 15 L 500 ml
– 6 L 300 ml
9 L 200 ml

(d) 55 m 75 cm
– 23 m 40 cm
32 m 35 cm

(e) 15 km 450 m
– 13 km 200 m
2 km 250 m

(f) 40 kg 350 g
– 25 kg 200 g
15 kg 150 g

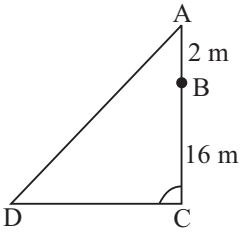
(g) 36 L 400 ml
– 12 L 550 ml
23 L 850 ml

(h) 750 m 840 mm
– 370 m 480 mm
380 m 360 mm

(i) 35 kg 850 g
– 18 kg 500 g
17 kg 350 g

(j) 5 km 400 m
– 3 km 350 m
2 km 050 m

3. Length of building of city hall 16 m
Length of flag pole on the top of the building = 2 m
What is distance between the top of the flag pole and ground (Ac) = 18 m



4. Weight of fruits (mangoes and apples) bought by father = 10 kg : 750 g
Weight of mangoes = – 6 kg 860 g
Weight of apples = 3 kg 890 g

5. Weight of mustard oil bought by Sara
= 500 ml
Weight of coconut oil bought by Sara
= 250 ml
Weight of refined oil bought by Sara
= + 2 l 000 ml
Weight of three oils together = 2 l 750 ml

6. The length of dirt road is = 169 m
The length of dirt road finished by workers
= 105 m
The length of the section of dirt road that is not paved = 64 m

7. Weight of cake bought of Nancy
= 10 kg 875g
Weight of cake distributed = – 7 kg 395 g among the children
Weight of cake is left = 3 kg 480 g

8. Length of riboon has Reena = 63 m 00 cm
Length of ribbon cut by Reena
= – 56 m 21 cm
Length of ribbon will be lift = 6 m 79 cm

9. The average height of baby giraffe
= 180 cm
The average height of a grown giraffe can be 3 m taller than baby giraffe
= + 3 m 000 cm
Average height (measure in m) of a grown giraffe = 4 m 80 cm

10. Weight of sweets and snacks for the occasion purchased by mother
= 19 kg 357 g
Weight of sweets were consumed
= – 16 kg 458 g
Weight of sweets ans shacks were lift
= 2 kg 899 g

Exercise-8.3

1. (a) 12 km 225 m × 6
73 km 350 m

(b) 75 m 15 cm × 5
375 m 75 cm

(c) 350 m 45 cm × 7
2453 m 15 cm

(d) 25 km 300 m × 6
151 km 800 m

(e) 37 m 350 mm × 8
298 m 800 mm

(f) 31 km 210 m × 4
124 km 840 m

(g) 12 g 350 mg × 7
86 g 450 mg

(h) 9 g 500 mg × 12
114 g 000 mg

(i) 6 kg 300 g × 3
18 kg 900 g

2. (a) 84 m 40 cm ÷ 4 = 21 m 10 cm

$$4\overline{)84\text{ m}40\text{ cm}}\ (21\text{ m }10\text{ cm}$$
$$-8\text{ m}$$
$$4\text{m}$$
$$-4\text{m}$$
$$4\text{ cm}$$
$$-4\text{ cm}$$
$$0$$

(b) 360 km 540 m ÷ 9 = 40 km 60 m

$$9\overline{)360\text{ km }540\text{ m}}\ (40\text{ km }060\text{ m}$$
$$-36\text{ km}$$
$$0$$
$$54\text{ m}$$
$$-54\text{ m}$$
$$0$$

(c) 750 m 45 cm ÷ 5 = 150 m 09 cm

$$5\overline{)750\text{ m }450\text{ cm}}\ (150\text{ m }09\text{ cm}$$
$$-5\text{ m}$$
$$25\text{ m}$$
$$-25\text{ m}$$
$$0$$
$$45\text{ cm}$$
$$-45\text{ cm}$$
$$0$$

(d) 49 km 630 m ÷ 7 = 7 km 90 m

$$7\overline{)49\text{ km }630\text{ m}}\ (7\text{ km }090\text{ m}$$
$$-49\text{km}$$
$$63\text{ m}$$
$$-63\text{ m}$$
$$0$$

(e) 770 km 550 m ÷ 11 = 70 km 50 m

$$11\overline{)770\text{ km }550\text{ m}}\ (70\text{ km }050\text{ m}$$
$$-77\text{ km}$$
$$0\text{ km}$$
$$-0\text{ km}$$
$$55\text{ m}$$
$$-55\text{ m}$$
$$0$$

(f) 49 m 770 mm ÷ 7 = 7 m 100 mm

```
      7 m 110 mm
   7 ) 49 m 770 mm
     - 49 m
       7 mm
     - 7 mm
       7 mm
     - 7 mm
         0
```

(g) 172 m 48 cm ÷ 4 = 43 m 12 cm

```
      43 m 12 mm
   4 )172 m 48 cm
     - 16 m
       12 m
     - 12 m
        4 cm
     - 4 cm
        8 cm
     - 8 cm
         0
```

(h) 75 kg 190 g ÷ 5 = 15 kg 038 g

```
      15 kg 038 g
   5 ) 75 kg 190 g
     - 5 kg
       25 kg
     -25 kg
        19 g
     -15 g
        40 g
     - 40 g
         0
```

(i) 66 kg 600 g ÷ 15 = 4 kg 440 g

```
       4 kg 440 g
  15 ) 66 kg 600 g
     - 60 kg
       66 g
     -60 g
        60 g
     - 60 g
         0
```

Exercise-8.4

1. The capacity of one sack of rice = 37 kg 600g

The capacity of 36 sack of rice

= 37 kg 600 g × 36

225 kg 600 g

112 8 kg 00 ×

1353 kg 600 g

2. Mita need length of one shirt cloth = 2 m 70 cm

She need length of 9 shirt cloth

= 2 m 70 cm × 9

24 m 30 cm

3. Quantity of milk is given per day to each student = 200 ml

Quantity of milk is given per day to 425 students = 200 ml × 425

1000 ml

400×

+ 800 ×

85000 ml

ie 85 L

4. Quantity of 4 bangles gold had Seema = 72 g 200 mg

Quantity of 1 bangle had Seema

= 72 g 200 mg ÷ 4

=18 g 50 mg

```
      18 g 050 mg
   4 )72 g 200 mg
     - 4 g
       32 g
     -32 g
       0200 mg
     - 200 mg
         0
```

