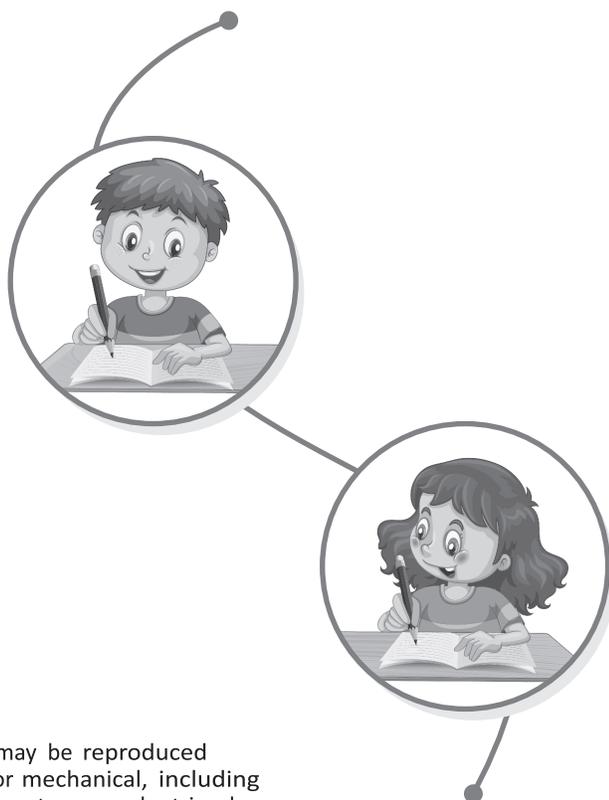


Teachers'
Manual

MATHEMATICS

1 to 5



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4 Mathematics Answer Key 1 to 5

- A. 1. 51, 52, 54, 59 2. 60, 62, 64, 65
 3. 70, 71, 78, 79 4. 80, 82, 83, 84
 5. 94, 95, 96, 97 6. 52, 53, 54, 55

Creative Approach

- A. Multiple Choice Questions
 1. (a) 2. (a) 3. (c)
 4. (b) 5. (a)
- C. Do Yourself
 D. Do Yourself



CHAPTER-5

Understanding Skip Counting

- A. 1. 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29
 2. 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48,
- B. 1. 0, 2, 4, 6, 8, 10, 12
 2. 14, 16, 18, 20, 22, 24
 3. 26, 28, 30, 32, 34, 36
- C. 4. 10 5. 8
 6. 6 7. 4
 8. Tuesday
- D. 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60
 E. 20, 30, 40, 60, 70, 80, 90

Creative Approach

- A. 1. (a) 2. (b) 3. (c) 4. (a)
 B. Do Yourself
 C. 36, 42, 48
 D. 6, 8, 12, 14, 16, 20



CHAPTER-6

Addition

- A. In each case, first write the sum in the box and then mark the correct addition sentence.
1. $5 + 3$ 2. $0 + 2$ 3. $1 + 3$
 4. $5 + 2$ 5. $0 + 1$ 6. $1 + 2$
 7. $4 + 6$ 8. $2 + 7$
- B. Let us try adding on out fingers. See one example.
1. 86 2. 34 3. 67
 4. 17 5. 65 6. 21
 7. 19 8. 28 9. 26
 10. 86 11. 5 12. 58
 13. 83 14. 26 15. 18
 16. 58 17. 68 18. 88
 19. 46 20. 25

- F. 1. 15 2. 24
 $\begin{array}{r} + 18 \\ \hline 33 \end{array}$ $\begin{array}{r} + 24 \\ \hline 48 \end{array}$
 3. 12 4. 36
 $\begin{array}{r} + 9 \\ \hline 21 \end{array}$ $\begin{array}{r} + 8 \\ \hline 44 \end{array}$
 5. 12 6. $6 + 9 = 15$
 $\begin{array}{r} + 8 \\ \hline 20 \end{array}$

G. Find the sum.

1. 47 2. 78
 3. 51 4. 49
 5. 68 6. 98
 7. 57 8. 66
 9. 74 10. 99

H. 38

I. 37

Creative Approach

- A. Multiple Choice Questions.
 1. (a) 20 2. (b) 4
 3. (c) Both a & b 4. (c) $10 + 6$
- B. Fun Zone
 48
- C. Let us Explore
 1. $3 + 3 = 6$ 2. $4 + 8 = 12$
- D. 2, 9, 7, 8, 6



CHAPTER-7

Subtraction

Page-48

53, 49, 50

A. Find the difference.

1. 46 2. 39 3. 95
 4. 70 5. 15 6. 60
 7. 86 8. 80 9. 61
 10. 91 11. 54 12. 53

B. In each case, mark the correct subtraction sentence.

1. $3 - 1 = 2$ 2. $4 - 0 = 4$
 3. $9 - 6 = 3$ 4. $10 - 6 = 4$

C. Subtract the following :

1. 19 2. 53 3. 64
 4. 11 5. 26 6. 10
 7. 17 8. 21

- D. (i) 47, (ii) 47, (iii) 33, (iv) 33, (v) 11, (vi) 33,
(vii) 21, (viii) 33, (ix) 21, (x) 05

E. Subtract to find the difference.

1. 81 2. 52 3. 20 4. 10
5. 91 6. 45 7. 14 8. 83

F. Solve the following :

1.
$$\begin{array}{r} 36 \\ -12 \\ \hline 24 \end{array}$$

2.
$$\begin{array}{r} 25 \\ -13 \\ \hline 12 \end{array}$$

G. In each set tick the correct number.

1. 5 2. 35 3. 65
4. 37 5. 7 6. 79

H. In each set write the correct number.

1. 90 2. 9 3. 77
4. 49 5. 2 6. 45
7. 23 8. 1 9. 64

I. Frosty Fact Families :

1. $7 + 1 = 8$ 2. $5 + 1 = 6$
 $1 + 7 = 8$ $1 + 5 = 6$
 $8 - 1 = 7$ $6 - 5 = 1$
 $8 - 7 = 1$ $6 - 1 = 5$
3. $2 + 3 = 5$ 4. $4 + 5 = 9$
 $3 + 2 = 5$ $5 + 4 = 9$
 $5 - 3 = 2$ $9 - 5 = 4$
 $5 - 2 = 3$ $9 - 4 = 5$

Creative Approach

A. Multiple Choice Questions.

1. (a) 0 2. (b) 8
3. (a) = 4. (a) 30
5. (a) $80 - 40$

B. Fun Zone

15

C. Let us Explore

1. $28 - 22 = 6$ 2. $98 - 76 = 22$

D. Do Yourself



CHAPTER-8 Multiplication

A. Let us learn to multiply with rown of pictures.

1.  $3 + 3 = 6$ $3 \times 2 = 6$

2.  $4 + 4 + 4 + 4 = 16$ $4 \times 4 = 16$

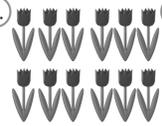
3.  $3 + 3 + 3 = 9$ $3 \times 3 = 9$

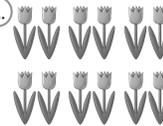
4.  $5 + 5 + 5 + 5 = 20$ $5 \times 4 = 20$

5.  $2 + 2 + 2 + 2 + 2 + 2 = 12$ $2 \times 6 = 12$

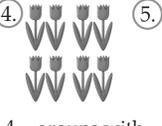
6.  $6 + 6 + 6 = 18$ $6 \times 3 = 18$

B.

1.  4 groups with 3 tulips in each
There are 12 tulips in total
 $4 \times 3 = 12$

2.  6 groups with 2 tulips in each
There are 12 tulips in total
 $6 \times 2 = 12$

3.  3 groups with 3 tulips in each
There are 9 tulips in total
 $3 \times 3 = 9$

4.  4 groups with 2 tulips in each
There are 8 tulips in total
 $4 \times 2 = 8$

5.  8 groups with 2 tulips in each
There are 16 tulips in total
 $8 \times 2 = 16$

C. Answer the following.

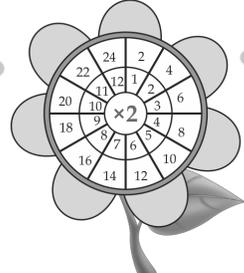
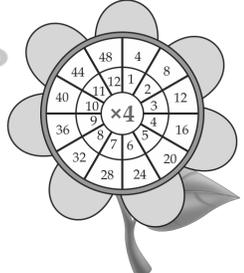
1. $4 + 4 + 4 + 4 = 16$
2. $3 + 3 + 3 + 3 = 12$ or $4 + 4 + 4 = 12$
3. $4 + 4 + 4 + 4 + 4 = 20$ or $5 + 5 + 5 + 5 = 20$
4. $3 + 3 + 3 + 3 + 3 = 15$ or $5 + 5 + 5 = 15$

D. 21, 24, 48, 12, 27, 18, 63, 8

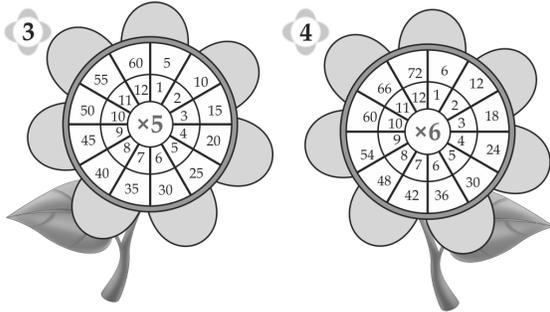
E. Practice with Tara. Find the product.

1. 84 2. 40 3. 88
4. 96 5. 99 6. 39
7. 44 8. 33

F.

1.  2. 

6 Mathematics Answer Key 1 to 5



G. Show each multiplication word problem. Show your work.

- | | |
|---|--------------------------------|
| 1. 17
$\times 2$
<hr/> 34 | 2. 7
$\times 8$
<hr/> 56 |
| 3. $12 \times 2 = 24$
$10 \times 2 = 20$
24
$+ 20$
<hr/> 44 | 4. 3
$\times 6$
<hr/> 18 |

Creative Approach

A. Multiple Choice Questions.

- | | |
|--------------|------------|
| 1. (a) 54 | 2. (b) 60 |
| 3. (c) 7 + 7 | 4. (b) 100 |

B. Fun Zone

120

C. Let us Explore

- | | |
|----------------------|----------------------|
| 1. $5 \times 3 = 15$ | 2. $7 \times 5 = 35$ |
|----------------------|----------------------|

D. 3, 6, 4, 4, 32, 2, 4, 8



CHAPTER-9

Sentences And Equations

A. Match each addition sentence to the correct addition equation.

- | | | |
|--------|--------|--------|
| 1. (b) | 2. (a) | 3. (d) |
| 4. (c) | 5. (h) | 6. (g) |
| 7. (f) | 8. (e) | |

B. Try the sum $37 + 3$ using this number line.

40

C. Add 10 Mentally by completing the chart.

20, 88, 53, 69, 62, 37, 41, 94, 19, 55

D. Parts make a whole. Complete the WHOLE bond.

- | | | |
|------|------|-------|
| 1. 9 | 2. 7 | 3. 6 |
| 4. 4 | 5. 8 | 6. 3 |
| 7. 7 | 8. 8 | 9. 10 |

E. Write the missing number in the mitten.

- | | | |
|-------|-------|-------|
| 1. 1 | 2. 2 | 3. 5 |
| 4. 4 | 5. 4 | 6. 2 |
| 7. 2 | 8. 5 | 9. 5 |
| 10. 1 | 11. 0 | 12. 3 |

Creative Approach

A. Multiple Choice Questions.

- | | |
|--------------------|-----------|
| 1. (a) $0 + 5 = 5$ | 2. (b) 7 |
| 3. (c) 11 | 4. (c) 14 |

C. Let us Explore

- Three plus two is equal to five
- Five plus seven is equal to twelve
- Seven plus three is equal to ten
- Two plus two is equal to four.

D. Activity Zone

- | | | | | |
|----|----|----|----|----|
| 5 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 |
| 5 | 5 | 5 | 5 | 5 |
| 10 | 10 | 10 | 10 | 10 |



CHAPTER-10

Tens and Ones (Grouping)

A. Example :

- 2 tens + 2 ones = 22
- 1 tens + 7 ones = 17
- 2 tens + 0 ones = 20
- 2 tens + 1 ones = 21
- 3 tens + 5 ones = 35
- 1 tens + 9 ones = 19

B. Example

- | | |
|-------|--------------|
| 1. 9, | $6 + 9 = 15$ |
| 2. 7, | $4 + 7 = 11$ |

C. Example

- | | |
|--------------|--------------|
| 1. $45 < 47$ | 2. $31 < 34$ |
| 3. $24 < 25$ | 4. $34 < 35$ |
| 5. $14 < 24$ | 6. $28 = 28$ |

- D.
- | | |
|---------------------|---------------------|
| 1. 7 tens + 8 ones | 2. 1 tens + 0 ones |
| 3. 9 tens + 0 ones | 4. 0 tens + 3 ones |
| 5. 3 tens + 0 ones | 6. 8 tens + 1 ones |
| 7. 1 tens + 1 ones | 8. 9 tens + 9 ones |
| 9. 0 tens + 5 ones | 10. 3 tens + 4 ones |
| 11. 4 tens + 0 ones | 12. 3 tens + 5 ones |
| 13. 4 tens + 5 ones | 14. 8 tens + 9 ones |
| 15. 6 tens + 0 ones | 16. 6 tens + 1 ones |

Creative Approach

A. Multiple Choice Questions.

1. (b) two 2. (c) 5
3. (a) 3 4. (b) Tens

B. Let us Explore

1. 52 2. 65
3. 97 4. 88



CHAPTER-11
Comparing Numbers

Creative Approach

A. Multiple Choice Questions.

1. (b) 20 2. (b) 7
3. (c) 34 4. (b) 6

B. Do Yourself

C. Let us Explore

- (a) $54 > 45$ (c) $76 < 78$
(b) $89 < 96$ (d) $92 > 29$

D. Do Yourself



CHAPTER-12
Time

 3 : 00	 7 : 00	 10 : 30	 5 : 00
 8 : 30	 2 : 00	 1 : 30	 6 : 00
 9 : 30	 12 : 00	 11 : 30	 4 : 00

B. Help Nick to figure out his busy day.

1. Tuesday 2. Four
3. Friday 4. Saturday

C. Read each clue, then select the correct month.

1. June 2. February
3. December 4. May
5. September 6. July
7. April 8. October

9. March 10. August
11. January 12. November

Creative Approach

A. Multiple Choice Questions.

1. (b) Rajat
2. (c) 6 O' clock
3. (b) 12
4. (c) Sharpening a pencil
5. (a) 60 Minutes

B. Do Yourself

C. Let us Explore

1. Friday 2. Wednesday

D. Activity Zone

- (a) 02 : 30 (b) 07 : 30



CHAPTER-13
Money

A. Draw lines between the items and the correct coin or rupee note.

1. (c) 2. (e) 3. (f)
4. (h) 5. (b) 6. (a)
7. (g) 8. (d)

Creative Approach

A. Multiple Choice Questions.

1. (a) 2. (b) 3. (a) 4. (c)

B. Fun Zone

1. ₹ 10 2. ₹ 25

C. Let us Explore

1. ₹ 50 - ₹ 5 = ₹ 45
2. ₹ 10 + ₹ 80 = ₹ 90



CHAPTER-14
Measurement

A. Write 1, 2, 3 from the shortest to the longest.

1. 3, 1, 2 2. 1, 3, 2 3. 1, 2, 3

D. Answer the following.

1. Measuring tape, Level
2. 2 meter
3. bottle
4. Pencil
5. Pencil Sharpener
6. 15

Creative Approach

A. Multiple Choice Questions.

1. (c)
2. (a)
3. (b)
4. (c)

B. Do Yourself

C. Let us Explore

$$1 + 3 + 5 = 9 \text{ litre}$$

D. Activity Zone

150 gm.



CHAPTER-15

Data Handling

A. Nick the farmer has a farm. Look at the picture.

Write the number of farm animals he has.

1. Horse
2. Four
3. Chickens
4. Pig
5. 15

B. Read the picture graph to find out how many people like different kinds of ice cream.

1. 4
2. 5
3. 3
4. 2
5. Chocolate Chip
6. Strawberry

D. The picture graph shows how many birds these children saw one morning.

1. 5
2. Seema
3. 3
4. 11

Creative Approach

A. Multiple Choice Questions.

1. (b) 6
2. (a) 2
3. (c) 1

B. Fun Zone

1. 6
2. 3
3. 2
4. 4

C. Let us Explore

1. 51
2. 62
3. Pencil box



Test Yourself

1. 23, 31
2. 8, 16, 14, 19
3. 36, 42, 48
4. $3 + 3 = 6$
5. $28 - 22 = 6$
6. $5 \times 3 = 15$
7. (a) Three plus two is equal to five
(b) Five plus seven is equal to twelve
(c) Seven plus three is equal to ten
(d) Two plus two is equal to four
8. 52
9. (a) $54 > 45$ (b) $89 < 98$
(c) $76 < 78$ (d) $92 > 29$
10. Friday
11. $50 - 5 = ₹ 45$
12. 9 litre
13. Look at the chart given below and answer the given equations.
(i) 51
(ii) 62
(iii) Pencil box

10 Mathematics Answer Key 1 to 5

R. Read the clues to find the secret number.

- (i) 7 (ii) 20
(iii) 13 (iv) 9

Creative Approach

A. Multiple Choice Questions.

1. (b) 9 Ninth 2. (c) 6
3. (b) 9 4. (c) 72
5. (b) 39 6. (a) 80 + 9

B. Fun Time

1. The Sun 2. 344456

C. Let Us Explore

1. 50 2. 21

D. Activity Zone

1. 18



CHAPTER-2

Addition And Subtraction Basics

A. Find the sum.

1. 10 2. 16 3. 12
4. 18 5. 19 6. 14
7. 15 8. 17 9. 11

B. Solve the sum via number strings. Complete the addition problems to discover the phrase!

1. A 2. L 3. L
4. T 5. H 6. E
7. B 8. E 9. S
10. T

Phrase : ALL THE BEST

C. Solve the following :

1. 21 2. 93 3. 78
4. 46 5. 44 6. 78
7. 50 8. 67 9. 46
10. 79 11. 83 12. 71

D. Solve the following :

1. 112 2. 94 3. 87
4. 95 5. 148 6. 72
7. 26 8. 84 9. 23
10. 69

E. Do the problems below. Then find your answers hidden in the carnival scene and encircle them. Can you find all twelve answers ?

1. 75 2. 60 3. 81
4. 50 5. 44 6. 42

7. 95 8. 97 9. 45

10. 58 11. 85 12. 91

F. 1. 41 2. 53 3. 70

4. 50 5. 65 6. 42

7. 71 8. 62 9. 44

10. 74

blizzard, fog, frost, hail, lightning, rain, snow, storm, thunder, wind

G. Find the difference. Use the key below to colour in each space.

1. 34 2. 17 3. 50

4. 43 5. 43 6. 17

7. 04 8. 50 9. 17

10. 04 11. 34

H. 1. Payal picked strawberries = 56

Payal's sister picked strawberries = 38

Total picked strawberries = 56

$$+ 38$$

$$\underline{94}$$

2. Leena has a teddy bear collection = 64 Bears

Leena's aunt gave teddy bear = 16 Bears

Total bears Leena has now = 64

$$+ 16$$

$$\underline{80}$$

3. Joy caught fishes = 17

Joy's father caught fishes = 11

Total caught fishes = 17

$$+ 11$$

$$\underline{28}$$

4. Diya gave her friend chris star stickers = 14

Diya gave her friend jiya star stickers = 20

Total star stickers diya give to her friends

$$= 14$$

$$+ 20$$

$$\underline{34}$$

I. 1. Shalini has rupees = ₹ 65

Shalini buys a teddy bear = ₹ 32

Shalini has now = 65

$$- 32$$

$$\underline{₹ 33}$$

2. Aman has rupees = ₹ 82

Aman buys a ping-pong set = ₹ 64

Aman has now = 82

$$- 64$$

$$\underline{₹ 18}$$

3. Dev has rupees = ₹ 76

Each beach ball costs = ₹ 35

Cost of two beach balls = 35 + 35 = ₹ 70

12 Mathematics Answer Key 1 to 5

J. Use the chart to write the missing words. One is done for you.

- | | |
|---------------|------------|
| 1. subtract | difference |
| 2. altogether | total |
| 3. have | left |
| how | many |
| more | |
| 4. equal | |

Creative Approach

A. Multiple Choice Questions

1. (b) 8 2. (a) 8 3. (c) 11
4. (c) 11 5. (a) 12

C. 1. Number of mango trees = 249
Number of guava trees = 179
Number of jamun trees = 56

$$\begin{array}{r} \text{Total number of trees in the garden} = 249 \\ 179 \\ + 56 \\ \hline 484 \end{array}$$

2. Number of nails carpenter had = 85
Number of nails are left = 48
Number of nails carpenter used = 85

$$\begin{array}{r} - 48 \\ \hline 37 \end{array}$$

3. Total number of apples = 324
Number of good apples = 256
Number of rotten apples = 324

$$\begin{array}{r} - 256 \\ \hline 68 \end{array}$$

- D. 34
43
79

**CHAPTER-4
Missing Numbers**

A. Write in NUMBERS

1. 100 2. 199 3. 137
4. 182 5. 189

B. Write in WORDS

1. One hundred twelve
2. One hundred fifty
3. One hundred sixty-two
4. One hundred seventy-eight

5. One hundred ninety-eight
6. One hundred fifteen
7. One hundred ninety-nine
8. One hundred twenty-four

C. Write the number that comes before, after or in between.

- | | | |
|---------|---------|---------|
| 1. 111 | 2. 144 | 3. 133 |
| 4. 116 | 5. 127 | 6. 111 |
| 7. 135 | 8. 175 | 9. 128 |
| 10. 129 | 11. 104 | 12. 168 |
| 13. 127 | 14. 164 | 15. 157 |

- D. 1. 183 (✓) 2. 162 (✓)
3. 153 (✓) 4. 128 (✓)
5. 100 + 80 + 8 (✓) 6. 100 + 90 + 7 (✓)

E. Count the hundreds, tens and ones in the images below. Write the numbers in the boxes.

1. 2 hundreds 1 ten 2 ones = 212
2. 3 hundreds 1 ten 5 ones = 315

F. Write the number for each expanded form.

1. 125 2. 147 3. 113 4. 126

G. Write the expanded form for each number :

1. 100 + 90 + 2 2. 100 + 30 + 6
3. 100 + 60 + 5 4. 100 + 40 + 9

H. Draw a line to match the number to the words.

1. (d) 2. (g) 3. (f) 4. (e)
5. (a) 6. (c) 7. (b)

Creative Approach

A. Multiple Choice Questions

1. (b) 114 2. (a) 120 3. (a) 100, 70, 8

B. Fun Zone

$$100 + 20 + 7$$

C. 1. Number of hens in a farm = 916

$$\text{Number of hens died} = 269$$

$$\begin{array}{r} \text{Number of hens left in the farm} = 916 \\ - 269 \\ \hline 647 \end{array}$$

2. 924

$$\begin{array}{r} - 789 \\ \hline 135 \end{array}$$

- D. 271,
256,
200



CHAPTER-5 Numbers Upto 999

- A. Clap and Answer :**
- | | | |
|-------|-------|-------|
| 1. 10 | 2. 20 | 3. 30 |
| 4. 40 | 5. 50 | 6. 60 |
| 7. 70 | 8. 80 | 9. 90 |
- B. Use the symbols <, >, or = to compare each pair of numbers.**
- | | | |
|-------|-------|-------|
| 1. > | 2. < | 3. > |
| 4. < | 5. < | 6. = |
| 7. < | 8. > | 9. > |
| 10. = | 11. < | 12. < |
- C. Encircle the comparison word suitable for given expression.**
- | | |
|-----------------|-----------------|
| 1. greater than | 2. greater than |
| 3. equal to | 4. less than |
| 5. equal to | 6. less than |
- D. Put the numbers in order from the least to greatest.**
1. 612, 625, 652, 662 2. 537, 573, 735, 776
 3. 537, 559, 565, 597 4. 129, 139, 191, 193
 5. 252, 262, 885, 886 6. 455, 545, 657, 699
 7. 923, 929, 942, 949 8. 404, 479, 789, 790
- E. Fill in the blanks with the missing number in the number sequences below :**
- | | | |
|------|---|---|
| 1. 2 | 6 | 7 |
| 2. 3 | 5 | 6 |
| 3. 0 | 8 | 9 |
| 4. 2 | 0 | 5 |
| 5. 5 | 5 | 5 |
| 6. 9 | 4 | 0 |
- F. Write the numbers in their standard form. One is done for you.**
- | | | |
|--------|--------|--------|
| 1. 428 | 2. 729 | 3. 803 |
| 4. 280 | 5. 333 | |
- G. Write the numbers using words. One is done for you.**
1. three hundred twenty-five
 2. six hundred twenty-one
 3. nine hundred ninety-three
 4. four hundred five
 5. seven hundred fifty
- H. Round off each number to the nearest tens place.**
- | | | |
|-------|-------|-------|
| 1. 40 | 2. 40 | 3. 30 |
|-------|-------|-------|

- | | | |
|--------|---------|--------|
| 4. 30 | 5. 20 | 6. 60 |
| 7. 60 | 8. 10 | 9. 80 |
| 10. 90 | 11. 100 | 12. 40 |

- I. Round off the nearest hundred.**
- | | | |
|---------|---------|---------|
| 1. 100 | 2. 1000 | 3. 700 |
| 4. 100 | 5. 300 | 6. 300 |
| 7. 600 | 8. 100 | 9. 800 |
| 10. 700 | 11. 800 | 12. 400 |
- J. Solve the riddles.**
- | | |
|-------|-------|
| 1. 79 | 2. 83 |
| 3. 29 | 4. 32 |

Creative Approach

- A. Multiple Choice Questions**
1. (a) 385 2. (c) 582 3. (a) Ten's
- C. Let us Explore**
1. 957 2. 135
- D. Activity Zone**
1. 720 balls



CHAPTER-6 Addition and Subtraction Mix-Up

- A. Add to find the sum and then solve the riddle by matching the letters to the blank lines below.**
- | | |
|---------|---------|
| (a) 443 | (s) 689 |
| (l) 979 | (w) 996 |
| (e) 797 | (d) 955 |
| (l) 986 | (t) 454 |
| (l) 944 | (e) 858 |
| (w) 729 | (a) 949 |
| (o) 964 | (h) 884 |
| (e) 799 | (r) 366 |
- swallow the leader
- B. Write the missing numbers in the box.**
- | | |
|---------|---------|
| 1. 7 | 2. 2, 7 |
| 3. 2, 5 | 4. 0, 9 |
- C. Add. Then trace the mole's path to the top. The mole must travel through tunnels with a zero in the sum.**
- 600, 800, 503, 453, 832 830, 766, 971 842
920 660 802 941 522 752 904 756 701
- D. Solve these Problems :**
- | | |
|--|--|
| 1. 204 | 2. 136 |
| $\begin{array}{r} + 148 \\ \hline \end{array}$ | $\begin{array}{r} + 150 \\ \hline \end{array}$ |
| $\underline{\quad 352 \quad}$ | $\underline{\quad 286 \quad}$ |

$$\begin{array}{r} 5. \quad 925 \\ - 349 \\ \hline 576 \end{array}$$

Creative Approach

A. Multiple Choice Questions:

1. (c) 854 2. (a) 899
3. (d) 440 4. (a) 548

B. Fun Zone

432

C. 1. Students appeared in an examination = 790

Number of passed students = 598
Number of failed students = 790

$$\begin{array}{r} - 598 \\ \hline 192 \end{array}$$

2. Number of visitors on first day = 178
Number of visitors on second day = 385
Number of visitors on third day = 167
Total number of visitors = 178

$$\begin{array}{r} 385 \\ + 167 \\ \hline 730 \end{array}$$

D. Activity Zone

1. SEVENTEEN (Across),
SEVENTY EIGHT (Down)
2. ELEVEN 3. EIGHTY
4. SEVEN 5. THREE
6. NINE 7. EIGHTEEN
8. TEN 9. HALE
10. HUNDRED 11. THOUSAND
12. HUNDRED 13. ONE
14. FIVE
15. FOUR (Down), 15. FIFTYTWO (Across)
16. THIRTY 17. ZERO
18. SIXTY 19. TWENTY FIVE



**CHAPTER-7
Multiplication**

A. Fill in the blanks to finish the addition and multiplication sentences.

1. $2 + 2 + 2 = 6$ 2. $5 + 5 + 5 = 15$
 $3, 2 = 6$ 3. $5 = 15$
 $3 \times 2 = 6$ 3. $5 = 15$
3. $1 + 1 + 1 = 3$
 $3, 1 = 3$
 $3 \times 1 = 3$

B. Complete the equations to describe the array.

1. 8 2. 1 3. 3
4. 2 5. 2 6. 3

C. Fill in the blanks to describe the model.

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

- D. 1.** $6 + 6 + 6 = 18$ 2. $3 + 3 = 6$
 $6 \times 3 = 18$ $3 \times 2 = 6$
3. $5 + 5 + 5 = 15$ 4. $5 + 5 + 5 + 5 + 5 = 25$
 $5 \times 3 = 15$ $5 \times 5 = 25$
5. $6 + 6 + 6 + 6 = 24$
 $4 \times 6 = 24$

E. Use repeated addition to find the total number of objects in each question below.

1. $4 + 4 + 4 + 4 = 16$ 2. $4 + 4 + 4 + 4 + 4 = 20$
3. $9 + 9 + 9 = 27$

F. Complete the illustration for each exercise and answer the questions that follow.

1. $6 + 6 + 6 + 6 + 6 = 30$
 $6 \times 5 = 30$
2. $7 + 7 + 7 + 7 = 28$
 $7 \times 4 = 28$

- G. 1.** $7 \times 4 = 28$ 2. $5 \times 5 = 25$
3. $9 \times 3 = 27$ 4. $2 \times 2 = 4$
5. $6 \times 2 = 12$

H. Multiply the numbers in each box and colour the banana with the correct answer.

1. 10 2. 9 3. 8
4. 18 5. 7 6. 24

- I. 1.** Ankita catches snowflakes in hand = 6
 Every snowflake has points = 6
 Ankita collect points = $6 \times 6 = 36$
2. Number of groups teaching lessons = 4
 Number of kids in each group = 5
 Jaya teaching kids = $4 \times 5 = 20$
3. Number of children going on sledding = 6
 Mittens for children = 6 pairs
 Boots for children = 6 pairs
 Total mittens and boots for children
 = 6 pairs + 6 pairs
 = 12 pairs
4. Number of cars waiting to get chains = 4
 Each car has tyres = 4
 Total required chains = $4 \times 4 = 16$ chains

16 Mathematics Answer Key 1 to 5

5. Number of chairlifts = 5
 Peter sits with people on each lift = 4
 Number of people did he sit = 5×4

$$= 20 \text{ people}$$

- J. 1. 16 2. 24 3. 30
 4. 48 5. 120 6. 105
 7. 44 8. 39

K. Find the product using regrouping. Show your work.

1. 147 2. 316 3. 50
 4. 312 5. 64 6. 135
 7. 50 8. 408 9. 304
 10. 352 11. 95 12. 216
 13. 279 14. 637 15. 234
 16. 32 17. 837 18. 325
 19. 88 20. 696 21. 448
 22. 325 23. 111 24. 270
 25. 168

- L. 12, 16, 24, 30, 18, 10, 25, 21, 28

Creative Approach

A. Multiple Choice Questions.

1. (a) 15 2. (b) 6 3. (d) 85

B. Fun Zone

1. $3 \times 2 = 6$ $4 \times 3 = 12$
 $5 \times 3 = 15$ $6 \times 3 = 18$

C. 1. Number of students in each section = 28

$$\begin{aligned} \text{Number of students in 4 such sections} \\ = 28 \times 4 = 112 \end{aligned}$$

2. Number of players in each team = 9

$$\text{Number of teams took part in contest} = 12$$

$$\text{Total players participated in contest}$$

$$= 9 \times 12 = 108$$

D. Activity Zone

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



CHAPTER-8
Division

A. Divide into Equal Groups

1. $24 \div 8 = 3$ 2. $18 \div 2 = 9$
 3. $24 \div 6 = 4$ 4. $10 \div 5 = 2$
 5. $9 \div 3 = 3$

B. Divide the food between the kids & write the division equation.

1. $8 \div 4 = 2$ 2. $6 \div 2 = 3$
 3. $6 \div 3 = 2$ 4. $12 \div 4 = 3$

C. Draw an array for each division problem and record the quotients on the answer line.

1. 5 2. 8 3. 2
 4. 3 5. 3 6. 11

D. What division problems do the arrays represent ?

1. $21 \div 3 = 7$ 2. $21 \div 7 = 3$
 3. $15 \div 3 = 5$

E. Match the repeated subtraction on the Right with the correct division sentence on the left.

1. (b) 2. (c) 3. (e)
 4. (d) 5. (a)

F. Use repeated subtraction to solve $20 \div 5$. Show your work in the space provided.

$$\begin{array}{r} 20 \quad \nearrow 15 \quad \nearrow 10 \quad \nearrow 5 \\ \underline{-5} \quad \underline{-5} \quad \underline{-5} \quad \underline{-5} ; 20 \div 5 = 4 \\ 15 \quad 10 \quad 5 \quad 0 \end{array}$$

G. The Dog Show

1. $\frac{3}{16}$ 2. $\frac{4}{16}$ 3. $\frac{3}{16}$ 4. $\frac{13}{16}$

H. Fraction Quiz

1. $\frac{1}{4}$ 2. $\frac{1}{2}$ 3. $\frac{2}{3}$
 4. $\frac{3}{4}$ 5. $\frac{1}{3}$

I. Answer each question with $\frac{1}{2}$ or $\frac{1}{4}$.

1. $\frac{1}{2}$ 2. $\frac{1}{4}$ 3. $\frac{1}{2}$
 4. $\frac{1}{4}$ 5. $\frac{1}{2}$ 6. $\frac{1}{4}$

J. Write the fraction for which the shaded parts of each shape represent.

1. $\frac{2}{5}$ 2. $\frac{4}{6}$ 3. $\frac{2}{3}$ 4. $\frac{1}{4}$

5. $\frac{1}{2}$ 6. $\frac{3}{8}$ 7. $\frac{3}{6}$ 8. $\frac{3}{4}$
 9. $\frac{3}{4}$ 10. $\frac{2}{6}$

Creative Approach

- A. Multiple Choice Questions.
 1. (a) 8 2. (b) 9 3. (c) 8
 4. (d) 8 5. (a) 9
- B. Fun Zone
 2 6
 9 5
- C. 1. Number of toffees = 54
 Number of friends = 9
 Each friend get toffee = $54 \div 9 = 6$



**CHAPTER-9
 Measurement**

- A. Underline the measuring keyword in each object with the correct measuring equipment. The first one is done for you.
 1. amount of liquid 2. amount of water
 3. weight 4. weight
 5. length 6. height
 7. weight
- B. Encircle the object that has more mass :
 1. (b) Building 2. (a) Apple
 3. (b) Dog 4. (a) Elephant
 5. (a) Computer

Creative Approach

- A. Multiple Choice Questions
 1. (a) m 2. (b) cm 3. (d) 1000
 4. (c) L 5. (d) 1 6. (c) kg
- B. Fun Zone
 equal to
 more than
 less than
- C. 1. Sunita purchased flour = 78 kg 800 gm
 Sunita used flour = 48 kg 538 gm
 Flour was left = kg gm
 78 800
 - 48 538
 30 262
 = 30 kg 262gm.

2. A car tank is filled with diesel = 26L 885 mL
 Required more diesel = 8L, 436 mL
 Total capacity of the tank of the car =
 L mL
 26 885
 + 8 436
 35 321
 = 35L 321mL



**CHAPTER-10
 Geometry**

- A. Encircle the correct answer for each of the following :
 1. Circle 2. Square
 3. Triangle 4. Rectangle
 5. Semi-circle 6. Hexagon
 7. Parallelogram 8. Trapezium
 9. Pentagon
- B. Fill in the following table.
 1. 3, 3 2. 4, 4 3. 4, 4
 4. 4, 4 5. 4, 4 6. 5, 5
 7. 6, 6
- C. Each rectangle and square bellow can be made of identical small squares. How many squares are required to fill each shape ? The first one is done for you.
 1. 3 2. 6 3. 4
 4. 9 5. 8 6. 4
- F. Find the perimeter of the shapes shown below.
 1. $4 + 3 + 4 + 3 = 14$ cm
 2. $6 + 3 + 6 + 3 = 18$ ft
 3. $8 + 8 + 8 = 24$ inch
 4. $6 + 4 + 6 + 4 = 20$ m
 5. $6 + 8 + 6 + 3 = 23$ cm
 6. $7 + 5 + 9 = 21$ ft
 7. $7 + 9 + 9 + 7 + 9 + 9 = 50$ cm
 8. $12 + 4 + 12 + 4 = 32$ cm
 9. $8 + 13 + 13 = 34$ ft
- G. If each of the squares is 1 cm (shown below), find the area for the shapes shown below.
 1. 4 cm^2 2. 10 cm^2
 3. 6 cm^2 4. 8 cm^2
 5. 12 cm^2 6. 7 cm^2
 7. 20 cm^2 8. 21 cm^2

- H. 1. Cone 2. Sphere
 3. Cylinder 4. Cube
 5. Cuboid 6. Cone

Creative Approach

- A. Multiple Choice Questions
 1. (d) Hexagon 2. (d) 0
 3. (c) square 4. (c) pentagon
 5. (c) 3
- B. Fun Zone
 1. Cone 2. Cube
 3. Sphere
- C. Activity Zone
 (a) Circle (b) Triangle
 (c) Trapezium (d) Hexagon
 (e) Right-Angle Triangle (f) Square



**CHAPTER-11
 Patterns**

- C. Look for the number patterns. Encircle them.