5. The total length of 12 bed sheets = 25 m 44 cm

The length of 1 bed sheet

= 25 m 44 cm ÷ 12

= 2 m 12 cm

```
      1 m 12 cm
  12 )25 m 44 cm
     - 24 m
       144 cm
     -12
        24 cm
     -24cm
```

6. In 7 days quantity of milk purchased Mah mood = 20 l 500 ml

In 1 day quantity of milk required

= 20 L 500 ml ÷ 7

= 2 l 928 ml

$$
\begin{array}{r}
2\text{ L }928\text{ ml} \\
7\overline{)\ 20\text{ L }500\text{ ml}} \\
-14\text{ L} \\
\hline
6500\text{ ml} \\
-63\text{ ml} \\
\hline
20\text{ ml} \\
-14\text{ ml} \\
\hline
60\text{ ml} \\
-56\text{ ml} \\
\hline
4\text{ ml}
\end{array}
$$

7. The length of 4 pieces of cloth = 8 m 60 cm
The length of 1 piece of Cloth = 8 m 60 cm ÷ 4
= 2 m 15 cm

$$
\begin{array}{r}
2\text{ m }15\text{ cm} \\
4\overline{)\ 8\text{ m }60\text{ cm}} \\
-8\text{ m} \\
\hline
6\text{ cm} \\
-4\text{ cm} \\
\hline
20\text{ cm} \\
-20\text{ cm} \\
\hline
0
\end{array}
$$

8. The length of 1 rope = 4 m 25 cm
The length of 49 ropes
= 4 m 25 cm
× 49
38 m 25 cm
170 m 0 ×
208 m 25 cm

9. The length of ground covering by John along the boundary in 7 days
= 46 m 98 cm
The length of the ground covering in 1 day
= 46 cm 98 cm ÷ 7
= 6 m 71 cm

$$
\begin{array}{r}
6\text{ m }71\text{ cm} \\
7\overline{)\ 46\text{ m }98\text{ cm}} \\
-42\text{ m} \\
\hline
498\text{ cm} \\
-49 \\
\hline
8\text{ cm} \\
-7\text{ cm}
\end{array}
$$

10. Weight of 1 bath soap = 90 g
Weight of 96 bath shops = 90 × 96
540
810 ×
8640 g
ie 8 kg 640 g

BRUSH UP YOUR CONCEPTS

Right or wrong

Do yourself

9. Time

Exercise-9.1

1. (a)

	hr.s	Mins
	19	19
+	1	12
	20	31

(b)

	hr.s	Mins
	12	01
+	1	16
	13	17

(c)

	hr.s	Mins
	20	17
+	1	23
	21	40

(d)

	hr.s	Mins
	17	10
+	6	31
	23	41

(e)

	hr.s	Mins
	18	49
+	1	01
	19	50

(f)

	hr.s	Mins
	10	39
+	11	10
	21	49

(g)

	hr.s	Mins	
	13	19	
+	1	42	
	14	61	
=	+ 1	− 60	←is more than 60 mins
	15	01	

(h)

	hr.s	Mins
	1	39
+	9	05
	10	44

(i)

	hr.s	Mins
	16	12
+	2	11
	18	23

(j)

	hr.s	Mins
	12	01
+	3	29
	15	30

(k)

	hr.s	Mins
	7	12
+	4	09
	11	21

(l)

	hr.s	Mins
	16	40
+	5	15
	21	55

(m)

	hr.s	Mins	
	1	43	
+	5	51	
	6	94	
	+ 1	– 60	←is more than
	7	34	60 mins

(n)

	hr.s	Mins	
	1	21	
+	6	39	
	7	60	
	+ 1	– 60	←is more than
	8	00	60 mins

(o)

	hr.s	Mins	
	14	11	
+	3	58	
	17	69	
	+ 1	– 60	←is more than
=	18	09	60 mins

(p)

	hr.s	Mins	
	13	19	
+	1	42	
	14	61	
	+ 1	– 60	←is more than
=	15	01	60 mins

(q)

	hr.s	Mins
	10	39
+	11	10
	21	49

(r)

	hr.s	Mins
	15	12
+	5	42
	20	54

2. (a)

8 hrs 40 mins
\+ 17 hrs 32 mins
\+ 25 hrs 72 mins ←is more than
1 hr –60 mins 60 mins
= 26 hrs 12 mins

(b)

23 hrs 52 mins
\+ 5 hrs 06 mins
28 hrs 58 mins

(c)

23 hrs 29 mins
\+ 9 hrs 54 mins
32 hrs 83 mins ←is more than
\+ 1 hr –60 mins 60 mins
33 hrs 23 mins

Answer Key 3 to 5

(d)
22 hrs 51 mins
\+ 14 hrs 33 mins
36 hrs 84 mins ←is more than
1 hr –60 mins 60 mins
= 37 hrs 24 mins

(e)
11 hrs 11 mins
\+ 21 hrs 52 mins
32 hrs 63 mins ←is more than
\+ 1 hr –60 mins 60 mins
= 33 hrs 03 mins

(f)
19 hrs 30 mins
\+ 6 hrs 33 mins
25 hrs 63 mins ←is more than
\+ 1 hr –60 mins 60 mins
= 26 hrs 03 mins

(g)
19 hrs 52 mins
\+ 21 hrs 25 mins
40 hrs 77 mins ←is more than
\+ 1 hr –60 mins 60 mins
= 41 hrs 17 mins

(h)
10 hrs 35 mins
\+ 19 hrs 05 mins
29 hrs 40 mins

3. (a)

	hr.s	Mins
	18	43
–	03	03
	15	40

(b)

	hr.s	Mins
	43	44
–	20	46
	22	58

(c)

	hr.s	Mins
	19	47
–	16	41
	3	6

(d)

	hr.s	Mins
	23	14
–	03	54
	19	20

←60 + 14 = 74

(e)

	hr.s	Mins
	21	30
–	07	13
	14	17

(f)

	hr.s	Mins
	17	46
–	08	43
	9	03

(g)

	hr.s	Mins
	28	54
–	20	00
	8	54

(h)

	hr.s	Mins
	33	28
–	17	50
	15	38

←60 + 28 = 88 mins

(i)

	hr.s	Mins
	28	41
–	14	29
	14	12

(j)

	hr.s	Mins
	39	07
–	24	29
	14	38

←60 + 7 = 67

(k)

	hr.s	Mins
	45	04
–	25	59
	19	05

←60 + 4 = 64

(l)