100	98	96	94	92	90	88	
22	23	24	25	26	27		
95	90	85	80	75	70		
60	70	80	90	100			
57	58	59	60	61	62		
10	20	30	40	50			
15	20	25	30	35	40	45	
2	4	6	8	10	12		

Creative Approach

- A. Multiple Choice Questions
 1. (a) 20 2. (d) 30
 3. (d) 40 4. (a) 900
 5. (b) 20, 25, 30, 35, 40
- C. Activity Zone
 1. 7A 2. 5F
 3. 8C 4. 6H
 5. 3B 6. 7D
 7. 5E 8. 4G
 9. 2A 10. 1F
 11. 5C 12. 8H
 13. 6B 14. 4D
 15. 2E



**CHAPTER-12
 Time**

- A. Write the time under the clocks.
 1. 11 o'clock 2. 3 o'clock
 11:00 03:00
 3. 7 o'clock 4. 9 o'clock
 07:00 09:00
 5. 2 o'clock 6. 8 o'clock
 02:00 08:00
 7. 6 o'clock 8. 10 o'clock
 06:00 10:00
 9. 4 o'clock
 04:00
- B. TV Times : Kiki wants to have a good time with his pals. Help him figure out what show is on.
 1. 6:00 2. 04:30
 3. 05:00 4. 06:30
- F. Draw the watch hands
 1. 06:00 2. 04:30
 3. 09:00 4. 07:30
 5. 10:00 6. 01:00
 7. 12:30 8. 02:00
 9. 10:00 10. 11:30
- G. Answer each question below. Use a calendar if you don't know the answer.
 1. 12 2. 7
 3. 30 4. Saturday
 5. July 6. 11th, February
 7. October 8. 27th, September
 9. 9 June 10. 16th, August
 11. Thursday 12. 365

Creative Approach

- A. Multiple Choice Questions
 1. (a) 9 o'clock 2. (b)
 3. (b) 12 : 25 4. (c) 60
 5. (a) 60 6. (d) 24
- C. Let us Explore
 1. 4 days 2. 4 days
- D. Activity Zone
 1. SATURDAY 2. FRIDAY
 3. THURSDAY 4. WEDNESDAY
 5. MONDAY 6. SUNDAY



20 Mathematics Answer Key 1 to 5

B. Answer the following.

1. Science
2. Maths and English
3. Music
4. 6
5. 3

C. Answer the following :

1. Ritu
2. Pritam
3. 8
4. 1
5. 21

Creative Approach

A. Multiple Choice Questions

1. (a) data
2. (b) vertical
3. (d) pictograph
4. (c) Scale

C. Let us Explore

1. 50
2. 5
3. 12
4. Red
5. Black

D. Activity Zone

- (a) 5
- (b) 7
- (c) 3
- (d) 7
- (e) 8
- (f) 5

Test Yourself-1

1. 50
2. 3
3. 484
4. 647
5. 957
6. 192
7. 112
8. 6
9. 30 kg 262 g
10. ₹ 3

Test Yourself-2

1. 57
2. 23th March
3. ₹ 44
4. 700
5. 56
6. 20,000
7. 6
8. 8
9. 436
10. 25, 30
11. 20
12. 63
13. 68
14. Feet

Mathematics - 3

Review Race

1. (a) Four hundred fifty-eight
(b) 396
(c) Five hundred ninety-two
(d) 907
2. (a) < (b) < (c) > (d) >
3. 127, 281, 291, 297, 729
4. 552, 525, 340, 255, 252
5. (a) $300 + 4$ (b) $500 + 20 + 1$
6. (a) 6 (b) 0 (c) 90
7. (a) 407 (b) 699
(c) 832 (d) 756
8. (a) 551 (b) 212
(c) 114 (d) 311
9. (a) 66 (b) 66
(c) 80 (d) 89
10. (a) 5 (b) 6 (c) 223
11. 7
12. April, June, Sept., Nov.
13. Jan, March, May, July, Aug, Oct, Dec.
14. Do yourself
15. (a) 02 : 30 (b) 08 : 30
(c) 06 : 00
16. (a)

m	cm
440	22
<u>+ 322</u>	<u>44</u>
<u>762</u>	<u>66</u>

 (b)

L	mL
141	273
<u>+ 345</u>	<u>130</u>
<u>486</u>	<u>403</u>
17. (a)

350 m
<u>- 154 m</u>
<u>196 m</u>

 (b)

952 kg
<u>- 452 kg</u>
<u>500 kg</u>

(c)

₹ 861
<u>- ₹ 857</u>
<u>₹ 004</u>
18. Number of fruits in basket = 984
Number of fruits are rotten = 345
Number of fruits are good to eat =

984
<u>- 345</u>
<u>639</u>
19. Number of beads are use to make a necklare = 125
Beads are required to make 7 such necklare

125
<u>× 7</u>
<u>875</u>

 Beads

20. Number of balls pack in one box = 8
Number of boxes required to pack 168 balls
 $= 168 \div 8 = 21$
□□

CHAPTER-1 Large Numbers

- B. Find the missing numbers :
 1. 10 2. 2000 3. 1000
 4. 60 5. 1000 6. 8000
 7. 60 8. 300 9. 1000
 10. 2
- C. Write each number is standard form.
 1. $1000 + 300 + 40 + 5 = 1345$
 2. $1000 + 300 + 80 + 7 = 1387$
 3. $1000 + 500 + 60 + 2 = 1562$
 4. $1000 + 1000 + 1000 + 8 = 3008$
 5. 6143 6. 9999
 7. 4061 8. 7800
- D. Write the numbers in word form.
 2. Two thousand four hundred seventy six
 3. Six thousand three hundred ninety three
 4. One thousand five hundred forty one
 5. Three thousand four hundred forty four
- E. Write the numbers in standard form on the blank.
 2. 3,621 3. 5,239 4. 1,183 5. 9,375
- F.
 3. $300 + 30 + 3 = 333$
 5. $700 + 3 = 703$
 6. $3,000 + 600 + 40 + 4 = 3,644$
 7. $600 + 7 = 607$
 9. $1,000 + 10 = 1,010$
- G. Rewrite each list of numbers in order, from the least to the greatest.

2,867	6,070	6,707	6,770	7,007
3,2,998	8,298	8,802	8,928	9,009
4,3,000	3,337	3,407	4,307	4,407
- H. Rearrange each set of digits to make the largest number possible.
 1. 9820 2. 7751 3. 6420
 4. 4320 5. 9721 6. 6100
- I. Rearrange each set of digits to make the smallest number possible.
 1. 1278 2. 2349 3. 1156
 4. 6789 5. 3566 6. 3599

22 Mathematics Answer Key 1 to 5

J. Use only the digits in the box to answer the questions. Each digit may be used only one time per answer. You cannot repeat digits.

1. 543 2. 1234
 3. 53 4. 1235
 5. 254 6. 5243
 7. 51 8. $5432 - 123 = 5309$

K. Fill in the missing numbers by skip counting forward or backwards.

1. 4414, 4410, 4408
 2. 1565, 1570, 1585
 3. 2280, 2270, 2250
 4. 5710, 6010, 6110

L. Identify the skip counting pattern of the following number lines.

1. 1000 Forwards 2. 500 Forwards

M. Write $<$, $>$, or $=$ on each line.

1. $<$ 2. $>$ 3. $<$
 4. $<$ 5. $>$ 6. $=$

N. Encircle the greater amount in each pair.

1. 2,929 2. 4,575 3. 9,990

O. Encircle the smaller amount in each pair.

1. 6,789 2. 7,008 3. 3,079

P. On each line, write out the words, "is greater than," "is less than," or "is equal to."

1. is less than 2. is greater than
 3. is equal to 4. is greater than

Q. Read and answer the questions.

1. Brijesh 2. Tuesday

R. Decode the numbers. Write the real numbers above the symbol. Then use $<$, $>$ or $=$ to compare. The first one has been done for you.

1. $6005 < 6010$ 2. $2127 = 2127$
 3. $5142 > 5124$ 4. $5899 < 6027$

S. Round off these numbers to the nearest ten. If you round up, draw a circle around your answer. If you round down, draw a box around your answer.

1. 60 2. 10 3. 30
 4. 80 5. 60 6. 40
 7. 40 8. 80

T. Round off these numbers to the nearest hundred. If you round up, draw a circle around your answer. If you round down, draw a box around your answer.

1. 500 2. 800 3. 700
 4. 600 5. 900 6. 300
 7. 700 8. 400

U. Solve the puzzles about odd and even numbers.

1. 10 2. 12 3. 25
 4. 15 5. 36 6. 25
 7. 100 8. 333

V. Write the number using decimal system numerals.

1. 4 2. 5 3. 6
 4. 11 5. 17 6. 29
 7. 24 8. 9 9. 3
 10. 2 11. 25 12. 8

W. Write the Roman numeral.

1. X 2. XV 3. XVI
 4. XXIV 5. XL 6. XIX
 7. XXIX 8. XLIV 9. II
 10. XXXIX 11. XXX 12. IX

Creative Approach

A. Multiple Choice Questions

1. (c) 3099 2. (a) 4198 3. (c) 8743
 4. (c) 30 5. (b) 8180

B. Fun Zone

1. 100 Forwards 2. 300 Forwards

C. Let us Explore

1. 4000 2. 100 3. 60 4. 2 □□

**CHAPTER-2
Addition**

Crossword Puzzle

25	+	26	=	51	55	+	72	=	127
				+					+
15	+	32	=	47	66	+	47	=	113
				=					=
23	+	98	=	121					

A. 1.

	76	+	23	
	70		20	3
Tens	$70 + 20 = 90$			
Ones	$6 + 3 = 9$			
	$90 + 9 = 99$			

2.

	90	+	19	
	90		10	9
Tens	$90 + 10 = 100$			
Ones	$0 + 9 = 9$			
	$100 + 9 = 109$			

24 Mathematics Answer Key 1 to 5

K. Use column addition to solve each problem. Use the empty box to the right of each problem to show your work. Write your answer on the blank line for each question.

$\begin{array}{r} 1. \quad 2347 \\ + 2483 \\ \hline 4830 \end{array}$	$\begin{array}{r} 2. \quad 1497 \\ + 840 \\ \hline 2337 \end{array}$
$\begin{array}{r} 3. \quad 5689 \\ + 9452 \\ \hline 15141 \end{array}$	$\begin{array}{r} 4. \quad 6268 \\ + 4555 \\ \hline 10823 \end{array}$

L. Write each number. Then solve the riddle by matching the letters to the blank lines at the bottom of the page.

5027	5270	3616
3660	2132	2102
1536	1036	9419
9409	8888	

TO THE BAT TUB

Creative Approach

A. Multiple Choice Questions.

1. (a) 9000 2. (a) 96 3. (b) 6630
4. (c) 80 5. (b) 4099

B. Do yourself

- C. 1. Anita calls in USA for 30 minute, it cost = Rs. 240
Anita calls in Canada for 31 minute, it cost = Rs. 48

$$\begin{array}{r} \text{Total bill cost} = \text{Rs } 240 \\ + \text{Rs } 48 \\ \hline \text{Rs } 288 \end{array}$$

2. Raju caught fish on Tuesday = 65
Raju Caught fish on Wednesday = 65 + 65 = 130
Total fish caught in both days = 130

$$\begin{array}{r} + 65 \\ \hline 195 \text{ fish} \end{array}$$

D. Do yourself



CHAPTER-3
Subtraction

A. Subtract each of the given question to find the differences.

1. 81 2. 52 3. 20 4. 10
5. 21

- B. 1. 18 (even) 2. 25 (odd)
3. 14 (even) 4. 07 (odd)

- C. 1. 092 2. 135 3. 050
4. 035 5. 123 6. 076

D. Calculate each difference.

- | | | |
|----------|----------|----------|
| 1. 6163 | 2. 2127 | 3. 3323 |
| 4. 4314 | 5. 3494 | 6. 2209 |
| 7. 1818 | 8. 3566 | 9. 0716 |
| 10. 2626 | 11. 1387 | 12. 3273 |
| 13. 3093 | 14. 0623 | 15. 2680 |

E. 1. Ring toss game prizes = 1000

$$\begin{array}{r} \text{Customers have already won prizes} = 300 \\ \text{prizes are left} = 1000 \\ - 307 \\ \hline 693 \text{ prizes} \end{array}$$

2. Total number of sandwiches at the carnival = 2,000

$$\begin{array}{r} \text{Number of sandwiches sold} = 1259 \\ \text{Number of sandwiches are left} = 2000 \\ - 1259 \\ \hline 741 \end{array}$$

F. 1. (i) greater number = 19

$$19 - 9 = 10$$

(ii) greater number = 75

$$75 - 57 = 18$$

(iii) greater number = 531

$$531 - 351 = 180$$

(iv) greater number = 315

$$315 - 215 = 100$$

(v) greater number = 221

$$221 - 212 = 9$$

(vi) greater number = 4237

$$4237 - 3427 = 810$$

(vii) greater number = 1171

$$1171 - 1117 = 54$$

(viii) greater number = 3725

$$3725 - 3275 = 450$$

2. (i) 0 (ii) 0

(iii) 1835 (iv) 1234

(v) 5712 (vi) 0

3. (i) 56 - 45 = 11 (ii) 556 - 445 = 111

(iii) 5556 - 4445 = 1111

4. Let another number is x

one of the number is 231

according to question

$$x + 231 = 588$$

$$x = 588 - 231$$

$$x = 357$$

Hence, another number is 357.

5. (i) $379 - 0 = 379$
 (ii) $4785 - 4785 = 0$
6. (i) $256 + 111 = 367$
 and $111 + 256 = 367$
 (ii) $910 + 4507 = 5417$
 and $4507 + 910 = 5417$
 (iii) $2001 + 1927 = 3928$
 and $1927 + 2001 = 3928$
7. (i) $226 - 73 = 153$
 and $226 - 153 = 73$
 (ii) $500 - 122 = 378$
 and $500 - 378 = 122$
 (iii) $5800 - 2222 = 3578$
 and $5800 - 3578 = 2222$
- G. 1. Shравan had rupees in banke = ₹ 4125
 He spent rupees on a video game = ₹ 1713
 He has rupees left = ₹ 4125

$$\begin{array}{r} \text{₹ } 4125 \\ - \text{₹ } 1713 \\ \hline \text{₹ } 2412 \end{array}$$
2. Leena collect seashells = 2,001
 After give some shells to amita she has shells = 995
 Number of shells give to Amita = 2001

$$\begin{array}{r} 2001 \\ - 995 \\ \hline 1006 \end{array}$$
3. Number of birds in a field = 3100
 Some flew away, now birds left in a field = 1000
 Number of birds flew away = 3100

$$\begin{array}{r} 3100 \\ - 1000 \\ \hline 2100 \end{array}$$
4. Number of ice cream sandwiches = 4350
 At the end of the day, number of ice cream sandwiches = 1080
 Number of sandwiches sell = 4350

$$\begin{array}{r} 4350 \\ - 1080 \\ \hline 3270 \end{array}$$
- H. 1.
$$\begin{array}{r} 5073 \\ - 2447 \\ \hline 2626 \end{array}$$
 2.
$$\begin{array}{r} 2584 \\ - 1787 \\ \hline 0797 \end{array}$$
3.
$$\begin{array}{r} 8298 \\ - 7136 \\ \hline 1162 \end{array}$$
 4.
$$\begin{array}{r} 6180 \\ - 5836 \\ \hline 0344 \end{array}$$
- I. These equations are missing with the plus and minus signs. Write the correct sign in each.
 1. + 2. - 3. + 4. -
 5. +- 6. -+ 7. -+ 8. ++
- J. Now, let's practice :
 1. 19 2. 07 3. 090
 4. 08 5. 57 6. 08

- K. 1. Lokesh has rupees = ₹ 10 + ₹ 10 = ₹ 20
 Leela has rupees = ₹ 5
 They have total money = ₹ 20 + ₹ 5 = ₹ 25
 gift cost = ₹ 22
 Change will them receive = ₹ 25

$$\begin{array}{r} \text{₹ } 25 \\ - \text{₹ } 22 \\ \hline \text{₹ } 03 \end{array}$$
2. Each goal worth = 2 points
 According to question
 Varun took goals = 3
 Karan took goals = 4
 Total goals = 3 + 4
 = 7 goals.
3. Number of pages = 232
 Meena read pages over the weekend = 42
 Meena read pages on monday night = 30
 Total number of pages meena reads = 42 + 30
 = 72
 Number of pages meena has left to read = 232

$$\begin{array}{r} 232 \\ - 72 \\ \hline 160 \end{array}$$
4. Number of erasers in one box = 24
 Number of erasers in other box = 36
 Number of erasers to give his friend = 18
 Number of erasers suraj has left
 = 24 + 36 - 18 = 42 erasers
- L. 1. Total number of mice = 150
 Number of mice help to make dress = 35
 Number of mice help to make shoes = 45
 Total number of mice helped her = 35 + 45
 = 80
 Remain mices = 150

$$\begin{array}{r} 150 \\ - 80 \\ \hline 70 \end{array}$$
 mice.
2. Robinhood has wooden planks = 700
 Number of wooden planks to use make his friend house = 560
 Number of unused wooden planks = 700

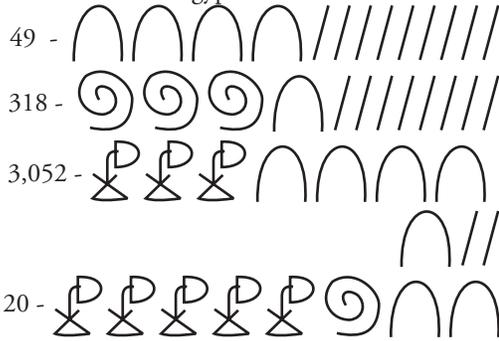
$$\begin{array}{r} 700 \\ - 560 \\ \hline 140 \end{array}$$

 The wooden planks less than 200 left with him.
- M. Answer the following :
- | | |
|----------------|------------------|
| 1. In Out | 2. In Out |
| 15 13 | 9 4 |
| | 13 |
| | 20 |
| 3. In Out | 4. In Out |
| 27 11 | 30, 54 3, 7 |

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5. In Out
 14, 20
 Rule : less 1
6. 32, 80
7. Not correct, as 2 goals make 72 points.