	hr.s	Mins
	41	08
–	24	02
	17	06

4. (a)
18 hrs 90 mins
19 hrs 30 mins
– 6 hrs 59 mins
12 hrs 31 mins

(b)
13 hrs 16 mins
– 3 hrs 11 mins
10 hrs 05 mins

(c)
36 hrs 46 mins
– 17 hrs 16 mins
19 hrs 30 mins

(d)
15 hrs 64 mins
16 hrs 04 mins
– 13 hrs 18 mins
2 hrs 46 mins

(e)
41 hrs 39 mins
– 18 hrs 04 mins
23 hrs 35 mins

(f)
42 hrs 104 mins
43 hrs 44 mins
– 19 hrs 53 mins
23 hrs 51 mins

(g)
25 hrs 29 mins
– 23 hrs 29 mins
2 hrs 00 mins

(h)
40 hrs 46 mins
– 17 hrs 30 mins
23 hrs 16 mins

Exercise-9.2

1. Time for distance travelled by car = 1 hr 35 mins
Time for distance travelled by train = 2 hrs 40 mins
Time for distance travelled by auto rickshaw = + 45 mins
Total time taken by Rosie to reach her home town 3 hrs 120 mins
3 + 2 = 5 Hours 0 mins

2. Jessica puts cookies in oven at = 7 : 00 am
They need to cook for = 1 hr 18 mines
What time should Jessica take the = 7 : 00 + 1 : 18
cookies out of the oven = 8 : 18 am

3. Sarah rent a movie that is = 1 hr 34 mins
she starts watching the movie at = 6 : 00 P. m
What time will the movie end = 1 : 34 + 6: 00
= 7 : 34 P. m

4. Catherine's watch says it is = 4 : 00 p. m.
She will go for dinner in = 3 hrs 20 mins
What time will the movie end = 4 : 00 + 3 : 20
= 7 : 20 P. m

5. Mike goes by bike ride every day for = 1 hr 15 mins
on Monday, he begins his bike ride at = 3 : 45 p. m.
What time will he finish riding = 1 : 15 + 3 : 45
his bike = 5 : 00 p. m.

6. Jennie begins her morning jog at = 5:10 am
The time she jogs for = : 45 minutes
What time Jennie finishes her = 5 : 10 + 45
Jogging = 5 : 55 P. m.

BRUSH UP YOUR CONECPTS

How many

1. Seconds are there in 1 minute [60]
2. Minutes are there in 1 hours [60]
3. Hours in 1 day [24]
4. Days in 1 week [7]
5. Days in 1 year [365]
6. Weeks in 1 year [52]

Fill UP

1. 2 minutes = [120] seconds
2. 5 hours = [300] seconds
3. 49 days = [7] Weeks
4. 3 days = [72] hours
5. 48 hours = [2] days
6. 5 weeks = [35] days

Minutes and Seconds

1. How mang minutes are there in 21.5 hours = 1290 minutes

And 35 hours = 2100 minutes

2. How many seconds are there in 13.5 minutes = 810 seconds

3. And 23 minutes = 1380 minutes

Time Comprehension Math

Movie	Morning session	Afternoon Session	Evening Session
Stuart Litter (84 mins)	10 : 00 a.m. 84 mins = 1 hr 24 mins 10 : 00 am + 84 mins = 11 hrs 24 mins	01 : 35 P. m. = 1: 35 + 0 : 84 = 2 : 59 P. m.	08 : 15 P. m. 08 : 15 + : 84 = 08 : 99 = 9 : 39 P. m.
Tom and Jerry (101 mins)	10 : 15 a. m. 10 :15 + 0: 101 = 11 : 56 a.m.	02 : 00 P. m. = 2 : 00 + 0 : 101 = 2 + 1 : 41 = 3 : 41 P.m.	09 : 20 P. m. = 9 : 20 : 0 : 101 = 11 : 01 P. m.
Halo (92 mins)	0 : 9 : 45 a.m. = 9 : 45 + 0 : 92 = 11 : 17 a. m.	12 : 30 p. m. = 12 : 30 + 0 : 92 = 14 : 02 P. m.	07 : 20 P. m. = 7 : 20 + 0 : 92 = 8 : 52 Pm
The blue umbrella (92 mins)	10 : 30 a. m. = 10 : 30 + 0 : 92 = 12 : 02 P.m	01 : 45 P. m. = 1 : 45 + 0 : 92 = 3 : 17 P. m	06 : 40 P. m. = 06 : 40 + 0 : 92 = 08 : 12 P. m.

1. At the time in the morning session of Stuart Little finish = 10 : 00 + : 84 = 11 : 24 a.m.

2. Halo is shorter than Tom and Jerry = 101 – 92 = 0 : 9 mins

3. The blue umbrella movie will finish at 3 : 17 P. m.

4. At 8 : 12 P. m the evening session of the blue umbrella-end.

Race Challenge

Name	Time in seconds	Time in minutes and seconds	Rank
Monoj	75 Seconds	1 minute and 15 seconds`	2nd
Mukesh	140 seconds	2 minute 20 seconds	6th
Puneet	100 seconds	1 minutes 40 seconds	4th
Dev	90 seconds	1 minutes 30 seconds	IIIrd
Anu	120 seconds	2 minutes	5th
Rohit	70 seconds	1 minute 10 seconds	Ist

10. Money

Exercise-10.1

Solutions

1. ₹ 500.00

– ₹ 348.25

₹ 151.75

2. The amount I had = ₹ 625.00

The amount given by my father to me as pocket money = ₹ 450.75

The amount given my mother to me = + ₹ 350.00

The total amount I have now = ₹ 1425. 75

3. The amount paid to shop keeper by Varun ₹ 500.00

The amoun spent by Varun for sweets = – ₹ 475.50

The amount get back by Varun = ₹ 24.50

4. The amount spent to buy a pen by Mahesh = ₹ 68.50

The amount spent to buy a book by Mahesh = ₹ 150.75

The amount spent to buy a bog by Mahesh = + ₹ 925.000

The total cost of all three things = ₹ 1144.25

5. The amount spent for a dress by Rashia = ₹ 245.75

The amount spent for a bag by her = + ₹ 115.68

Total amount for spent both things = ₹ 361.43

The amount had Rashia = ₹ 845.00

The amount Spent-in both = ₹ 361.43

The amount left with her = ₹ 483.57

6. The amount spent to buy for bean by Gracy = ₹ 136.50

The amount spent to = ₹ 112.25

buy for tomatoes by her = + 114.75

The amount paid to shop keeper by her = ₹ 363.50

7. Amount given to her sister to buy a dress = ₹ 2745.75

Amount spent to buy a saree for her self = + ₹ 15235.50

Total amount spent in both cloth = ₹ 17981.25

The amount had Purrnima = ₹ 23425.00

Total amount spent in both colth = – ₹ 17981.25

The amount left with her = 5443.75

8. The amount spent for purchasing a tractor by Surya = ₹ 53,079.57

The amount spent for purchasing for thresher by him = + ₹ 32609.84

The amount spent all together by her = ₹ 85689.41

9. The amount is in John account = ₹ 62, 500.00

The amount withdraw by him = – ₹ 51800.75

The amount left in his account = 10699.25

10. The amount is collected for other kinds of aid = ₹ 26,575

The amount is collected for a certain project – ₹ 25000

The amount did they exceed their target = ₹ 1575

Exercise-10.2

Solutions

1. The amount get by 10 students for scholarship = ₹ 4000

The amount get by 1 student for scholarship

$= ₹ \frac{4000}{10} = ₹ 400$

2. The cost of an egg = ₹ 4

The cost of 12 eggs = 4 × 12

= ₹ 48

3. 1 m, colth cost = ₹ 675

58m, cloth cost = ₹ $\underline{675 \times 58}$

= ₹ $\underline{39,150}$

4. 9 shists cost = ₹ 1422

1 shirts cost $= ₹ \frac{1422}{9} = ₹ 158$

5. The cost of an umbrella = ₹ 225

The cost of 115 umbrella = ₹ 225 × 115

= ₹ 25875

6. Total friends = 3

Total amount distributed = ₹ 4,425

Each friend get amount

$= ₹ \frac{4425}{3} = ₹ 1475$

7. The cost of 12 apples = ₹ 96

The cost of 1 apple = ₹ 96 ÷ 12 = ₹ 8

8. The amount earn by a labourer in 1 day = ₹ 1525

The amount earn by a labourer in 7 day = ₹ 1525 × 7

= ₹ 10675.00

9. In 6 days a carpenter earn amount = ₹ 9,666

In 1 day a carpenter earn amount = ₹ 9,666 ÷ 6

= ₹1,611

10. The cost of table = ₹ 732
The cost of 216 tables = ₹ 732 × 216
= ₹ 158,112

Exercise-10.3

1. Venba kart 24/01/2018
Name of the customer – Mohammad

S. No.	Descriptin	Quantity	Cost per unit	Tatal cast (in ₹)
1	Sugar	3 kg	₹ 37	₹ 111
2	Rice	5 kg	₹ 25	₹ 125
3	Wheat	4 kg	₹ 18	₹ 72
4	Toor dal	2 kg	₹ 72	₹ 144
5	Graund-jut oil	2 kg	₹ 92	₹ 184
			Total	₹ 636

2. Fresh Vegetiables & Fruits shop 16/07/23
Name of the customer – Gayatri

S. No.	Descriptin	Quantity	Cost per unit	Tatal cost (in ₹)
1	Apples	2 kg	₹ 35	₹ 70
2	Oranges	1 kg	₹ 28	₹ 28
3	Mangoes	3 kg	₹ 40	₹ 120
4	Bananas	1 kg	₹ 17	₹ 17
			Tatal	₹ 235

3. Jai Hardware 03/03/21
Name of the customer – Rajbir Singh

S. No.	Descriptin	Quantity	Cost per unit	Tatal cast (in ₹)
1	Hammers	2	₹ 85	₹ 170
2	Boxes of nails	6	₹ 25	₹ 150
3	Boxes of screws	8	₹ 30	₹ 240
4	Spanners	2	₹ 175	₹ 350
			Total	₹ 910

4. Complete the boxes 04/01/24
Name of the customer – Gulshan

S. No.	Descriptin	Quantity	Cost per unit	Tatal cast (in ₹)
1	Sugar	3 kg	₹ 38	₹ 114
2	Gram	2.5 kg	₹ 42	₹ 105
3	Tea	1kg	₹ 205	₹ 205
4	Wheat	5 kg	₹ 16	₹ 80
			Total	₹ 504

BRUSH UP YOUR CONCEPTS

School Bill Comprehension Math
Cash Bill
Furniture world New Delhi
Bill no–728 **Date–23/10/2019**

S. No.	Descriptin	Quantity	Cost per unit	Tatal cast (in ₹)
1	Sitting bench	50	1200	60,000
2	Writing desk	50	1500	75,000
3	Black board	2	3000	6,000
4	Chair	10	950	9,500
5	Table	10	1750	17,500
			Total	1,68,000

1. The name of the store is 'Furniture word'.
2. The serial no of bill is 728
3. The cost of a black board is ₹ 3000
4. The set of benches and decks are 50+50 ie 100
5. The total bill amount is correct.

Observe and Find

Cost of 4 kg rice = 55 × 4 = ₹ 220
Cost of 5 kg Wheat = 49 × 5 = ₹ 245
Cost of 2 kg Jowar = 46 × 2 = ₹ 92
Cost of 3 kg Soya bean = 98 × 3 = ₹ 294
Cost of 6 kg Sugar = 65 × 6 = ₹ 390
Cost of 3 kg peas = 83 × 3 = ₹ 249
Total Cost of vegetables al together ₹1490

Check and correct challenge.

Bill is correct

11. Symmetry and Patterns

Exercise-11.1

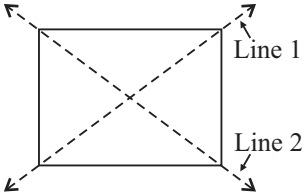
1. The mirror images of given figures are:

(a)  (b) 

(c)  (d) 

(e) 

2.



No, line 1 and line 2 in the given figure are not the lines of symmetry.

3. The rectangle has rotational symmetry at 180° and 360°

4. There are 2 lines of symmetry in a rectangle

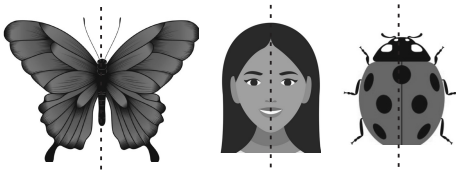
5. False, the diagonal of a rectangle is not a line of symmetry.

6. Yes, rectangle has a rotational symmetry.

7. Reflective Symmetry:

If there exists at least one line that divides the objects into two halves such that one half is the mirror image of the other half, then, it is called reflective symmetry. In reflective, one half is reflective of the other half.