N. Write the ancient Egyptian numbers.



- O. 1. Multiplication 45 students
 2. Division 8 bracelets
 3. Addition 60 muffins
- P. 1. 8, 13, 6 2. 10, 3, 8
 7, 9, 11 5, 7, 9
 12, 5, 10 6, 11, 4

Creative Approach

- A. Multiple Choice Questions
 1. (a) 26 2. (b) 600 3. (c) 6052
 4. (d) 700 5. (c) 500
- C. 1. Total ants in a colony = 675
 Number of ants leave = 241
 Number of ants are there now = $\begin{array}{r} 675 \\ - 241 \\ \hline 434 \end{array}$
2. Captain's electric car can travel = 414 miles
 Tiger's Car Can travel = 312 miles
 Difference = 414
 $\begin{array}{r} - 312 \\ \hline 102 \end{array}$ miles
- D. Do yourself

**CHAPTER-4
 Multiplication**

- A. Multiply the numbers by the centre number.
 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24
 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36
 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48

- 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60
 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72
 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84
 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96
 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, 108
 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120
 22, 33, 44, 55, 66, 77, 88, 99, 110, 121, 132
 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144

B. Let us practice what we learned :

1. (i) 12 (ii) 832
 (iii) 14 (iv) 310
2. (i) 5 (ii) 15
 (iii) 5×3 (iv) 315×16
3. (i) 416 (ii) 799
 (iii) 1 (iv) 618
 (v) 0 (vi) 0
 (vii) 0 (viii) 0
4. (i) 21 (ii) 4
 (iii) $30 + 6$ (iv) $70 + 9$
 (v) $100 + 5$ (vi) $10 \times 100 - 1$
5. (i) 0 (ii) the number itself

- C. N. 204 C. 51
 A. 184 H. 310
 I. 318 B. 504
 S. 112 K. 96
 R. 108 B. 117

IN BRANCH BANK

- D. Multiply and colour an apple if you find its product.
 (i) 1218, 822, 310, 636 (ii) 770, 282, 390, 906
 (iii) 228, 524, 999, 460

E. Answer the following :

1. $\begin{array}{r} 136 \\ + 6120 \\ \hline 6256 \end{array}$ 2. $\begin{array}{r} 213 \\ + 2130 \\ \hline 2343 \end{array}$
3. $\begin{array}{r} 1294 \\ + 8820 \\ \hline 9114 \end{array}$ 4. $\begin{array}{r} 100 \\ + 500 \\ \hline 600 \end{array}$
5. $\begin{array}{r} 308 \\ + 1760 \\ \hline 2068 \end{array}$ 6. $\begin{array}{r} 360 \\ + 1350 \\ \hline 1710 \end{array}$
7. $\begin{array}{r} 00 \\ + 6400 \\ \hline 6400 \end{array}$ 8. $\begin{array}{r} 237 \\ + 1580 \\ \hline 1817 \end{array}$
9. $\begin{array}{r} 522 \\ + 6090 \\ \hline 6612 \end{array}$ 10. $\begin{array}{r} 240 \\ + 300 \\ \hline 540 \end{array}$

F. Solve the problems and then match the letter of the problem to the correct number at the bottom of the page to learn the punch line.

- | | |
|--------|--------|
| U. 150 | E. 180 |
| A. 280 | L. 160 |
| S. 300 | M. 120 |
| C. 305 | F. 100 |

AMUSCLE

G. Find the product.

- | | |
|----------|----------|
| 1. 700 | 2. 2000 |
| 3. 2000 | 4. 600 |
| 5. 2400 | 6. 4900 |
| 7. 4500 | 8. 1600 |
| 9. 2800 | 10. 2100 |
| 11. 1600 | 12. 2800 |
| 13. 7200 | 14. 1800 |
| 15. 2500 | 16. 7200 |
| 17. 3000 | 18. 1400 |

H. Now answer the following in the same way as shown above :

- | | |
|--|--|
| 1. $\begin{array}{r} 112 \\ + 2240 \\ \hline 2352 \end{array}$ | 2. $\begin{array}{r} 000 \\ + 9000 \\ \hline 9000 \end{array}$ |
|--|--|

3.
$$\begin{array}{r} 884 \\ + 13260 \\ \hline 14144 \end{array}$$

- I. 1. Gaurav bought pencils = 6
Karan bought pencils = 6
Total number of pencil bought together
= 6 + 6 = 12 pencil
2. Number of pencils monica purchased = 8
each pencil cost = ₹ 6
Total cost of pencils = 8 × ₹ 6
= ₹ 48
3. Number of pencils sandhya bought = 9
each pencil cost = ₹ 8
Total money spend for pencil = 9 × ₹ 8
= ₹ 72
4. Number of pencils aniya bought = 4
each pencil cost = ₹ 7
Total money spend for pencil bought = 4 × ₹ 7
= ₹ 28
5. Number of pencils aniya returned = 2
each pencil cost = ₹ 7
Money she get back = 2 × ₹ 7
= ₹ 14
6. Number of pencil box bought by Ms. Reena
= 5

Number of pencil each box hold = 8
Total Number of pencil buy = 8 × 5
= 40 pencils

Creative Approach

A. Multiple Choice Questions :

- | | |
|-----------------|--------------|
| 1. (c) 1200 | 2. (b) 100 |
| 3. (c) Rs. 1200 | 4. (c) 57500 |
| 5. (b) 4200 | |

B. Fun Zone

- (i) $3 \times 3 = 9$ (ii) $4 \times 3 = 12$

C. 1. Number of rice bags a truck car carry = 78

Number of rice bags can be carried by

$$\begin{array}{r} 93 \text{ such trucks} = 93 \\ \phantom{93 \text{ such trucks}} \times 78 \\ \phantom{93 \text{ such trucks}} 744 \\ \phantom{93 \text{ such trucks}} + 6510 \\ \hline 7254 \end{array}$$

2. Roham earlier salary = Rs. 3280

Roham's salary increase two times,

then present salary = 3280

$$\begin{array}{r} \times 2 \\ \hline \text{Rs. } 6560 \end{array}$$

□□

CHAPTER-5

Division

A. Divide the food between the kids. Encircle the correct equation.

1. 2 2. 3 3. 3

B. Now you try! Write a division sentence to represent each drawing.

1. $12 \div 4 = 3$ 2. $14 \div 2 = 7$

C. Draw an array for each division problem and record the quotient on the answer line.

- | | | |
|------|------|-------|
| 1. 5 | 2. 8 | 3. 2 |
| 4. 3 | 5. 3 | 6. 11 |

D. What division problems do the arrays represent ?

- | | |
|--------------------|--------------------|
| 1. $21 \div 3 = 7$ | 2. $18 \div 6 = 3$ |
| 3. $14 \div 2 = 7$ | |

E. Use Repeated Subtraction as seen in the example above to solve the following division problems.

- | | |
|------------------|-----------------|
| 1. $18 - 2 = 16$ | 2. $12 - 3 = 9$ |
| $16 - 2 = 14$ | $9 - 3 = 6$ |
| $14 - 2 = 12$ | $6 - 3 = 3$ |
| $12 - 2 = 10$ | $3 - 3 = 0$ |
| $10 - 2 = 8$ | $12 \div 3 = 4$ |

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$$8 - 2 = 6$$

$$6 - 2 = 4$$

$$4 - 2 = 2$$

$$2 - 2 = 0$$

$$18 \div 2 = 9$$

3. $16 - 4 = 12$

$$12 - 4 = 8$$

$$8 - 4 = 4$$

$$4 - 4 = 0$$

$$16 \div 4 = 4$$

5. $8 - 4 = 4$

$$4 - 4 = 0$$

$$8 \div 4 = 2$$

4. $21 - 7 = 14$

$$14 - 7 = 7$$

$$7 - 7 = 0$$

$$21 \div 7 = 3$$

6. $15 - 5 = 10$

$$10 - 5 = 5$$

$$5 - 5 = 0$$

$$15 \div 5 = 3$$

F. Use multiplication and division to fill in the fact family living in each house.

2. $7 \times 4 = 28$

$$4 \times 7 = 28$$

$$28 \div 7 = 4$$

$$28 \div 4 = 7$$

4. $9 \times 7 = 63$

$$7 \times 9 = 63$$

$$63 \div 9 = 7$$

$$63 \div 7 = 9$$

6. $9 \times 5 = 45$

$$5 \times 9 = 45$$

$$45 \div 9 = 5$$

$$45 \div 5 = 9$$

3. $6 \times 5 = 30$

$$5 \times 6 = 30$$

$$30 \div 6 = 5$$

$$30 \div 5 = 6$$

5. $6 \times 3 = 18$

$$3 \times 6 = 18$$

$$18 \div 3 = 6$$

$$18 \div 6 = 3$$

G. Use multiplication and division to fill in the missing number of each factor family.

2. 132

3. 4

4. 30

5. 12

6. 5

H. Determine the best answer for the following questions.

1. 7

$$9 \times 7 = 63$$

2. 10

$$5 \times 10 = 50$$

3. 9

$$4 \times 9 = 36$$

4. 8

$$8 \times 8 = 64$$

5. 3

$$4 \times 3 = 12$$

6. 8

$$2 \times 8 = 16$$

I. Now, follow along and try some on your own.

$$\begin{array}{r} 1. \quad 8 \\ 3 \overline{)24} \\ \underline{-24} \\ 0 \end{array}$$

$$\begin{array}{r} 2. \quad 9 \\ 7 \overline{)63} \\ \underline{-63} \\ 0 \end{array}$$

$$\begin{array}{r} 3. \quad 11 \\ 9 \overline{)99} \\ \underline{-99} \\ 0 \end{array}$$

$$\begin{array}{r} 4. \quad 17 \\ 5 \overline{)85} \\ \underline{-5} \\ 35 \\ \underline{-35} \\ 0 \end{array}$$

$$\begin{array}{r} 5. \quad 6 \\ 6 \overline{)36} \\ \underline{-36} \\ 0 \end{array}$$

$$\begin{array}{r} 6. \quad 27 \\ 2 \overline{)54} \\ \underline{-4} \\ 14 \\ \underline{-14} \\ 0 \end{array}$$

$$\begin{array}{r} 7. \quad 7 \\ 4 \overline{)28} \\ \underline{-28} \\ 0 \end{array}$$

$$\begin{array}{r} 8. \quad 5 \\ 8 \overline{)40} \\ \underline{-40} \\ 0 \end{array}$$

$$\begin{array}{r} 9. \quad 12 \\ 5 \overline{)60} \\ \underline{-60} \\ 0 \end{array}$$

$$\begin{array}{r} 10. \quad 31 \\ 3 \overline{)93} \\ \underline{-9} \\ 03 \\ \underline{-03} \\ 0 \end{array}$$

J. 1. 37, 1

2. 17, 0

3. 13, 3

4. 15, 3

K. Do yourself

L. Use the long division way and show your work!

1. $32 \div 4 = 8$

2. $72 \div 8 = 9$

3. $64 \div 4 = 16$

4. $35 \div 7 = 5$

M. 1. Number of friends = 4

Cake cut into pices = 16

Number of pieces will we each get =

$$\begin{array}{r} 4 \\ 4 \overline{)16} \\ \underline{-16} \\ 0 \end{array}$$

2. Number of children in class = 124

Number of group = 4

Number of children in each group =

$$\begin{array}{r} 31 \\ 4 \overline{)124} \\ \underline{-12} \\ 04 \\ \underline{-04} \\ 0 \end{array}$$

3. Total number of penguins = $100 + 35 = 135$
 Number of pools = 3
 Number of penguins go in each pool

$$\begin{array}{r} 45 \\ 3 \overline{) 135} \\ \underline{-12} \\ 15 \\ \underline{-15} \\ 0 \end{array}$$

4. Total number of Indians = 232
 Number of round house = 8
 Number of Indians live in each house =

$$\begin{array}{r} 29 \\ 8 \overline{) 232} \\ \underline{-16} \\ 72 \\ \underline{-72} \\ 0 \end{array}$$

5. Number of potatoes are left = 148
 Number of children in the queue = 4
 Number of potatoes they will each get =

$$\begin{array}{r} 37 \\ 4 \overline{) 148} \\ \underline{-12} \\ 28 \\ \underline{-28} \\ 0 \end{array}$$

6. Total number of paint brushes = 144
 Number of pots = 3
 Number of paint brushes should in each pot =

$$\begin{array}{r} 48 \\ 3 \overline{) 144} \\ \underline{-12} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

N. Prove your division answers by writing and grouping the pictures.

1. 4 2. 2 3. 3 4. 2

- O. (ii) Write each division statement into two different ways.

3) 12 (12 ÷ 3
10) 90 (90 ÷ 10
8) 64 (64 ÷ 8

- P. Complete each equation with a multiplication or division sign.

- | | | |
|-------|-------|-------|
| 1. × | 2. × | 3. ÷ |
| 4. ÷ | 5. × | 6. ÷ |
| 7. ÷ | 8. × | 9. × |
| 10. × | 11. ÷ | 12. ÷ |
| 13. ÷ | 14. × | 15. × |

- Q. Draw a line from the word or phrase on the left side of the page to the phrase that best describes that word or phrase on the right side of the page.

- | | | |
|------|------|------|
| 1. A | 2. F | 3. A |
| 4. E | 5. C | 6. D |

Creative Approach

- A. Multiple Choice Questions :

- | | |
|-----------------|------------------------|
| 1. (a) zero | 2. (b) subtraction |
| 3. (b) 1 | 4. (a) $36 \div 9 = 4$ |
| 5. (b) dividend | |

- B. Fun Zone

- | | |
|------|------|
| 1. 9 | 2. 6 |
| 1 | 1 |

- C. 1. Vineeta has meters of ribbon = 102
 Ribbon distribute in 3 girls
 Length of ribbon with each girl =

$$\begin{array}{r} 34 \\ 3 \overline{) 102} \\ \underline{-9} \\ 12 \\ \underline{-12} \\ 0 \end{array}$$

2. Total number of pages = 864
 Number of books = 6
 Number of pages in each book =

$$\begin{array}{r} 144 \\ 6 \overline{) 864} \\ \underline{-6} \\ 26 \\ \underline{-24} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

D. Activity Zone

1. Squirrel and rabbit
2. 7 jumps
3. 6 steps
4. Kangaroo
5. 3 jumps

CHAPTER-6

Vedic Mathematics

A. Ekadhiken (one more than previous one) :

1. $= 3 + 1 = 4$
2. $= 2 + 1 = 3$
3. $= 8 + 1 = 9$
4. $= 6 + 1 = 7$
5. $= 5 + 1 = 6$
6. $= 20 + 1 = 21$
7. $= 34 + 10 = 44$
8. $= 69 + 10 = 79$
9. $= 83 + 10 = 93$
10. $= 52 + 10 = 62$
11. $= 66 + 10 = 76$
12. $= 47 + 10 = 57$
13. $= 89 + 10 = 99$
14. $= 93 + 10 = 103$
15. $= 99 + 10 = 109$
16. $= 71 + 10 = 81$

B. Ekanyunen (one less than previous one) :

1. $= 4 - 1 = 3$
2. $= 19 - 1 = 18$
3. $= 6 - 1 = 5$
4. $= 8 - 1 = 7$
5. $= 10 - 1 = 9$
6. $= 18 - 1 = 17$
7. $= 13 - 10 = 3$
8. $= 34 - 10 = 24$
9. $= 61 - 10 = 51$
10. $= 97 + 10 = 87$
11. $= 75 - 10 = 65$
12. $= 87 - 10 = 77$
13. $= 79 - 10 = 69$
14. $= 63 - 10 = 53$
15. $= 59 - 10 = 49$
16. $= 90 - 10 = 80$

- C. 1. $\begin{array}{r} 53 \\ - 10 \\ \hline 43 \end{array}$
- $\begin{array}{r} 31 \\ + 1 \\ \hline 32 \end{array}$
- $\begin{array}{r} 53 \\ - 31 \\ \hline 22 \end{array}$
- $\begin{array}{r} 43 \\ - 32 \\ \hline 11 \end{array}$
2. $\begin{array}{r} 41 \\ + 1 \\ \hline 42 \end{array}$
- $\begin{array}{r} 32 \\ - 10 \\ \hline 22 \end{array}$
- $\begin{array}{r} 41 \\ - 32 \\ \hline 9 \end{array}$
- $\begin{array}{r} 42 \\ - 22 \\ \hline 20 \end{array}$
3. $\begin{array}{r} 43 \\ - 10 \\ \hline 33 \end{array}$
- $\begin{array}{r} 42 \\ + 10 \\ \hline 52 \end{array}$
- $\begin{array}{r} 43 \\ + 42 \\ \hline 85 \end{array}$
4. $\begin{array}{r} 52 \\ + 1 \\ \hline 53 \end{array}$
- $\begin{array}{r} 51 \\ + 10 \\ \hline 61 \end{array}$
- $\begin{array}{r} 52 \\ + 51 \\ \hline 103 \end{array}$
- $\begin{array}{r} 53 \\ + 61 \\ \hline 114 \end{array}$

□□

CHAPTER-7

Measurement

B. Do yourself

C. Convert them into the metric units :

1. 10
2. 20
3. 300
4. 400
5. 1000
6. 2000

D. Use greater than (>), less than (<) or equals (=) to compare the quantities.

1. >
2. =
3. >
4. <
5. <
6. <
7. =
8. <

E. 1. Length of the pen = 9 cm

Length of the pencil = 7 cm

Total length of the pen and pencil

$$= 9 \text{ cm} + 7 \text{ cm}$$

$$= 16 \text{ cm.}$$

2. Length of the book = 25 cm

Length of the car = 19 cm

Total length of the car and toy

$$= 25 \text{ cm} + 19 \text{ cm}$$

$$= 44 \text{ cm.}$$

3. Length of the CD box = 18 cm.

Length of the rubber = 3 cm

Total length of the CD box and rubber =

$$= 18 \text{ cm} + 3 \text{ cm.}$$

$$= 21 \text{ cm.}$$

4. Length of the DVD box = 17 cm.

Length of the lego brick = 4 cm.

Total length of the DVD box and lego brick =

$$= 17 \text{ cm} + 4 \text{ cm}$$

$$= 21 \text{ cm.}$$

5. Length of the glue stick = 20 cm

Length of the stapler = 5 cm.

Total length of the glue stick and stapler =

$$= 20 \text{ cm} + 5 \text{ cm}$$

$$= 25 \text{ cm.}$$

6. Length of the white board = 22 cm.

Length of the hole punch = 4 cm.

Total length of the hole punch and whiteboard

=

$$= 22 \text{ cm} + 4 \text{ cm}$$

$$= 26 \text{ cm.}$$

F. 1. Height of Mary = 1 m 15 cm

Height of Larry = 1 m 30 cm

□□

2. Number of toffees manisha has = 12
 Number of yellow toffees = 5
 Number of green toffees = 2
 Number of orange toffees = 1
 Number of brown toffees = 4
 Fraction of the toffies are brown = $\frac{4}{12}$
3. Number of pieces of apple = 8
 Number of pieces she ate = 5
 Number of pieces she put in the fridge = 3
 Fraction of she eat = $\frac{5}{8}$
4. Number of chocolate bars Ashima had = 6
 Number of chocolate bar give to Asif = 1
 Number of chocolate bou give to Sahil = 1
 Fraction of the chocolate bars did she give away
 $= \frac{2}{6}$
5. Number of gloves in the lost and found box = 7
 Number of blue gloves = 2
 Number of green gloves = 3
 Number of black gloves = 1
 Number of brown gloves = 1
 Fraction of the gloves are black = $\frac{1}{7}$

Creative Approach

- A. Multiple Choice Questions :**
 1. (a) $\frac{3}{7}$ 2. (a)
 3. (d) $\frac{9}{12}$ 4. (c) $\frac{3}{4}$
 5. (a) $\frac{1}{4}$
- B. Fun Zone**
 (a) $\frac{3}{9}$ (b) $\frac{6}{9}$
 (c) $\frac{7}{9}$ (d) $\frac{2}{9}$
 (e) $\frac{4}{9}$
- C.** 1. Distance between Rahul's school and his home = 6 miles
 Distance between drop point and his home = 1 miles
 Distance covers by school bus = 5 miles
 Fraction of distance did Rahul cover by school bus = $\frac{5}{6}$
2. Sophia has money = Rs 100
 Spent money for buying books = Rs. 50
 Money she has left after buying books = Rs 100 – Rs 50 = Rs. 50.

- D. Activity Zone**
 (a) $\frac{4}{9}$ (b) $\frac{2}{9}$ (c) $\frac{3}{9}$
 (d) $\frac{5}{9}$ (e) $\frac{7}{9}$ (f) $\frac{6}{9}$



**CHAPTER-9
 Geometry**

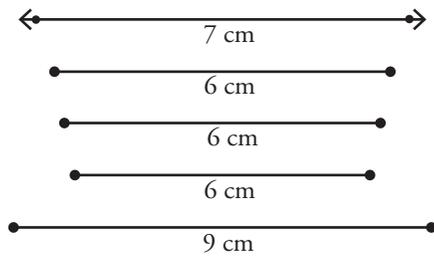
- A. Identify each pair of lines as parallel, perpendicular or intersecting.**
 1. (b) parallel lines
 2. (c) perpendicular lines
 3. (a) intersecting lines
 4. (c) perpendicular lines
 5. (a) intersecting lines
 6. (b) parallel lines
 7. (a) intersecting lines
 8. (b) parallel lines
 9. (c) perpendicular lines
- B. Using a standard rules, measure each line segment to the nearest cm or inch.**
 1. 1 2. 3 3. 0
 4. 1 5. 1.1 6. 0.5
- C. Write the name of the angles.**
 1. Acute 2. right 3. Obtuse
 4. Right 5. Obtuse 6. Obtuse
- D. Draw a line to match the item with the shape.**
 1. (b) 2. (c) 3. (d)
 4. (e) 5. (a)
- E. Answer the following questions.**
 1. Square 2. Circle 3. 6
- F. Encircle the one that does not belong to this group.**
 (i) it is 2D shape (ii) 0
 (iii) Cube (iv) Circle
 (v) a cone (vi) Sphere
- G. Match each term with the picture that represents it by drawing a line to connect the term to the picture.**
 1. (e) 2. (a) 3. (d)
 4. (b) 5. (c) 6. (f)
 7. (j) 8. (g) 9. (i)
 10. (h)

Creative Approach

- A. Multiple Choice Questions.**
 1. (b) Acute angle 2. (c) Obtuse angle
 3. (d) parallel
- B. Fun Zone**
 (a) 6

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C.



D. Activity Zone

- (a) 6
(b) 2.

□□

CHAPTER-10
Time

A. Do yourself

B. Do yourself

C. Circle the correct time shown for each clock.

1. 12 : 15 2. 2 : 15
3. 2 : 45 4. 7 : 15
5. 5 : 45 6. 11 : 45

D. Write the time below for each clock.

1. 02 : 05 2. 04 : 35
3. 12 : 15 4. 11 : 15
5. 10 : 55 6. 03 : 50

E. Write down for each, how many minutes have passed by :

1. 10 minute 2. 100 minute
3. 130 minute 4. 65 minute
5. 75 minute 6. 185 minute

F. Answer each question below. Use a calendar if you don't know the answer.

1. 12 months 2. 30 days
3. Do yourself 4. October
5. 27 January 6. 365 days
7. 5 8. 10
9. 10 10. Sunday

G. Answer the following questions about dates, using the calendar shown when needed.

1. Saturday 2. Wednesday
3. 5 4. 17 June
5. 26 June 6. 12 June
7. 14 June

H. Answer the following questions about dates, using the clock shown when needed.

1. 24 hours 2. 168 hours
3. 07 : 00 AM 4. 08 : 15
5. 45 minutes 6. 5h 50 min.

Creative Approach

A. Multiple Choice Questions.

1. (a) 180 2. (a) 366
3. (d) 5 : 45 4. (c) 2 hours
5. (b) 8 : 50

B. Fun Zone

- (b) 12 : 29

C. Let us Explore

1. 3 O'clock 2. 29 months

D. Activity Zone

1. Write the time you think it will take to do each of the following activities. You can use the following help box.

- (a) minutes (b) second
(c) days (d) minutes
(e) hours (f) days
(g) days (h) hours
(i) year (j) minutes

□□

CHAPTER-11
Money

A. How much money do they have ?

- ₹ 520.50
₹ 202.50
₹ 554

B. Write the following in figures.

1. ₹ 7.50 2. ₹ 8
3. ₹ 15.60 4. ₹ 20.08
5. ₹ 2.90

C. Convert the following to paise.

1. 900 paise 2. 705 paise
3. 9995 paise 4. 7060 paise
5. 1250 paise 6. 8950 paise

D. Complete the table.

		two rupees twenty paise
7550 p	₹ 75.50	Seventh five rupees fifty paise
1010 p	₹ 10.10	
615 p		Six rupees Fifteen paise
	₹ 13.25	Thirteen rupees twenty five paise

E. Convert the following to rupees.

1. ₹ 6.75 2. ₹ 9.00
3. ₹ 10.00 4. ₹ 16.05
5. ₹ 89.95 6. ₹ 20.10

F. Rewrite each list of numbers in order, from the least to the greatest.

1. ₹ 1.25 ₹ 2.50 ₹ 12 ₹ 25 ₹ 35
2. ₹ 10.00 ₹ 9.75 ₹ 9.57 ₹ 1.00 ₹ 0.99

G. Compare money and write <, >, or = in each circle.

1. < 2. >
3. < 4. >
5. < 6. <
7. < 8. <

H. Read and answer the questions.

1. Kareena
2. Riya
3. Tuesday

- I. 1. Chocolate box cost = ₹ 25
Note book cost = ₹ 15
Money needed to pay for both = ₹ 25
$$\begin{array}{r} \text{₹ } 15 \\ \text{₹ } 40 \\ \hline \end{array}$$

2. A cricket bat cost = ₹ 251.35
A badminton racket cost = ₹ 197.50
Total cost of both = ₹ 251.35
$$\begin{array}{r} \text{₹ } 197.50 \\ \text{₹ } 448.85 \\ \hline \end{array}$$

3. Cost of a story book = ₹ 42.00
Cost of a pen = ₹ 42 + ₹ 10
= ₹ 52
Total cost of both items = ₹ 42.00
$$\begin{array}{r} + \text{₹ } 52.00 \\ \hline \text{₹ } 94.00 \end{array}$$

- J. 1. Total money have = ₹ 50
Cost of a pencil box = ₹ 25
Cost of a note book = ₹ 15
Total cost of both items = ₹ 25 + ₹ 15
= ₹ 40
Money is left after buying both items
= ₹ 50 - ₹ 40 = ₹ 10

2. Price of a bag = ₹ 55
Price of a purse = ₹ 75
Total money is pay for both = ₹ 55
$$\begin{array}{r} + \text{₹ } 75 \\ \hline \text{₹ } 130 \end{array}$$

Money is left after buying both items
= ₹ 200 - ₹ 130 = ₹ 70

3. Soniya had money = ₹ 100
Cost of a book = ₹ 65
Money left after paying for the book = ₹ 100
$$\begin{array}{r} \text{₹ } 100 \\ - \text{₹ } 65 \\ \hline \text{₹ } 35 \end{array}$$

- K. 1. ₹ 80.00
₹ 20.00
2. Harish get pocket money daily = ₹ 10.50
Money he get in 9 days = 10.50
$$\begin{array}{r} \times 9 \\ \hline \text{₹ } 94.50 \end{array}$$

3. Cost off i-pod = ₹ 1000
Cost of 9 such i-pod = ₹ 1000
$$\begin{array}{r} \times 9 \\ \hline \text{₹ } 9000 \end{array}$$

4. Cost of a cheese packet = ₹ 75.00
Cost of 5 such packet = 75.00
$$\begin{array}{r} \times 5 \\ \hline \text{₹ } 375.00 \end{array}$$

- L. 1. Cost of 5 chocolates = ₹ 56.25
Cost of one chocolate = ₹ 56.25 ÷ 5
= ₹ 11.25
2. Cost of 6 train tickets = ₹ 79.20
Cost of one ticket = ₹ 79.20 ÷ 6 = ₹ 13.20
3. Priya gets rupees per week = ₹ 143.50
Rupees she get daily = ₹ 143.50 ÷ 7 = ₹ 20.50

M.

- I. 1. ₹ 9.75 2. ₹ 217.75
$$\begin{array}{r} + \text{₹ } 6.10 \\ \hline \text{₹ } 15.85 \end{array}$$

$$\begin{array}{r} + \text{₹ } 186.65 \\ \hline \text{₹ } 404.40 \end{array}$$

3. ₹ 27.70 4. ₹ 104.10
$$\begin{array}{r} \text{₹ } 32.40 \\ + \text{₹ } 44.80 \\ \hline \text{₹ } 104.90 \end{array}$$

$$\begin{array}{r} \text{₹ } 218.20 \\ + \text{₹ } 426.60 \\ \hline \text{₹ } 748.90 \end{array}$$

- II. 1. ₹ 72.85 2. ₹ 500.00
$$\begin{array}{r} - \text{₹ } 38.90 \\ \hline \text{₹ } 33.95 \end{array}$$

$$\begin{array}{r} - \text{₹ } 386.55 \\ \hline \text{₹ } 113.45 \end{array}$$

3. ₹ 410.00 4. ₹ 70.00
$$\begin{array}{r} - \text{₹ } 101.75 \\ \hline \text{₹ } 308.25 \end{array}$$

$$\begin{array}{r} - \text{₹ } 47.50 \\ \hline \text{₹ } 22.50 \end{array}$$

- III. 1. ₹ 8.05 2. ₹ 15.65
$$\begin{array}{r} \times 7 \\ \hline \text{₹ } 56.35 \end{array}$$

$$\begin{array}{r} \times 6 \\ \hline \text{₹ } 93.90 \end{array}$$

3. 80.00 4. ₹ 99.77
$$\begin{array}{r} \times 8 \\ \hline \text{₹ } 640.00 \end{array}$$

$$\begin{array}{r} \times 2 \\ \hline \text{₹ } 199.54 \end{array}$$

5. 18.05 6. ₹ 20.05
$$\begin{array}{r} \times 5 \\ \hline \text{₹ } 90.25 \end{array}$$

$$\begin{array}{r} \times 9 \\ \hline \text{₹ } 180.45 \end{array}$$

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- IV. 1. ₹ 63 ÷ 7 = ₹ 9 2. ₹ 96 ÷ 8 = ₹ 12
 3. ₹ 81 ÷ 9 = ₹ 9 4. ₹ 135 ÷ 5 = ₹ 27
 5. ₹ 114 ÷ 3 = ₹ 38 6. ₹ 226 ÷ 2 = ₹ 113
- N. 1. Yes 2. No
 3. No 4. No
 5. Yes 6. 2
 7. 3 8. ₹ Yes

Creative Approach

A. Multiple Choice Questions.

1. (a) ₹ 20 2. (b) 4
 3. (c) ₹ 21.25 4. (b) ₹ 9
 5. (c) ₹ 73.50

B. Fun Zone

1. ₹ 15.50 × 3 = ₹ 46.50
 2. ₹ 45 ÷ 3 = ₹ 15
 3. ₹ 77.70
 4. ₹ 5.10
 5. ₹ 31.25 - ₹ 20.00 = ₹ 11.25

C. 1. Cost of mangoes = ₹ 78.80

Cost of grapes = ₹ 67.80
 Cost of melon = ₹ 37.80
 Total spend for all fruits = ₹ 78.80
 ₹ 67.80
 + ₹ 37.80
 ₹ 184.40

2. Reena had total money = ₹ 150
 Medicines worth = ₹ 39.65
 Stationery worth = ₹ 29.90
 grocery worth = ₹ 34.85
 Money is left after paying for all the items
 = ₹ 150 - (₹ 39.65 + ₹ 29.90 + ₹ 34.85)
 = ₹ 45.60

CHAPTER-12

Symmetry And Pattern

A. Do yourself

- B. 1.** (a) No (b) No
 (c) Yes (d) No
 (e) Yes (f) Yes

2. Do yourself
 3. Do yourself

E. Complete the following patterns.

1. 15, 18, 21 2. 20, 22, 24
 3. 74, 83, 92 4. 320, 310, 300

5. Do yourself 6. Do yourself
 7. Do yourself 8. Do yourself
 9. Do yourself 10. Do yourself

F. Amrita and Paritosh are writing secret messages.

Can you tell what they are trying to say ?

WHERE ARE YOU
 IN THE CANTEEN
 THIS BOOK IS FUN

Creative Approach

A. Multiple Choice Questions.

1. (a) A and B 2. (a) VYB
 3. (d) 4. (c) 22
 5. (c) 38, 50

C. Let us Explore :

- (a) 11, 13, 15 (b) 12, 14, 16
 (c) 55, 66, 77 (d) 64, 74, 84

D. Activity Zone

1. 6 2. 6 3. 2, 4



CHAPTER-13

Area and Perimeter

A. Match the shapes that have the same area :

1. (ii) 2. (i) 3. (vi)
 4. (v) 5. (iv) 6. (iii)

B. What is the area of each shape ?

1. 12 2. 8 3. 7
 4. 9 5. 14 6. 6

C.

- I. 1.** given, Length = 4 cm
 Breadth = 3 cm
 Area of Rectangles = Length × Breadth
 = 4 cm × 3 cm
 = 12 sq. cm
- 2.** Length = 11 cm
 Breadth = 4 cm
 Area of Rectangle = Length × Breadth
 = 11 cm × 4 cm
 = 44 sq. cm
- 3.** Length = 12 cm
 Breadth = 5 cm
 Area of Rectangle = Length × Breadth
 = 12 cm × 5 cm
 = 60 sq. cm
- 4.** Length = 12 cm
 Breadth = 3 cm
 Area of Rectangle = Length × Breadth
 = 12 cm × 3 cm
 = 36 sq. cm

5. Length = 18 cm
 Breadth = 15 cm
 Area of Rectangle = $18 \text{ cm} \times 15 \text{ cm}$
 = 270 sq. cm

6. Length = 8 cm
 Breadth = 8m
 Area of Rectangle = Length \times Breadth
 = $8 \text{ cm} \times 8 \text{ cm}$
 = 64 sq. cm

II. Manav field:

Length = 25
 Breadth = 16 m
 Area = Length \times Breadth
 = $25 \text{ m} \times 16 \text{ m}$
 = 400 sq.m

Mansi field :

Length = 50 m
 Breadth = 40 m
 Area = Length \times Breadth
 = $50 \text{ m} \times 40 \text{ m}$
 = 2000 sq. m

Hence, Mansi field is larger.

III. 1. Area = Length \times Breadth
 $\Rightarrow 16 \text{ sq. cm} = \text{Length} \times 2 \text{ cm}$
 $\Rightarrow \text{Length} = \frac{16}{2} = 8 \text{ cm}$

2. Area = Length \times Breadth
 $36 \text{ sq. cm} = \text{Length} \times 6 \text{ cm}$
 $\text{Length} = \frac{36}{6} = 6 \text{ cm}$

3. Length of a rectangle = 24 m
 Breadth of a rectangle = 10 m
 Area = Length \times Breadth
 = $24 \text{ m} \times 10 \text{ m}$
 = 240 sq.m

V. Area of a rectangle = 18 sq. units
 One side of a rectangle = 3 units
 Area = Length \times Breadth
 $18 \text{ sq. units} = \text{Length} \times 3 \text{ units}$
 $\text{Length} = \frac{18}{3} = 6 \text{ units}$

D. 1. perimeter = $3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm}$
 = 9 cm
 2. Perimeter = $5 \text{ cm} + 4 \text{ cm} + 5 \text{ cm} + 4 \text{ cm}$
 = 18 cm

3. Perimeter = $2 \text{ cm} + 3 \text{ cm} + 2 \text{ cm} + 5 \text{ cm}$
 + $4 \text{ cm} = 16 \text{ cm}$

4. Perimeter = $6 \text{ cm} + 2 \text{ cm} + 5 \text{ cm} + 4 \text{ cm}$
 = 17 cm.

II. Perimeter of a rectangle carpet
 = $3 \text{ m} + 4 \text{ m} + 3 \text{ m} + 4 \text{ m} = 14 \text{ m}$

III. Picture fram is like rectangle shape
 Perimeter = $90 \text{ cm} + 200 \text{ cm} + 90 \text{ cm} + 200 \text{ cm}$
 = 580 cm

Creative Approach

A. Multiple Choice Questions.

1. (d) size 2. (c) length \times breath
 3. (a) 4×2 4. (d) perimeter
 5. (d) 40 cm

B. 1. (i) Perimeter = $5 \text{ cm} + 7 \text{ cm} + 5 \text{ cm} + 7 \text{ cm}$
 = 24 cm
 (ii) Perimeter = $13 \text{ cm} + 13 \text{ cm} + 16 \text{ cm}$
 = 42 cm
 (iii) Perimeter = $2.5 \text{ cm} + 3 \text{ cm} + 1 \text{ cm} + 3 \text{ cm}$
 + $2.5 \text{ cm} + 1 \text{ cm} + 2.5 \text{ cm}$
 + $3 \text{ cm} + 1 \text{ cm} + 3 \text{ cm}$
 + $2.5 \text{ cm} + 1 \text{ cm}$
 = 26 cm

Hence, most Perimeter (ii)

Least perimeter (i)

2. Area of this shape = $6 \times 2 + 4 \times 1 + 7 \times 3$
 = $12 + 4 + 21 = 40 \text{ sq. unit}$

C. 1. Length = 5 cm
 Breadth = 4 cm
 Area = Length \times Breadth
 = $5 \text{ cm} \times 4 \text{ cm} = 20 \text{ sq. cm}$
 2. perimeter (wire required)
 = $210 \text{ m} + 180 \text{ m} + 230 \text{ m}$
 = 620 m.