It is also known as mirror symmetry for example, butter fly wings, human, beetle. are identical on the left and right rides.

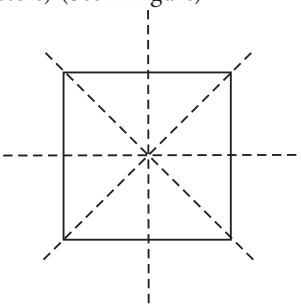


Rotational Symmetry

The object is said to have a rotational symmetry if after rotation the object remains the same.

Geometrical shapes such as squares, rhombus, circles etc. exhibit rotational symmetry when an object is rotated the size and the shape of the object donot change.

8. In a square, there are four lines of symmetry each of which divides it into two identical parts. The symmetry lines of a square both its diagonals and the lines joining the midpoints of its opposite sides (bisectors) (See in figure)



9. The imaginary line or axis along which you fold a figure to obtain the symmetrical halves is called the line of symmetry.

It basically divides an object into two mirror images halves. The line of symmetry can be vertical, horizontal or diagonal.

10. The axis of symmetry is an imaginary straight line that divides a shape into two identical parts, there by creating one part as the mirror image of the other part.

When folded along the amis of the symmetry, the two parts get superimposed.

We can see axis of symmetry in nature such as flowers, buildings, leaves and so on.

11. (a) Square has 4 order of symmetry

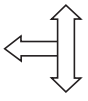
(b) Rectangle 2 order of symmetry

(c) Rhombus 2 order of symmetry

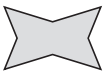
12. The litters F, G, P and R have no line fo symmetry.

Exercise-11.2

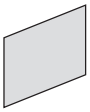
1. (a)  (b) 

(c)  (d) 

2. Do, yourself

3. (a)  (b) 

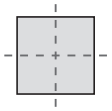
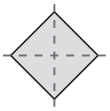
(c)  (d) 

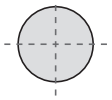
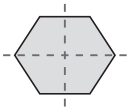
(e) 

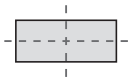
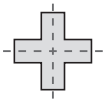
4. Do, yourself

BRUSH UP YOUR CONCEPTS

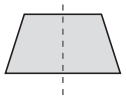
Two Lines of Symmetry!

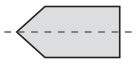
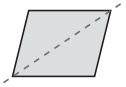
1.  2. 

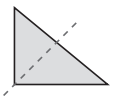
3.  4. 

5.  6. 

One Line of Symmetry!

1.  2. 

3.  4. 

5.  6. 

Yes or No

1. Yes **2.** No

3. No **4.** Yes

5. No **6.** Yes

What Next

1.  **2.** 

3.  **4.** 

5. 

Word Formation in Mirror

MOM	COM	HIDE	WICK
WOW	COW	HIDE	MICK

12. Mapping and Location

Exercise-12

1. (a) A = (5, 8) (b) B = (1, 9) (c) = (8, 2) (d) D = (4, 3) (e) E = (0, 5) (f) F = (4, 8) (g) G = (7, 2) (h) H = (9, 8) (i) I = (7, 7) (j) J = (8, 4)

2. (a) (A, 6) (b) (C, 5) (c) (B, 4) (d) (F, 5) (e) (E, 5) (f) (D, 3) (g) (A, 2) (h) (C, 2) (i) (F, 2) (J) (E, 1)

BRUSH UP YOUR CONCEPTS

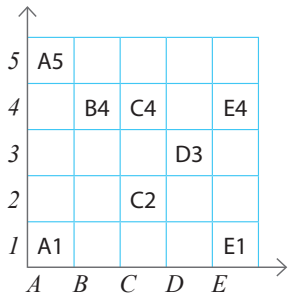
Pick the points

1. (F, 1)	2. (J, 8)	3. (H, 9)
4. (B, 2)	5. (D, 8)	6. (B, 4)
7. (G, 6)	8. (K, 2)	9. (F, 10)
10. (A, 7)	11. (C, 11)	12. (L, 4)
13. (D, 5)	14. (H, 3)	15. (J, 12)

Mark the points

1. is at (6, 2)	2. is at (7, 3)	3. is at (2, 7)
4. is at (2, 2)	5. is at (3, 4)	6. is at (10, 7)
7. is at (9, 3)	8. is at (3, 1)	9. is at (4, 2)
10. is at (8, 1)	11. is at (6, 7)	12. is at (6, 5)
13. is at (2, 5)	14. is at (10, 1)	15. is at (1, 4)

Grid.



1. A1 ▲	Green	5. C4 ■	Blue
2. B4 ●	Blue	6. E1 ▲	Red
3. E4 ■	Red	7. A5 ▲	Yellow
4. D3 ●	Green	8. C2 ●	Yellow

Grid Decodes Charlleng.

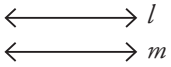
IF YOU HAVE FOUND THIS MESSAGE, YOU HAVE WORKED HARD

13. Geometry

Exercise-13.1

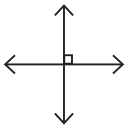
1. (a) Parallel Lines : When two straight lines move alongside each other and maintainer a constant distance between each other, they called parallel lines. The Symbol 11 used to represent the parallel lines.

In the given figure *l*, m and is are two parallel lines



(b) Perpendicular lines

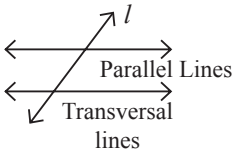
When two lines intersect each, other, at an angle of 90° they are known as perpendicular lines. In the given figure line s l and are two perpendicular lines. Perpendicular lines are denoted by the symbol of ⊥.



(c) Transversal lines :

When a line intersect two lines at different respective points, then it is know as a transversal line. In the given figure, line l is a transversal.

In the transversal, the two lines may be parallel or non parallel.



2. The corner point of an angle ie the common point is called the vertex of an angle. The two straight sides of the angle are called arms of the angle.

3. (a) An angle can have a value between 0° to 360°

(b) The two straeght sides of the angle are called. arms of the angle.

(c) The corner point of an angle is called the Vertex of an angle.

(d) An angle is a figure formed by two rays that meet at a common end point.

(e) An angle is denoted by the symbol L.

Exercise-13.2

1. (a) Right angle (b) Straight angle
(c) acute angle (d) acute angle
(e) obtuse angle (f) Right angle

2. (a) obtuse angle (b) acute angle
(c) obtuse angle (d) Straight angle
(e) acute angle (f) acute angle

3. Do, yourself

4. Do, yourself

5. (a) 35° (b) 100° (c) 90° (d) 25° (e) 70° (f) 130°

6. Do, yourself

BRUSH UP YOUR CONCEPTS

Time and angles

1. 180° 2. 90° 3. 60° 4. 150°

Find the angles

Do yourself

Name the angles

1. Obtuse angle 2. Right angle
3. Obtuse angle 4. acute angle
5. acute angle 6. acute angle
7. right angle 8. acute angle

Measure Angle challenge

1. ∠COB = 30° 2. ∠AOB = 180°
3. ∠GOB = 150° 4. ∠EOB = 90°
5. ∠GOD = 90° 6. ∠FOC = 90°

14. Perimeter and Areas

Exercise-14

1. (a) Perimeter of given figure = 2 (l + b)
= 2 (12 + 10)
[L = 12cm B = 10 cm]
= 2 × 22
= 44 cm

(b) We have
Side of hexagon = 2 cm
Perimeter of hexagon = 6 × side
= 6 × 2
= 12 cm

(c) We have

Side of the triangle are 7 cm, 10 cm and 15cm

Perimeter of triangle

= Sum of three sides

= 7+ 10 +1 5

= 32 cm

(d) We have

Side of pentagon are 8ft, 6ft, 4ft, 6ft and 6ft

Perimeter of pentagon

= sum of side of the pentagon

= 8 + 6 + 4 + 6 + 6

= 30 ft

(e) We have

Side of a quadrilateral are 4 km, 3 km, 4 km and 2 km.

Perimeter of a quadrilateral = Sum of sides of quadrilateral

= 4 + 3 + 4 + 2

= 13 km

(f) We have

Length of a rectangle is 11 cm and breadth of it is 9 cm.

Perimeter of a rectangle = 2 (l + b)

= 2 (11 + 9)

= 2 × 20

= 40 cm

2. Since each square (□) is 1 cm^2

(a) Since, the given figure is square shape side of square is 3 units

Perimeter of a square

= 4 × Side of square

= 4 × 3 = 12 cm

(b) Perimeter of given figure

= 3 + 2 + 1 + 1 + 2 + 1

= 10 cm

(c) Perimeter of a given figure

= 2 + 1 + 1 + 1 + 1 + 1 + 2 + 3

= 12 cm

(d) Perimeter of given figure

= 3 + 1 + 1 + 1 + 1 + 1 + 3 + 1 + 1 + 1 + 1 + 1

= 16 cm

(e) Perimeter of given figure

= 3 + 3 + 1 + 1 + 1 + 1 + 1 + 1

= 12 cm

(f) Perimeter of given figure is

= 3 + 2 + 2 + 1 + 1 + 1

= 10 cm

3. We have

Length of side of a square = 9 cm

Perimeter of a square = 4 × side

= 4 × 9

= 36 cm

4. We have

Length of rectangular park is 70 cm and its breadth is 40 cm.

Perimeter of a rectangular park

= 2 (l + b)

= 2(70+40)

= 2 ×110

= 220 cm

5. We have

Length of rectangular is 8 cm and its breadth is 5 cm

Wire will be needed to make a rectangle is perimeter of a rectangle.

Perimeter of a rectangular = 2 (l + b)

= 2(8 + 5)

= 2 × 13

= 26 cm

6. We have

Side of a square is 12 m

Perimeter of a square = 4 × side

= 4 × 12 = 48 cm

7. We have

Side of a square ts 15 cm

Area of a square = $side^2$

= 15^2 = 225 cm^2

8. We have

Length of rectangle = 18 cm

And breadth of rectangle = 6 cm

Area of rectangle = L × B

= 18 × 6

= 108 cm^2

9. (a) Side of a square is 10 m

Area of a square = side^2

= 10^2

= 100m^2

(b) Side of a square is 18 cm

Area of a square = 18 × 18

= 324 cm^2

(c) Side of a square is 13 m

Area of a square = 13^2

= 169 m^2

(d) Side of a square is 16 cm

Area of a square = 16 × 16

= 256 cm^2

10. (a) Length of a rectangle (l) = 6 cm

And breadth of a rectangle (b) = 3 cm

Area of a rectangle = l × b

= 6 × 3

= 18 cm2

(b) Length of a rectangle (l) = 7 cm

And breadth of a rectangle (b) = 4 m

Area of a rectangle = l × b

= 7 × 4

= 28 cm^2

(c) Length of a rectangle (l) = 8 cm

And breadth of a rectangle (b) = 5 cm

Area of a rectangle = 8 × 5

= 40 cm^2

(d) Length of a rectangle (l) = 9 m

And breadth of a rectangle (b) = 6 m

Area of a rectangle = 9 × 6

= 54 m^2

BRUSH UP YOUR CONCEPTS

Perimeter

Do, yourself

Area

Do, yourself

Area

We have

1. Length of given rectangle is 5 cm and its breadth is 2 cm.

Area of rectangle = 5 × 2

= 10 cm^2

2. Length of given rectangle is 9 cm and its breadth is 7 cm.

Area of rectangle = 9 × 7 = 63 cm^2

3. Side of a square = 3 cm

Area of a square = 3^2 = 9 cm^2

4. Area of given figure

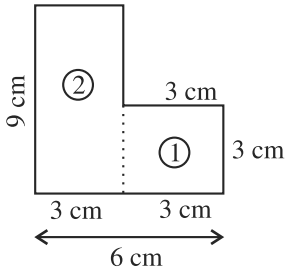
= Area of figure (1)

+ area of figure (2) = side^2 + l × b

= 3^2 + 9 × 3

= 9 + 27

= 36 cm^2

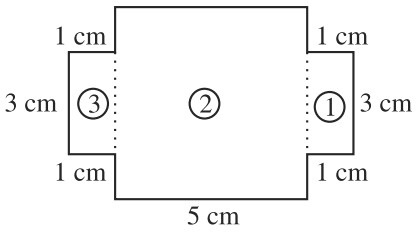


5. Area of given figure = Area of figure (1) + are of figure (2) + area of figure (3)

= 1 × 3 + 5 × 5 + 1 × 3

= 3 + 25 + 3

= 31 cm^2



6. Side of a square = 5 cm

Area of a square = 5^2 = 25 cm^2

15. Data Handling

Exercise-15

1. (a) Production of paddy during the years 2017 was 100 × 3 300 kg

(b) In Years 2017 and 2019 paddy production 2018 and 2020 paddy production was equal.