□□

CHAPTER-14
Data Handling

- A. 1. 40 inches 2. 30 inches
 3. 2 years 4. 65 inches
 5. 42.5 inches

B. Use the information from the list to complete the pictograph below and answer the questions.

- 8 6 14 8 4
 1. Vanilla, Strawberry 2. 12
 3. 8 4. 40

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- C. 1. Dora's plant = 2.75 inches
Steve's plant = 6.50 inches
Thoma's plant = 4.25 inches
2. 1.50 inches 3. 2.25 inches
4. 1.375 inches 5. No
- D. Use the chart to answer the questions :
1. Sunday 2. 89 minutes
3. Monday 4. 24 minutes
5. 79 6. 22
- E. The table shows the rides some children enjoyed.
1. Ferri's wheel
2. Space Rocket
3. Silver Streak
4. No, Sunday (150), Saturday (135)
- F. Do yourself
- G. Use a calculator and find answers of the following:
(i) 1. ₹ 15.85 2. ₹ 404.4
(ii) 1. ₹ 33.95 2. ₹ 113.45
(iii) 1. ₹ 56.35 2. ₹ 93.9
 3. ₹ 640.00
(iv) 1. ₹ 9 2. ₹ 12
 3. ₹ 9

Creative Approach

- A. Multiple Choice Questions :
1. (d) English 2. (c) 4
3. (d) 8 4. (b) Hindi
- B. Fun Zone
1. Monday 2. Wednesday
3. Tuesday 4. Monday
- C. Do yourself
- D. Activity Zone
1. Mugal Garden 2. Beach
3. 16



Test Yourself 1

1. (a) 8600 - Eight thousand six hundred
(b) 9820 - Nine thousand eight hundred twenty
(c) 6002 - Six thousand two
(d) 6962 - Six thousand nine hundred sixty two
2. (a) 5824 (a) 6999
3. (a) 640, 650, 660, 670, 680
(b) 9050, 9040, 9030, 9020, 9010
4. (a) 2 (b) 0 (c) 999999
5. place value of first 5 = 500
place value of second 5 = 5
difference = 500 - 5 = 495
6. 9002, 9007, 9012, 9017, 9022
7. 2066

8. 8610
9. (a) $626 < 802$
(b) $2606 < 2682$
(c) $1262 < 2 \times 1000$
(b) $9012 > 6012 - 1000$
10. 2626, 6228, 6229, 6812, 8962, 9622
11. 8860, 6666, 2626, 1066, 666, 62
12. (a) $8000 + 600 + 20 + 2$
(b) $9000 + 200 + 20 + 6$
13. (a) 6261 (b) 7050
14. (a) 7426 (b) 1700
(c) 112 (d) 1, 7, 5, 9
15. (a) CIX (b) LXI (c) XXIX
16. (a) 22 (b) 40 (c) 100
17. (a) 1356 (b) 1728
(c) 9632 (d) 2392
18. (a) 0 (b) 669
(c) 2860 (d) 266600
19. (a) 437

$$\begin{array}{r} 6 \overline{) 2626} \\ - 24 \\ \hline 022 \\ - 18 \\ \hline 46 \\ - 42 \\ \hline 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \overline{) 6966} \\ - 66 \\ \hline 36 \\ - 36 \\ \hline 06 \\ - 6 \\ \hline 0 \\ \hline \end{array}$$

(c) 742

$$\begin{array}{r} 9 \overline{) 6678} \\ - 63 \\ \hline 37 \\ - 36 \\ \hline 18 \\ - 18 \\ \hline 0 \\ \hline \end{array}$$

(d) 1333

$$\begin{array}{r} 2 \overline{) 2666} \\ - 26 \\ \hline 66 \\ - 66 \\ \hline 0 \\ \hline \end{array}$$

20. Do yourself
21. (a) $\frac{1}{4}$ (b) $\frac{4}{5}$ (c) $\frac{9}{11}$
22. (a) Two-third (b) Seven-eighths
(c) Five-ninths
23. (a) $>$ (b) $<$ (c) $<$ (d) $<$
24. (a) 08 : 55 (b) 01 : 00
(c) 07 : 15 (d) 10 : 10
25. Do yourself
26. Fill in the blanks :
(a) square (b) triangle, angles
(c) equal (d) equal

28. (a) five (b) Bats
(c) Football



Test Yourself 2

1. (a) 4000 (b) 100
(c) 60 (d) 2
2. Anita spoke to her grandmother in USA for 30 minute, lost = ₹ 240
Amit spoke to his grandfather in Canada for 31 minute, cost = ₹ 48
Total bill of both calls = ₹ 240
$$\begin{array}{r} + ₹ 48 \\ \hline ₹ 288 \end{array}$$
3. Number of ants in a colony = 675
Number of ants leave = 241
Number of ants are there now = 675
$$\begin{array}{r} - 241 \\ \hline 434 \end{array}$$
4. Captain's electric car can travel = 414 miles
Tigen's can travel = 312 miles
Difference = 414
$$\begin{array}{r} - 312 \\ \hline 102 \end{array}$$
 miles
5. Number of rice bags a truck carry = 78
Number of rice bags can be carried by 93 such trucks
$$93 \times 78 = 7254$$
6. Rohan earlier salary = ₹ 3280
Rohan's salary increase two times,
then present salary = ₹ 3280 × 2
= ₹ 6560
7. Vineeta has meters of ribbon = 102
Ribbon, distribute in 3 girls.
Length of ribbon with each girl = $102 \div 3$
= 34
8. Total number of pages = 864
Number of books = 6
Number of pages in each book = $864 \div 6$
= 144
9. Water was in the tank = 8788 L 336 mL
Overhead tank contains of water = 157 L 785 mL
Capacity of the overhead tank =
= 8788 L 336 mL + 157 L 785 mL
= 8946 L 121 mL
10. Oil tanker contains of oil = 505 L

Oil supplied to one shop = 170 L 620 mL
Oil supplied to another shop = 99 L 965 mL
Oil wasted due to leakage = 885 mL
Oil is now left in the tanker =
= 505 L - (170 L 620 mL + 99 L 965 mL + 885 mL)

= 233 L 530 mL

11. Distance between Rahul's school and his home = 6 miles
Distance between drop point and his home = 1 miles
Distance covered by school bus = 5 miles
Fraction of distance did Rahul cover by the school bus = $\frac{5}{6}$

12. Sophia has money = ₹ 100
Spent money for buying books = ₹ 50
Money she has left after buying books
= ₹ 100 - ₹ 50 = ₹ 50

14. 3 o'clock

15. 29 months

16. Cost of mangoes = ₹ 78.80
Cost of grapes = ₹ 67.80
Cost of melon = ₹ 37.80
Total spend for all fruits = ₹ 78.80
₹ 67.80
$$\begin{array}{r} + ₹ 37.80 \\ \hline ₹ 184.40 \end{array}$$

17. Reena had total money = ₹ 150
Medicines worth = ₹ 39.65
Stationery worth = ₹ 29.90
Grocery worth = ₹ 34.85
Money is left after paying for all the items =
= ₹ 150 - (₹ 39.65 + ₹ 29.90 + ₹ 34.85)
= ₹ 45.60

18. (a) 11, 13, 15 (b) 12, 14, 16
(c) 55, 66, 77 (d) 64, 74, 84

19. Given, Length = 5 cm
Breadth = 4 cm
Area = Length × Breadth
= 5 cm × 4 cm
= 20 sq. cm

20. Triangular field sides = 210m, 180m, 230m
Perimeter (wire required) = 210m + 180m + 230 m
= 620 m.

2. (i) 347, 374, 437, 473, 734, 743
(ii) 509, 590, 950, 905

	Smallest	Greatest
(i)	135	531
(ii)	246	642

	(i)	(ii)	(iii)	(iv)	(v)	(vi)
Smallest	47	30	37	30	35	16
Greatest	87	83	97	43	65	76

	(i)	(ii)	(iii)	(iv)
Smallest	136	235	300	305
Greatest	643	953	730	953

	(i)	(ii)	(iii)	(iv)
Smallest	2479	2346	1038	1357
Greatest	9742	6432	8310	7531

Creative Approach

A. Multiple Choice Questions

1. (a) 5 2. (c) lakh
3. (b) 1,00,000 4. (a) CXXXVI
5. (b) $300000 + 100 + 20 + 3$

B. $532741 > 43213$

C. 1. V, XX, XXXVI

2. The place value of I in this number = 100000
The place value of 3 in this number = 3000
Difference between these place value
 $= 100000 - 3000 = 97000$

D. (i) The place value of 2 = Twenty thousand

The place value of 7 = Seventy

(ii) The place value of 2 = Twenty thousand

The place value of 7 = seven

(iii) The place value of 2 = Two Thousand

The place value of 7 = Twenty thousand



CHAPTER-2

Addition And Subtraction

A. Find the sum.

1. 16813 2. 5715
3. 9925 4. 9455
5. 14600 6. 5484
7. 11004 8. 8874

B. Find the sum.

1. 93557 2. 100710
3. 90708 4. 114990

5. 114627 6. 85822
7. 131034 8. 61508
9. 104079 10. 112950
11. 179821 12. 125657

C. Write each sum. Tell which property is used.

1. 13 2. $9 + 6 = 15$
13 $14 + 1 = 15$
Commutative Associative
3. $63 + 7 = 70$ 4. 122
 $28 + 42 = 70$ 122
Associative Commutative
5. 128 6. $104 + 40 = 144$
128 $132 + 12 = 144$
Commutative Associative

D. Find the sum.

1. 11313 2. 12204
3. 9986 4. 18705
5. 18624 6. 12807
7. 16916 8. 11033
9. 22577

E. Use estimation and rounding off to choose the appropriate answer for each problem :

1. (b) 2400 2. (c) 200
3. (c) 330 4. (a) 100
5. (b) 50,000 6. (a) 1,500

F. Follow the sign and fill the numbers in the boxes.

1. 90 2. 31
3. 45 4. 77
5. 170 6. 125
7. 60 8. 34
9. 105 10. 75
11. 94 12. 120

G. 1. Number of students are passed = 75236

Number of students are failed = 14892

Total number of students appeared in the examination

$$= 75236 + 14892 = 90128$$

2. Number of men = 3786

Number of women = 3672

Number of children = 1508

Total population in village

$$= 3786 + 3672 + 1508 = 8966$$

3. Number of male primary teachers = 5873

Number of female primary teachers = 6389

Total number of teachers = $5873 + 6389$

$$= 12262$$

4. Number of students in grade one = 127

Number of students in grade two = 120

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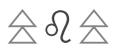
Number of students in grade three = 110
 Number of students in grade four = 100
 Number of students in grade five = 93
 Total number of students
 $= 127 + 120 + 110 + 100 + 193 = 550$

5. Number of mangoes plucked from one tree
 $= 435$
 Number of mangoes plucked from second tree
 $= 450$
 Number of mangoes plucked from third tree
 $= 295$
 Total number of mangoes plucked from the trees
 $= 435 + 450 + 295 = 1180$

6. Number of books in french = 3730
 Number of books in English = 2531
 Number of books in other languages = 5368
 Total books in library = $3730 + 2531 + 5368 = 11629$

7. Number of bags of wheat = 37536
 Number of bags of rice = 35380
 Number of bags of gram = 25240
 Total number of bags in the store
 $= 37536 + 35380 + 25240 = 98156$

8. School management spent on teacher's pay
 $= ₹ 26756$
 Spent on building construction = ₹ 325378
 Spent on games = ₹ 5780
 Spent on other work = ₹ 8235
 Total amount spent on different items
 $= ₹ 26756 + ₹ 325378 + ₹ 5780 + ₹ 8235 = ₹ 366149$

H. 2.  3. 
 4.  5. 
 6. 

I. Do the subtraction of the given numbers.

- | | |
|------------|-------------|
| 1. 6414207 | 2. 3812102 |
| 3. 9356038 | 4. 8948752 |
| 5. 4022744 | 6. 2232391 |
| 7. 3180646 | 8. 7793963 |
| 9. 4892574 | 10. 9611831 |

J. Answer the following :

- | | |
|-------------------|----------------|
| 1. Greater number | Subtraction |
| (i) 19 | $19 - 9 = 10$ |
| (ii) 75 | $75 - 57 = 18$ |

- | | |
|------------|---------------------|
| (iii) 96 | $96 - 69 = 27$ |
| (iv) 38 | $38 - 37 = 1$ |
| (v) 531 | $531 - 351 = 180$ |
| (vi) 315 | $315 - 215 = 100$ |
| (vii) 221 | $221 - 212 = 9$ |
| (viii) 121 | $121 - 112 = 9$ |
| (ix) 4237 | $4327 - 3427 = 810$ |
| (x) 1171 | $1171 - 1117 = 54$ |
| (xi) 3725 | $3725 - 3275 = 450$ |
| (xii) 1020 | $1020 - 1002 = 18$ |

2. (i) 349 (ii) 0
 (iii) 0 (iv) 1835
 (v) 1234 (vi) 5712
 (vii) 2739 (viii) 0
3. (i) 11 (ii) 111
 (iii) 1111
4. (i) The sum of two numbers = 588
 One of the number = 231
 Other number = $588 - 231 = 357$
 (ii) Do Yourself
5. (i) $379 - 0 = 379$
 (ii) $4785 - 4785 = 0$
6. (i) $256 + 111 = 367$ and $111 + 256 = 367$
 (ii) $4507 + 910 = 5417$
 and $910 + 4507 = 5417$
 (iii) $2001 - 1927 = 3928$
 and $1927 + 2001 = 3928$

- K. 1. 4 doctors + 8 nurses + 2 receptionists
 $= 14$ people
2. Number of doctors = 4
 Number of patients made appointment with each doctor = 23
 Total number of patients = $23 \times 4 = 92$
 Number of patients did not show up = 6
 Number of patients visited the clinic on monday
 $= 92 - 6 = 86$
3. Number of phone calls, jaya answered = 45
 Number of phone calls, Meena answered
 $= 45 + 12 = 57$
 Calls were answered in total
 $= 45 + 57 = 102$ Calls
4. Number of calls to patients by 2 Nurses and jaya = 36
 Calls did they each make = $36 \div 3 = 12$ calls

5. Number of patients on wednesday = 36
 Number of patients decide to cancel appointment = 13
 Number of patients decided to postpone appointment

$$= 36 - 13$$

$$= 23 \text{ appointments}$$

6. Let number of patients = x
 doctor gets payments from patients = ₹ 800 x
 The doctor will be paid = ₹ 8800

$$800x = 8800$$

$$x = \frac{8800}{800} = 11$$

- L. 1.
$$\begin{array}{r} 528 \\ + 289 \\ \hline 817 \end{array}$$
 Now,
$$\begin{array}{r} 817 \\ - 113 \\ \hline 704 \end{array}$$
2.
$$\begin{array}{r} 734 \\ - 552 \\ \hline 182 \end{array}$$
 Now,
$$\begin{array}{r} 182 \\ + 250 \\ \hline 432 \end{array}$$
3.
$$\begin{array}{r} 437 \\ + 629 \\ \hline 1066 \end{array}$$
 Now,
$$\begin{array}{r} 1066 \\ - 257 \\ \hline 809 \end{array}$$
4.
$$\begin{array}{r} 532 \\ - 143 \\ \hline 389 \end{array}$$
 Now,
$$\begin{array}{r} 389 \\ + 442 \\ \hline 831 \end{array}$$
5.
$$\begin{array}{r} 443 \\ + 572 \\ \hline 1015 \end{array}$$
 Now,
$$\begin{array}{r} 1015 \\ - 362 \\ \hline 653 \end{array}$$
6.
$$\begin{array}{r} 874 \\ - 362 \\ \hline 512 \end{array}$$
 Now,
$$\begin{array}{r} 512 \\ + 263 \\ \hline 775 \end{array}$$
7.
$$\begin{array}{r} 263 \\ + 528 \\ \hline 791 \end{array}$$
 Now,
$$\begin{array}{r} 791 \\ - 344 \\ \hline 447 \end{array}$$
8.
$$\begin{array}{r} 793 \\ - 528 \\ \hline 265 \end{array}$$
 Now,
$$\begin{array}{r} 265 \\ + 308 \\ \hline 573 \end{array}$$
9.
$$\begin{array}{r} 754 \\ + 146 \\ \hline 900 \end{array}$$
 Now,
$$\begin{array}{r} 900 \\ - 426 \\ \hline 474 \end{array}$$
10.
$$\begin{array}{r} 663 \\ - 422 \\ \hline 241 \end{array}$$
 Now,
$$\begin{array}{r} 241 \\ + 382 \\ \hline 623 \end{array}$$
11.
$$\begin{array}{r} 536 \\ + 574 \\ \hline 1110 \end{array}$$
 Now,
$$\begin{array}{r} 1110 \\ - 162 \\ \hline 948 \end{array}$$

12.
$$\begin{array}{r} 653 \\ - 291 \\ \hline 362 \end{array}$$
 Now,
$$\begin{array}{r} 362 \\ + 100 \\ \hline 462 \end{array}$$

Creative Approach

A. Multiple Choice Questions.

1. (c) 12833 2. (b) 100999
 3. (b) 664871 4. (c) 2139
 5. (d) 4889

B. Picture Based Questions.

- 23 17 19 16 21 14 18
 410 317 344 407 338 378 389
 923 786 1411 900 820 666 1124
 1734 1633 1645 1796 1841 1171 1770 1022

- C. 1. Number of people watched semi-final = 82317
 Number of people watched the final

$$= 82317 + 31896$$

$$= 114213$$

2. Number of fish in lake = 172392

Number of fish in pond = 189231

More fish were in pond than in lake

$$= 189231 - 172392$$

$$= 16839$$

- D. Total population of khetri and Chirawa = 362105

Population of men = 146368

Population of women = 127858

1. Then, Population of children

$$= 362105 - (146368 + 127858)$$

$$= 87879.$$

2. Number of people is a city = 44652

Number of people moved away to another town = 2689

Number of people are left in the city now

$$= 44652 - 2689 = 41963.$$

- E. 121212



CHAPTER-3
Multiplication

- A. Find the missing number. Notice the identity property.

1. 4 2. 1 3. 1 4. 8/14

- B. Find the products of these equations. Notice the identity property.

1. 83 2. 45 3. 38

- C. Solve the following :

1. 18102 2. 21336 3. 38171
 4. 22659 5. 6715 6. 39529
 7. 2398 8. 15350

44 Mathematics Answer Key 1 to 5

- D. 1.
$$\begin{array}{r} 35 \\ \times 97 \\ \hline 245 \\ + 3150 \\ \hline 3395 \end{array}$$
2.
$$\begin{array}{r} 36 \\ \times 20 \\ \hline 00 \\ + 720 \\ \hline 720 \end{array}$$
3.
$$\begin{array}{r} 29 \\ \times 64 \\ \hline 116 \\ + 1740 \\ \hline 1856 \end{array}$$
4.
$$\begin{array}{r} 53 \\ \times 95 \\ \hline 265 \\ + 4770 \\ \hline 5035 \end{array}$$
5.
$$\begin{array}{r} 71 \\ \times 74 \\ \hline 284 \\ + 4970 \\ \hline 5254 \end{array}$$
6.
$$\begin{array}{r} 74 \\ \times 11 \\ \hline 74 \\ + 740 \\ \hline 814 \end{array}$$
7.
$$\begin{array}{r} 19 \\ \times 77 \\ \hline 133 \\ + 1330 \\ \hline 1463 \end{array}$$
8.
$$\begin{array}{r} 96 \\ \times 58 \\ \hline 768 \\ + 4800 \\ \hline 5568 \end{array}$$
- E. 1.
$$\begin{array}{r} 299 \\ \times 362 \\ \hline 598 \\ 17940 \\ + 89700 \\ \hline 108238 \end{array}$$
2.
$$\begin{array}{r} 188 \\ \times 740 \\ \hline 000 \\ 7520 \\ + 131600 \\ \hline 139120 \end{array}$$
3.
$$\begin{array}{r} 191 \\ \times 129 \\ \hline 1719 \\ 3820 \\ + 19100 \\ \hline 24639 \end{array}$$
4.
$$\begin{array}{r} 340 \\ \times 962 \\ \hline 680 \\ 20400 \\ + 306000 \\ \hline 327080 \end{array}$$
5.
$$\begin{array}{r} 529 \\ \times 132 \\ \hline 1058 \\ 15870 \\ + 52900 \\ \hline 69828 \end{array}$$
6.
$$\begin{array}{r} 290 \\ \times 426 \\ \hline 1740 \\ 5800 \\ + 116000 \\ \hline 123540 \end{array}$$
7.
$$\begin{array}{r} 850 \\ \times 707 \\ \hline 5950 \\ 0000 \\ + 595000 \\ \hline 600950 \end{array}$$
8.
$$\begin{array}{r} 468 \\ \times 162 \\ \hline 936 \\ 28080 \\ + 46800 \\ \hline 75816 \end{array}$$

9.
$$\begin{array}{r} 513 \\ \times 653 \\ \hline 1539 \\ 25650 \\ + 307800 \\ \hline 334489 \end{array}$$
- F. 1. $1908 \Rightarrow 1900$, 1908 is rounded down to 1900
 $1900 \times 8 = 15200$
2. $6099 \Rightarrow 6100$, 6099 is rounded up to 6100
 $6100 \times 5 = 30500$
3. $1108 \Rightarrow 1100$, 1108 is rounded down to 1100
 $1100 \times 7 = 7700$
4. $5239 \Rightarrow 5200$, 5239 is rounded down to 5200
 $5200 \times 9 = 46800$
5. $81 \Rightarrow 80$, 81 is rounded down to 80
 $32 \Rightarrow 30$, 32 is rounded down to 30
 $80 \times 30 = 2400$
6. $19 \Rightarrow 20$, 19 is rounded up to 20
 $62 \Rightarrow 60$, 62 is rounded down to 60
 $20 \times 60 = 1200$
7. $39 \Rightarrow 40$, 39 is rounded up to 40
 $44 \Rightarrow 40$, 44 is rounded down to 40
 $40 \times 40 = 1600$
8. $94 \Rightarrow 90$, 94 is rounded down to 90
 $12 \Rightarrow 10$, 12 is rounded down to 10
 $90 \times 10 = 900$
- G. 1. 43000 2. 19000
 3. 27000 4. 14000
 5. 25000 6. 50000
 7. 1300 8. 700
 9. 1500 10. 2800
 11. 3300, 12. 3500
- H. 1. Number of bananas in each box = 32
 Number of bananas are in 53 boxes
 $= 53 \times 32 = 1696$ bananas
2. Ravi went to the store in the month = 11 times
 Number of candies bought each time = 31
 Number of candies did Ravi buy in that month
 $= 11 \times 31 = 341$ candies
3. Each block costs = ₹ 47.00
 Cost of 32 blocks = ₹ 47.00×32
 $= ₹ 1504$
4. Tarun went to the store is last month = 27 times
 Number of apples bought each time = 91
 Number of apples did tarun buy in last month
 $= 27 \times 91 = 2457$ apples.

5. Number of boxes of blocks meena has = 41
 Each box holds blocks = 18
 Number of blocks does meena has = 41×18
 = 738 blocks

Creative Approach

A. Multiple Choice Questions.

1. (b) product 2. (d) 150×120
 3. (b) 945 4. (b) 300×50
 5. (c) 604800

B. Picture Based Questions.

- (i) 44 88 55 66 11 33 22
 (ii) 91 52 104 65 78 13 39 26

- C. 1.** Number of bicycles dealer buy = 285
 Cost of each bicycle = ₹ 3665
 Total cost = ₹ 3665×285 = ₹ 1044525.
2. Tour fee for one student = ₹ 1658
 Tour fee for 284 student = ₹ 1658×284
 = ₹ 470872

- D.** Shyam works for hours in a day = 10 hours
 Shyam works for hours in 5 days = 10×5
 = 50 hours.
 Ram works for hours in a day = 9 hours
 Ram works for hours in 6 days = 9×6 = 54 hours
 Hence,
 Ram work for more hours in a week and by 4 hours.

E. Activity Zone

1. 6×4 4×6
 3×8 10×2
 2. 5×4 2×10
 4×5 2×10



CHAPTER-4
Division

- A. 1.**
$$\begin{array}{r} 1685 \\ 4 \overline{)6743} \\ \underline{-4} \\ 27 \\ \underline{-24} \\ 34 \\ \underline{-32} \\ 23 \\ \underline{-20} \\ 3 \end{array}$$

 Quotient = 1685
 Remainder = 3
- 2.**
$$\begin{array}{r} 3842 \\ 2 \overline{)7685} \\ \underline{-6} \\ 16 \\ \underline{-16} \\ 08 \\ \underline{-8} \\ 05 \\ \underline{-04} \\ 1 \end{array}$$

 Quotient = 3842
 Remainder = 1

- 3.**
$$\begin{array}{r} 4365 \\ 2 \overline{)8731} \\ \underline{-8} \\ 07 \\ \underline{-6} \\ 13 \\ \underline{-12} \\ 11 \\ \underline{-10} \\ 1 \end{array}$$

 Quotient = 4365
 Remainder = 1
- 4.**
$$\begin{array}{r} 1194 \\ 7 \overline{)8360} \\ \underline{-7} \\ 13 \\ \underline{-7} \\ 66 \\ \underline{-63} \\ 30 \\ \underline{-28} \\ 2 \end{array}$$

 Quotient = 1194
 Remainder = 2
- 5.**
$$\begin{array}{r} 1477 \\ 4 \overline{)5910} \\ \underline{-4} \\ 19 \\ \underline{-16} \\ 30 \\ \underline{-28} \\ 2 \end{array}$$

 Quotient = 1477
 Remainder = 2
- 6.**
$$\begin{array}{r} 963 \\ 5 \overline{)4817} \\ \underline{-45} \\ 31 \\ \underline{-30} \\ 17 \\ \underline{-15} \\ 2 \end{array}$$

 Quotient = 963
 Remainder = 2
- 7.**
$$\begin{array}{r} 439 \\ 8 \overline{)3515} \\ \underline{-32} \\ 31 \\ \underline{-24} \\ 75 \\ \underline{-72} \\ 3 \end{array}$$

 Quotient = 439
 Remainder = 3
- 8.**
$$\begin{array}{r} 733 \\ 7 \overline{)5134} \\ \underline{-49} \\ 23 \\ \underline{-21} \\ 24 \\ \underline{-21} \\ 3 \end{array}$$

 Quotient = 733
 Remainder = 3
- 9.**
$$\begin{array}{r} 753 \\ 8 \overline{)6029} \\ \underline{-56} \\ 42 \\ \underline{-40} \\ 29 \\ \underline{-24} \\ 5 \end{array}$$

 Quotient = 753
 Remainder = 5

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B. 1.

$$\begin{array}{r} 1593 \\ 3 \overline{)4780} \\ -3 \\ \hline 17 \\ -15 \\ \hline 28 \\ -27 \\ \hline 10 \\ -9 \\ \hline 1 \\ \hline \end{array}$$

Quotient = 1593
Remainder = 1

2.

$$\begin{array}{r} 1723 \\ 3 \overline{)5170} \\ -3 \\ \hline 21 \\ -21 \\ \hline 07 \\ -6 \\ \hline 10 \\ -9 \\ \hline 1 \\ \hline \end{array}$$

Quotient = 1723
Remainder = 1

3.

$$\begin{array}{r} 871 \\ 8 \overline{)6972} \\ -64 \\ \hline 57 \\ -56 \\ \hline 12 \\ -8 \\ \hline 4 \\ \hline \end{array}$$

Quotient = 871
Remainder = 4

4.

$$\begin{array}{r} 846 \\ 7 \overline{)5925} \\ -56 \\ \hline 32 \\ -28 \\ \hline 45 \\ -42 \\ \hline 3 \\ \hline \end{array}$$

Quotient = 846
Remainder = 3

5.

$$\begin{array}{r} 1175 \\ 8 \overline{)9405} \\ -8 \\ \hline 14 \\ -8 \\ \hline 60 \\ -56 \\ \hline 45 \\ -40 \\ \hline 5 \\ \hline \end{array}$$

Quotient = 1175
Remainder = 5

6.

$$\begin{array}{r} 446 \\ 7 \overline{)3122} \\ -28 \\ \hline 32 \\ -28 \\ \hline 42 \\ -42 \\ \hline 0 \\ \hline \end{array}$$

Quotient = 446
Remainder = 0

7.

$$\begin{array}{r} 1276 \\ 5 \overline{)6383} \\ -5 \\ \hline 13 \\ -10 \\ \hline 38 \\ -35 \\ \hline 33 \\ -30 \\ \hline 3 \\ \hline \end{array}$$

Quotient = 1276
Remainder = 3

8.

$$\begin{array}{r} 1058 \\ 5 \overline{)5291} \\ -5 \\ \hline 029 \\ -25 \\ \hline 41 \\ -40 \\ \hline 1 \\ \hline \end{array}$$

Quotient = 1058
Remainder = 1

9.

$$\begin{array}{r} 2125 \\ 4 \overline{)8515} \\ -8 \\ \hline 05 \\ 4 \\ \hline 11 \\ -8 \\ \hline 35 \\ -32 \\ \hline 3 \\ \hline \end{array}$$

Quotient = 2128
Remainder = 3

C. 1. (i) $27 \div 9 = 3$

Verification
 $3 \times 9 = 27$

(iii) $45 \div 5 = 9$

Verification
 $9 \times 5 = 45$

2. (i) $9 \div 9 = 1$

(iii) $24 \div 6 = 4$

3. (i)

$$\begin{array}{r} 7 \\ 7 \overline{)53} \\ -49 \\ \hline 4 \\ \hline \end{array}$$

Quotient = 7
Remainder = 4

(ii) $72 \div 9 = 8$

Verification
 $8 \times 9 = 72$

(iv) $54 \div 6 = 9$

Verification
 $9 \times 6 = 54$

(ii) $9 \div 3 = 3$

(iv) $56 \div 7 = 8$

(ii)

$$\begin{array}{r} 4 \\ 6 \overline{)27} \\ -24 \\ \hline 3 \\ \hline \end{array}$$

Quotient = 4
Remainder = 3

$$\begin{array}{r} \text{(iii)} \quad 9 \overline{)78} \\ - 72 \\ \hline 6 \end{array}$$

Quotient = 8
Remainder = 6

$$\begin{array}{r} \text{(iv)} \quad 3 \overline{)51} \\ - 3 \\ \hline 21 \\ - 21 \\ \hline 0 \end{array}$$

Quotient = 17
Remainder = 0

$$\begin{array}{r} \text{(v)} \quad 4 \overline{)86} \\ - 8 \\ \hline 06 \\ - 4 \\ \hline 2 \end{array}$$

Quotient = 21
Remainder = 2

$$\begin{array}{r} \text{(vi)} \quad 8 \overline{)93} \\ - 8 \\ \hline 13 \\ - 8 \\ \hline 5 \end{array}$$

Quotient = 11
Remainder = 5

$$\begin{array}{r} \text{4. (i)} \quad 7 \overline{)483} \\ - 42 \\ \hline 63 \\ - 63 \\ \hline 0 \end{array}$$

Verification

$$\begin{aligned} (69 \times 3) + 0 &= 483 \\ 483 + 0 &= 483 \\ 483 &= 483 \end{aligned}$$

$$\begin{array}{r} \text{(ii)} \quad 7 \overline{)485} \\ - 42 \\ \hline 65 \\ - 63 \\ \hline 2 \end{array}$$

Verification

$$\begin{aligned} (69 \times 7) + 2 &= 485 \\ 483 + 2 &= 485 \\ 485 &= 485 \end{aligned}$$

$$\begin{array}{r} \text{(iii)} \quad 8 \overline{)237} \\ - 16 \\ \hline 77 \\ - 72 \\ \hline 5 \end{array}$$

Verification

$$\begin{aligned} (29 \times 8) + 5 &= 237 \\ 232 + 5 &= 237 \\ 237 &= 237 \end{aligned}$$

$$\begin{array}{r} \text{(iv)} \quad 6 \overline{)666} \\ - 666 \\ \hline 0 \end{array}$$

Verification

$$\begin{aligned} (6 \times 111) + 0 &= 666 \\ 666 &= 666 \end{aligned}$$

$$\begin{array}{r} \text{(v)} \quad 8 \overline{)732} \\ - 72 \\ \hline 12 \\ - 8 \\ \hline 4 \end{array}$$

$$\begin{aligned} (91 \times 8) + 4 &= 732 \\ 728 + 4 &= 732 \\ 732 &= 732 \end{aligned}$$

$$\begin{array}{r} \text{(vi)} \quad 5 \overline{)560} \\ - 5 \\ \hline 06 \\ - 5 \\ \hline 10 \\ - 10 \\ \hline 0 \end{array}$$

$$\begin{aligned} (112 \times 5) + 0 &= 560 \\ 560 &= 560 \end{aligned}$$

$$\begin{array}{r} \text{(vii)} \quad 3 \overline{)429} \\ - 3 \\ \hline 12 \\ - 12 \\ \hline 09 \\ - 9 \\ \hline 0 \end{array}$$

$$\begin{aligned} (143 \times 3) + 0 &= 429 \\ 429 &= 429 \end{aligned}$$

$$\begin{array}{r} \text{(viii)} \quad 3 \overline{)942} \\ - 9 \\ \hline 04 \\ - 3 \\ \hline 12 \\ - 12 \\ \hline 0 \end{array}$$

$$\begin{aligned} (314 \times 3) + 0 &= 942 \\ 942 &= 942 \end{aligned}$$

$$\begin{array}{r} \text{(ix)} \quad 3 \overline{)492} \\ - 3 \\ \hline 19 \\ - 18 \\ \hline 12 \\ - 12 \\ \hline 0 \end{array}$$

$$\begin{aligned} (164 \times 3) + 0 &= 492 \\ 492 &= 492 \end{aligned}$$

$$\begin{array}{r} \text{5. (i)} \quad 2 \overline{)2151} \\ - 2 \\ \hline 015 \\ - 14 \\ \hline 11 \\ - 10 \\ \hline 1 \end{array}$$

$$\begin{array}{r} \text{(ii)} \quad 3 \overline{)4050} \\ - 3 \\ \hline 10 \\ - 9 \\ \hline 15 \\ - 15 \\ \hline 00 \end{array}$$

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quotient = 1075 $q = 1350$
 Remainder = 1 $r = 0$
 verification verification
 $(1075 \times 2) + 1 = 2151$ $1350 \times 3 + 0 = 4050$
 $2150 + 1 = 2151$ $4050 = 4050$
 $2151 = 2151$

(iii)	$\begin{array}{r} 1038 \\ 4 \overline{)4152} \\ \underline{4} \\ 015 \\ \underline{-12} \\ 32 \\ \underline{-32} \\ 0 \end{array}$	(iv)	$\begin{array}{r} 839 \\ 5 \overline{)4198} \\ \underline{-40} \\ 19 \\ \underline{-15} \\ 48 \\ \underline{-45} \\ 3 \end{array}$
	$q = 1035$ $r = 0$ $(1038 \times 4) + 0 = 4152$ $4152 = 4152$		$q = 839$ $r = 3$ $(839 \times 5) + 3 = 4198$ $4198 = 4198$

(v)	$\begin{array}{r} 701 \\ 6 \overline{)4210} \\ \underline{-42} \\ 010 \\ \underline{-6} \\ 4 \end{array}$	(vi)	$\begin{array}{r} 290 \\ 7 \overline{)2034} \\ \underline{-14} \\ 63 \\ \underline{-63} \\ 04 \end{array}$
	$q = 701$ $r = 4$ $(701 \times 6) + 4 = 4210$ $4210 = 4210$		$q = 290$ $r = 4$ $(290 \times 7) + 4 = 2034$ $2030 + 4 = 2030$ $2034 = 2034$