(c) Quantity of paddy production in 2020 Production = 2 × 100 = 200 kg

(d) Quantity of paddy production for year 2018 = 2 × 100 = 200 kg

Quantity of paddy production for year 2019 = 3 × 100 = 300 kg

Quantity of paddy production for year 2020 = 2 × 100 = 200 kg

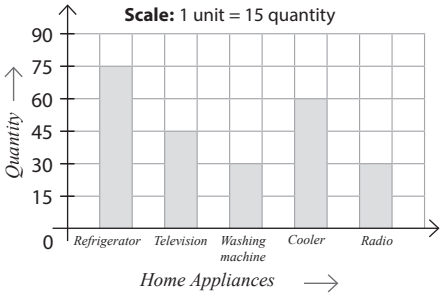
Total quantity of paddy production for the years = 200 + 300 + 200 = 700 kg

2. (a) 10 students attended the mathematics examination.

(b)

S. No.	Marks scored by students	Tally marks
1	41	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |
2	26	𝍸 𝍸 𝍸 𝍸 𝍸 |
3	58	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||
4	60	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
5	20	𝍸 𝍸 𝍸 𝍸
6	27	𝍸 𝍸 𝍸 𝍸 𝍸 ||
7	52	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||
8	18	𝍸 𝍸 𝍸 |||
9	46	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |
10	57	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||

3.



4. (a) The rain was there on all days of the week = 3 × 2 + 6 × 2 + 5 × 2 + 3 × 2 + 4 × 2 + 10 × 2 + 6 × 2

= 6 + 12 + 10 + 6 + 8 + 20 + 12

74 millimetres

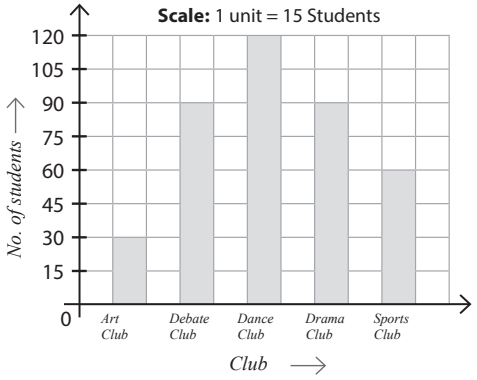
(b) Most rain fall in city on Friday = 2 × 10 20 ml

Least rein fall in city = 3 × 2 = 6 ml on Sunday

So, the rain fall on Friday has 20 ml – 6 ml ie 14 ml more than the rainfall on Sunday in a city

(c) On (Sunday and Wednesday), (Monday and Saturday the rain fall was same ie. 6 ml and 12 ml

5.



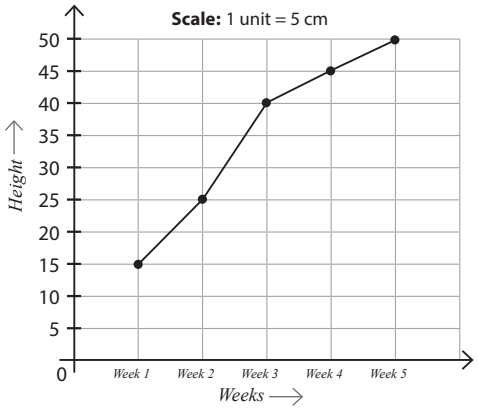
(a) Art Club, 30 students

(b) 30 and 90 students

(c) 30 students

(d) 390 students

6.



(a) 25 cm (b) 10 cm (c) 20 cm (d) 35 cm

(e) Growth of the plant

7. (a) Students look the school bus in 2018 are 150.

(b) In 2017 year 250 students taking the school bus was the greatest.

(c) In 2020, the number of students taking the school bus = 225

In 2019, the number of students taking the school bus = – 125

Increase the number of students taking the school bus = 100

(d) The greatest number of students (i.e. in years 2017) = 250

The least number of students (i.e. in year 2019) = –125

Difference between greatest and least students = 125

(e) The students took the school bus from 2017 to 2020

= 250 + 150 + 125 + 225

= 750

BRUSH UP YOUR CONCEPTS

Comprehension Bas Graph

1. Total number of pencils = 700

Number of pencils are = – 523

Used by Mrs Salini's class number of pencils are left = 177

2. Total number of scissors = 300

Number of scissors are used by Mrs Kant's class = – 156

Number of scissors are left = 144

3. Number of folders took by Mr John's class = 248

Number of folders took by Jordan's class = +176

Number of folders took by both = 424

Now, total number of folders = 600

Number of folders took by both = –424

Number of folders are left = 176

4. Number of glue stick used by Mrs Azan's class = 96

Number of glue sticks used by mrs Ahuja's class = +189

Number of glue sticks used by both = 285

Now, Total Number of glue stichs = 400

Number of glue sticks used by both= –285

Number of glue sticks are left = 115

5. Number of Markers needed by Mrs Barry's class = 275

Number of Markers needed by Mr Mathur's class = +398

Number of markers needed by both = 673

Total Number of markers = 900

Number of markers needed by both =–673

Number of markers are left = 227

Line Graph

1. In 2017, 750 Students and 2021, 900 students So, 150 students more in 2021

2. Huge rise in 2019 and it is 1500

3. Total number of students during 2019–2021 are 1500 + 1050 + 900 = 3450

4. Students in 2020 = 1050

Students in 2018 = –600

So, 450 Students more 2020 than 2018 = 450

5. Greatest number of Students = 1500

Least number of Students = –600

Difference between them = 900

Bar Graph and Table challenge

1. Jai, Tonny collected more than ₹ 200

2. Nancy and Rita collected the same amount of money

3. Tonny collected twice as much money as Kum Kum.

4. Total money 270 + 140 + 260 + 200 + 130 + 140 = 1140

5. ₹ 860 more money did the children have to collect in order to reach ₹ 2000

Test Yourself – 1

Section A

1. (b) 3,43,47,000

2. (b) ∵ 16 = 1, 2, 4, 8, 16
30 = 1, 2, 3, 5, 6, 10, 15, 30
HCF = 1 × 2 = 2

3. (d) $\frac{3}{7}$ of 91 = 3 × 13 = 39

4. (d)

5. (d) ∵ 1000000 + 1000 = 100 1000

6. (d) ∵ 1747.26 is divided among 34 people

$\therefore$ share of each person = $\frac{1747.26}{34} = 51.39$

$$\begin{array}{r} 51.39 \\ 34\overline{)1,747.26} \\ -170 \\ \hline 47 \\ -34 \\ \hline 132 \\ -102 \\ \hline 306 \\ -306 \\ \hline 0 \end{array}$$

7. (b) The area of an object is space occupied by the object

8. (a) The collected data which is not in any particular order is known as raw data

Section B

9. The place values of 5 = 5,00,000
and 5 = 5

10. 16432 = 16400

11. 100 thousands make1 lakh

12. ∵ 60 seconds = 1 minutes

5,469 seconds = $\frac{5469}{60}$

$$\begin{array}{r} 91 \text{ min} \\ 60\overline{)5469 \text{ sec}} \\ 540 \\ \hline 69 \\ 60 \\ \hline 9 \text{ sec} \end{array}$$

$\therefore$ 5469 seconds = 91 minutes 9 sec.

13. When two rays meet at a common end point, they form a figure called angle.

14. Do yourself.

15. The rectangular bars can be draws horizontal or vertically.

Section C

16.
$$\begin{array}{r} 3783 \\ 12\overline{)\ 45,399} \\ -36 \\ \hline 93 \\ -84 \\ \hline 99 \\ -96 \\ \hline 39 \\ -36 \\ \hline 3 \end{array}$$

17. Since 8.2 is not divisible by 4. So, it is not divisible by 4 and 6

18. The pattern is 2, 4, 8, 16, 32, 64, 128, 256

19.
$$\begin{array}{r} 16 \text{ hrs } 36 \text{ mins } 25 \text{ sec} \\ -12 \text{ hrs } 48 \text{ mins } 29 \text{ sec} \\ \hline 3 \text{ hrs } 47 \text{ mins } 56 \text{ secs} \end{array}$$

20. The side of a square garden is 41 m.
The perimeter of garden = 41 × 4 = 164 m.

21. 251 L 402 ml × 12
301 6 L 8 24 ml

22. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100

23. Distance covered in 1 round = 126 × 4
= 504 dm
The total dfistance covered in 3 rounds
= 504 × 3
= 1512 dm

24.

	Marks scored	Tally marks
English	42	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||
Maths	38	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||
Science	43	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||
Social Science	30	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Hindi	35	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸

Test Yourself – 2

Section A

1. (c) Quotient is obtained = 5,984

2. (d) $\frac{4}{16} = \frac{1}{4}$ is odd one out

3. (a) $\frac{3\text{ L }450\text{ ml} \times 14}{48,300\text{ ml}}$

4. (c) If cost of 8 articles is ₹ 984

So, the cost of 1 articles is ₹ $\frac{984}{8}$

= ₹ 123

5. (c) 90°

6. (d) A circle has infinite lines of symmetry.

7. (d)

8. (a) origin

Section B

9. $\frac{13}{2}$ is the greatest

10. 540 ml = $\frac{540}{1000}$ L = 0.54 L

11. Railway lines

12. A11, B12, C13, D14 E15 F16

13. 9999876

14. $\frac{2}{5}$ of 30 hours = 12 hours = 12 × 60

= 720 minutes

15. Sum of two numbers = 65,25,871

one number = – 42,00,889

other number = 23,24,982

Section C

16. 10,998 + 54,659 – 30,625

= 65,657 – 30,625 = 35,032

17. $\frac{3}{11} > \frac{2}{11}$

18. 378 of books are arranged in shelf = 1

4,70,988 books are arranged in self

= $\frac{4,70,988}{378}$ = 1246 shelves

$$
\begin{array}{r}
1246 \\
378\overline{)4,70,988} \\
-378 \\
\hline
929 \\
-756 \\
\hline
1738 \\
-1512 \\
\hline
2268 \\
-2268 \\
\hline
0
\end{array}
$$

19. Length of rectangular box = 18 cm

And breadth of rectangular box = 7 cm

Perimeter of rectangular box = 2(18 + 7)

= 2 × 25

= 50 cm

And area of rectangular box = 18 × 7

= 126 cm^2

20. Price of hand bad is ₹ 1500

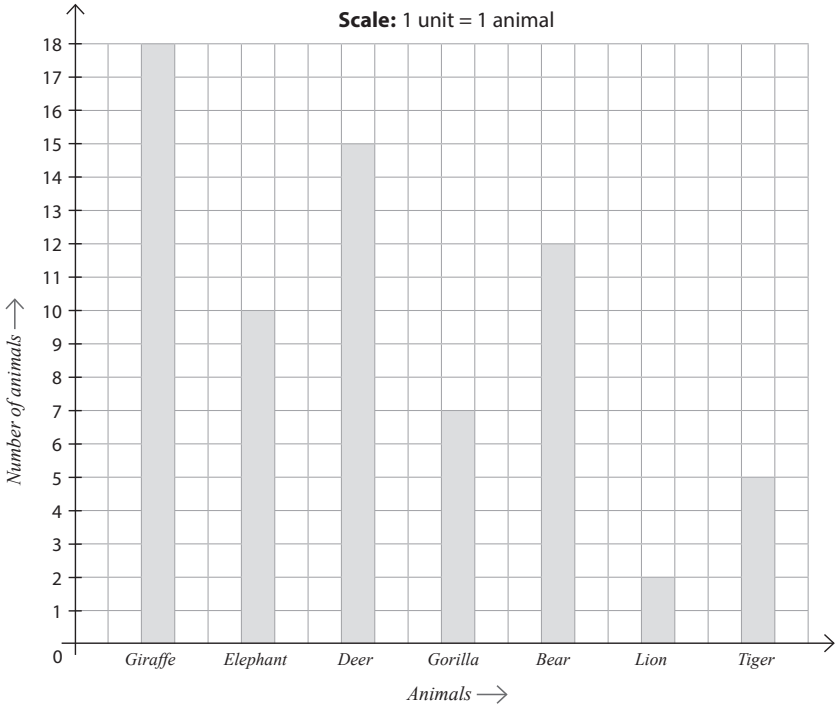
Price of a jacket is ₹ 2500

And price of a coat is + ₹ 1000

Total amount to be paid = ₹ 5000

Answer Key 3 to 5

21.



22. 22 hrs 58 mins 26 secs
+ 12 hrs 22 mins 28 secs
34 hrs 80 mins 54 secs
= 35 hrs 20 mins 54 secs

23. Factors of 28 = 1, 2, 4, 7, 14, 28

24. Place value of 5 = 50000
Place value of 5 = – 500
Difference = 49500

❑❑