(vii)	$\begin{array}{r} 865 \\ 8 \overline{)6927} \\ \underline{-64} \\ 52 \\ \underline{-48} \\ 47 \\ \underline{-40} \\ 7 \end{array}$	(viii)	$\begin{array}{r} 944 \\ 9 \overline{)8503} \\ \underline{-81} \\ 40 \\ \underline{-36} \\ 43 \\ \underline{-36} \\ 7 \end{array}$
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$q = 865$ $q = 944$
 $r = 7$ $r = 7$
 $(865 \times 8) + 7 = 6927$ $(944 \times 9) + 7 = 8503$
 $6927 = 6927$ $8503 = 8503$

(ix)

$$\begin{array}{r} 413 \\ 5 \overline{)2069} \\ \underline{-20} \\ 06 \\ \underline{-5} \\ 19 \\ \underline{-15} \\ 4 \end{array}$$

$q = 413$
 $r = 4$

verification
 $(413 \times 5) + 4 = 2069$
 $2065 + 4 = 2069$
 $2069 = 2069$

D. 1.	$\begin{array}{r} 42 \\ 10 \overline{)425} \\ \underline{-40} \\ 25 \\ \underline{-20} \\ 5 \end{array}$	2.	$\begin{array}{r} 94 \\ 10 \overline{)945} \\ \underline{-90} \\ 45 \\ \underline{-40} \\ 5 \end{array}$
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Quotient = 42 Remainder = 5	Quotient = 94 Remainder = 5
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3.	$\begin{array}{r} 91 \\ 10 \overline{)913} \\ \underline{-90} \\ 13 \\ \underline{-10} \\ 3 \end{array}$	4.	$\begin{array}{r} 318 \\ 10 \overline{)3181} \\ \underline{-30} \\ 18 \\ \underline{-10} \\ 81 \\ \underline{-80} \\ 1 \end{array}$
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Quotient = 91 Remainder = 3	Quotient = 318 Remainder = 1
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$$\begin{array}{r}
 5. \quad \begin{array}{r} 9975 \\ 10 \overline{)99757} \\ \underline{-90} \\ 97 \\ \underline{-90} \\ 75 \\ \underline{-70} \\ 57 \\ \underline{-50} \\ 7 \end{array}
 \end{array}$$

Quotient = 9975
Remainder = 7

$$\begin{array}{r}
 7. \quad \begin{array}{r} 76 \\ 100 \overline{)7643} \\ \underline{-700} \\ 643 \\ \underline{-600} \\ 43 \end{array}
 \end{array}$$

Quotient = 76
Remainder = 43

$$\begin{array}{r}
 9. \quad \begin{array}{r} 135 \\ 100 \overline{)13548} \\ \underline{-100} \\ 354 \\ \underline{-300} \\ 548 \\ \underline{-500} \\ 48 \end{array}
 \end{array}$$

Quotient = 135
Remainder = 48

$$\begin{array}{r}
 11. \quad \begin{array}{r} 240 \\ 100 \overline{)24058} \\ \underline{-200} \\ 405 \\ \underline{-400} \\ 58 \end{array}
 \end{array}$$

Quotient = 240
Remainder = 58

$$\begin{array}{r}
 6. \quad \begin{array}{r} 1403 \\ 10 \overline{)14038} \\ \underline{-10} \\ 40 \\ \underline{-40} \\ 038 \\ \underline{-30} \\ 8 \end{array}
 \end{array}$$

Quotient = 1403
Remainder = 8

$$\begin{array}{r}
 8. \quad \begin{array}{r} 570 \\ 100 \overline{)57039} \\ \underline{-500} \\ 703 \\ \underline{-700} \\ 39 \end{array}
 \end{array}$$

Quotient = 570
Remainder = 39

$$\begin{array}{r}
 10. \quad \begin{array}{r} 684 \\ 100 \overline{)68435} \\ \underline{-600} \\ 843 \\ \underline{-800} \\ 435 \\ \underline{-400} \\ 35 \end{array}
 \end{array}$$

Quotient = 684
Remainder = 35

$$\begin{array}{r}
 12. \quad \begin{array}{r} 68 \\ 1000 \overline{)68421} \\ \underline{-6000} \\ 8421 \\ \underline{-8000} \\ 421 \end{array}
 \end{array}$$

Quotient = 68
Remainder = 421

$$\begin{array}{r}
 13. \quad \begin{array}{r} 264 \\ 100 \overline{)26432} \\ \underline{-200} \\ 643 \\ \underline{-600} \\ 432 \\ \underline{-400} \\ 32 \end{array}
 \end{array}$$

Quotient = 264
Remainder = 32

$$\begin{array}{r}
 15. \quad \begin{array}{r} 8365 \\ 1000 \overline{)8365} \\ \underline{-8000} \\ 365 \end{array}
 \end{array}$$

Quotient = 8
Remainder = 365

$$\begin{array}{r}
 17. \quad \begin{array}{r} 52 \\ 1000 \overline{)52460} \\ \underline{-5000} \\ 2460 \\ \underline{-2000} \\ 460 \end{array}
 \end{array}$$

Quotient = 52
Remainder = 460

$$\begin{array}{r}
 14. \quad \begin{array}{r} 249 \\ 100 \overline{)24952} \\ \underline{-200} \\ 495 \\ \underline{-400} \\ 952 \\ \underline{-900} \\ 52 \end{array}
 \end{array}$$

Quotient = 249
Remainder = 52

$$\begin{array}{r}
 16. \quad \begin{array}{r} 34523 \\ 1000 \overline{)34523} \\ \underline{-3000} \\ 4523 \\ \underline{-4000} \\ 523 \end{array}
 \end{array}$$

Quotient = 34
Remainder = 523

$$\begin{array}{r}
 18. \quad \begin{array}{r} 35 \\ 1000 \overline{)35384} \\ \underline{-3000} \\ 3584 \\ \underline{-5000} \\ 384 \end{array}
 \end{array}$$

Quotient = 35
Remainder = 384

- E. (i) 6, 0 (ii) 5, 3 (iii) 8, 0

Creative Approach

A. Multiple Choice Questions.

1. (c) 5 2. (d) 101
3. (a) 50 4. (a) ₹ 4827

B. Picture Based Questions

- (i) 4 5 6 7 8 9 11
(ii) 12 10 20 50 70 100 120 150

- C. 1. Mrs. Monika with dew amount = ₹ 9040
The cashier paid her the money in 20 rupees denominations.
Number of notes did she get = ₹ 9040 ÷ 20
= 452 notes.

50 Mathematics Answer Key 1 to 5

2. Number of bags can be loaded in a wagon = 79
 Number of wagon required for loading 9875 bags

$$= 9875 \div 79 = 125 \text{ wagon.}$$

D. Number of candy bar made this week = 1000
 Number of candy bar contain in a box = 36 bars
 Number of full boxes of candy bars they ship

$$= 1000 \div 36 = 27 \text{ fullboxes}$$

□□

CHAPTER-5

Vedic Mathematics

A. Write the Ekhadhikena purvena of the following numbers :

- | | |
|-----------|------|
| 3. 0̇82 | 182 |
| 4. 5̇48 | 648 |
| 5. 0̇256 | 1256 |
| 6. 4̇3 | 53 |
| 7. 6̇71 | 771 |
| 8. 26̇04 | 2704 |
| 9. 6̇235 | 7235 |
| 10. 04̇95 | 0595 |

- | | |
|--------------|--------------|
| B. 1. 54 | 2. 72 |
| + 2̇9 | + 0̇69 |
| <u>83</u> | <u>141</u> |
| 3. 894 | 4. 290 |
| + 0̇723 | + 1̇58 |
| <u>1617</u> | <u>448</u> |
| 5. 4026 | 6. 7058 |
| + 34̇14 | + 0̇52̇95 |
| <u>7440</u> | <u>12353</u> |
| 7. 58610 | 8. 79005 |
| + 2̇3205 | + 1̇52̇49 |
| <u>81815</u> | <u>94254</u> |

- | | | |
|---------------------|-------------------|------------|
| C. Number | Eknyunena purvena | New number |
| 1. 7 in number 37 | 3̇7 | 27 |
| 2. 2 in number 623 | 6̇23 | 523 |
| 3. 6 in number 760 | 7̇60 | 660 |
| 4. 8 in number 1826 | 18̇26 | 0826 |

- | | | |
|---------------------|------|------|
| 5. 5 in number 7531 | 7531 | 6531 |
| 6. 2 in number 9682 | 9682 | 9672 |

- | | |
|---------------|---------------|
| D. 1. 43 | 2. 781 |
| - 27 | - 273 |
| <u>16</u> | <u>508</u> |
| 3. 874 | 4. 6437 |
| - 687 | - 2329 |
| <u>187</u> | <u>4108</u> |
| 5. 8942 | 6. 87399 |
| - 3424 | - 44815 |
| <u>5518</u> | <u>42584</u> |
| 7. 738417 | 8. 939012 |
| - 333145 | - 126788 |
| <u>405272</u> | <u>812224</u> |

Practice with Vedic Maths

- | | | |
|---------------------|---------------------|------------|
| A. Number | Ekhadhikena purvena | New number |
| 1. 8 in number 83 | 0̇83 | 183 |
| 2. 4 in number 148 | 1̇48 | 248 |
| 3. 2 in number 257 | 0̇257 | 1257 |
| 4. 3 in number 63 | 6̇3 | 73 |
| 5. 7 in number 273 | 2̇73 | 373 |
| 6. 2 in number 6235 | 6̇235 | 7235 |
| B. 1. 28 | 2. 34 | |
| + 1̇5 | + 2̇8 | |
| <u>43</u> | <u>+ 13</u> | |
| | <u>75</u> | |
| 3. 294 | 4. 9234 | |
| + 0̇842 | + 0̇5971 | |
| <u>1136</u> | <u>15205</u> | |
| 5. 88034 | 6. 84517 | |
| + 0̇71453 | + 0̇73928 | |
| <u>159487</u> | + 0̇62973 | |
| | <u>221418</u> | |

$\begin{array}{r} 7. \quad 935354 \\ + 0512231 \\ \hline 1447585 \end{array}$	$\begin{array}{r} 8. \quad 944010 \\ + 0823205 \\ \hline 1767215 \end{array}$
---	---

C.	Number	Eknyunena Purvena	New number
1.	6 in number 860	860	760
2.	7 in number 571	571	471
3.	0 is number 1410	1410	1400
4.	5 in number 6532	6532	5532
5.	3 in number 9873	9873	9863

$\begin{array}{r} D. \quad 1. \quad 43 \\ - 17 \\ \hline 26 \end{array}$	$\begin{array}{r} 2. \quad 84 \\ - 57 \\ \hline 27 \end{array}$
$\begin{array}{r} 3. \quad 4356 \\ - 2872 \\ \hline 1484 \end{array}$	$\begin{array}{r} 4. \quad 5669 \\ - 2263 \\ \hline 3406 \end{array}$
$\begin{array}{r} 5. \quad 78505 \\ - 76768 \\ \hline 01737 \end{array}$	$\begin{array}{r} 6. \quad 64485 \\ - 59293 \\ \hline 05192 \end{array}$
$\begin{array}{r} 7. \quad 606167 \\ - 125052 \\ \hline 481115 \end{array}$	$\begin{array}{r} 8. \quad 908902 \\ - 427260 \\ \hline 481642 \end{array}$

□□

CHAPTER-6

Multiples and Factors with HCF and LCM

- A. Solve the following.
1. 9, 18, 27, 36
 2. 7, 14, 21, 35
 3. 40, 64, 72
 4. Yes, 4 is even
 5. No, 3 is odd
- B. Circle the common multiples of the pair of numbers, then answer the questions.
1. 20, 20;
 2. 42, 42;
- C. Fill in the blanks and find the least common multiples below.
1. 4, 6, 8, 10
 2. 6, 9, 12, 15, 18, 21, 24
 - 6, 9, 12, 15
 - 8, 12, 16, 20, 24, 28, 32
 - 6, 12,
 - 12, 24,

- D. (i) $10 = 1 \times 10$
 $10 = 2 \times 5$
 Factors of 10 = 1, 2, 5, 10
- (ii) $12 = 1 \times 12$
 $12 = 2 \times 6$
 $12 = 3 \times 4$
 Factors of 12 = 1, 2, 3, 4, 6, 12
- (iii) $30 = 1 \times 30$
 $30 = 2 \times 15$
 $30 = 3 \times 10$
 $30 = 5 \times 6$
 Factors of 30 = 1, 2, 3, 5, 6, 10, 15, 30
- (iv) $45 = 1 \times 45$
 $45 = 3 \times 15$
 $45 = 5 \times 9$
 Factors of 45 = 1, 3, 5, 9, 15, 45
- (v) $60 = 1 \times 60$
 $60 = 2 \times 30$
 $60 = 3 \times 20$
 $60 = 4 \times 15$
 $60 = 5 \times 12$
 $60 = 6 \times 10$
 Factors of 60 = 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
- (vi) $25 = 1 \times 25$
 $25 = 5 \times 5$
 Factors of 25 = 1, 5, 25
- (vii) $18 = 1 \times 18$
 $18 = 2 \times 9$
 $18 = 3 \times 6$
 Factors of 18 = 1, 2, 3, 6, 9, 18
- (viii) $72 = 1 \times 72$
 $72 = 2 \times 36$
 $72 = 3 \times 24$
 $72 = 4 \times 18$
 $72 = 6 \times 12$
 Factors of 72 = 1, 2, 3, 4, 6, 12, 18, 24, 36, 72
- (ix) $96 = 1 \times 96$
 $96 = 2 \times 48$
 $96 = 3 \times 32$
 $96 = 4 \times 24$

52 Mathematics Answer Key 1 to 5

$$96 = 6 \times 16$$

$$96 = 8 \times 12$$

Factors of 96 = 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96

(x) $54 = 1 \times 54$

$$54 = 2 \times 27$$

$$54 = 3 \times 18$$

$$54 = 6 \times 9$$

Factors of 54 = 1, 2, 3, 6, 9, 18, 27, 54

E. 1. Factor of 36 Factor of 24

$$36 = 1 \times 36$$

$$24 = 1 \times 24$$

$$36 = 2 \times 18$$

$$24 = 2 \times 12$$

$$36 = 3 \times 12$$

$$24 = 3 \times 8$$

$$36 = 4 \times 9$$

$$24 = 4 \times 6$$

$$36 = 6 \times 6$$

Common factors of 24 and 36 = 1, 2, 3, 4, 6, 12

Greatest Common factor of 24 and 36 = 12.

2. Factor of 40 Factor of 32

$$40 = 1 \times 40$$

$$32 = 1 \times 32$$

$$40 = 2 \times 20$$

$$32 = 2 \times 16$$

$$40 = 4 \times 10$$

$$32 = 4 \times 8$$

$$40 = 5 \times 8$$

Common factor of 32 and 40 = 1, 2, 4, 8

Greatest common factor of 32 and 40 = 8.

3. $60 = 1 \times 60$ $15 = 1 \times 15$

$$60 = 2 \times 30$$

$$15 = 3 \times 5$$

$$60 = 3 \times 20$$

$$60 = 4 \times 15$$

$$60 = 5 \times 12$$

$$60 = 6 \times 10$$

Common factor = 1, 3, 5, 15

Greatest common factor = 15

4. Factor of 25 Factor of 70

$$25 = 1 \times 25$$

$$70 = 1 \times 70$$

$$25 = 5 \times 5$$

$$70 = 2 \times 35$$

$$70 = 5 \times 14$$

$$70 = 7 \times 10$$

Common factor = 1, 5

Greatest common factor = 5

5. Factor of 12 Factor of 48

$$12 = 1 \times 12$$

$$48 = 1 \times 48$$

$$12 = 2 \times 6$$

$$48 = 2 \times 24$$

$$12 = 3 \times 4$$

$$48 = 4 \times 12$$

$$48 = 6 \times 8$$

Common factor = 1, 2, 4, 6, 12

Greatest common factor = 12.

F. Look at the objects in the boxes below. Write "P" if the number of objects in the box is a prime number and "C" if the number of objects is a composite number. See the example.

1. C

2. P

3. P

4. P

5. C

6. P

7. C

8. C

G. Find the prime factors of the numbers given below. See the example.

1. $2 \times 2 \times 2 \times 2$

2. $2 \times 2 \times 3 \times 3$

3. $2 \times 2 \times 3 \times 2 \times 2$

4. $7 \times 2 \times 2 \times 2$

5. $3 \times 3 \times 3 \times 3$

6. $3 \times 5 \times 5$

7. $2 \times 3 \times 3 \times 5$

8. $2 \times 2 \times 2 \times 2 \times 2 \times 3$

H. Solve the following questions :

1. $30 = 3 \times 2 \times 5$

$$45 = 3 \times 3 \times 5$$

The common prime factors are 3, 5

The H.C.F is 5

Therefore, 5 is H.C.F. or G.C.D. of 30 and 45

2. $36 = 3 \times 2 \times 2 \times 3$

$$42 = 7 \times 2 \times 3$$

The common prime factors are 2, 3

The H.C.F is 3

Therefore, 3 is H.C.F or G.C.D of 36 and 42

3. $120 = 2 \times 2 \times 3 \times 5 \times 2$

$$100 = 2 \times 5 \times 2 \times 5$$

The common prime factors are 2, 2, 5

The H.C.F is 5

Therefore, 5 is H.C.F or G.C.D of 100 and 120.

I. Find the least common multiple of number below. Follow the directions.

1. 9, 18, 27, 36, 45, 54

15, 30, 45, 60, 75, 90

Common multiple is 45, 90,..... The LCM is 45.

54 Mathematics Answer Key 1 to 5

5. $\frac{3}{4} \times 12 = 9$ 6. $\frac{2}{5} \times 15 = 6$

7. $\frac{2}{4} \times 16 = 8$ 8. $\frac{1}{3} \times 24 = 8$

D. 1. $\frac{2}{3} \times 12 = 8$ marbles 2. $\frac{3}{4} \times 8 = 6$ marbles

3. $\frac{2}{5} \times 10 = 4$ 4. $\frac{5}{9} \times 27 = 15$

5. $\frac{3}{5} \times 25 = 15$ 6. $\frac{2}{2} \times 13 = 13$

7. $\frac{1}{9} \times 18 = 2$ 8. $\frac{3}{7} \times 28 = 12$

9. $\frac{3}{4} \times 16 = 12$ 10. $\frac{7}{8} \times 32 = 28$

11. $24 \times \frac{1}{2} = 12$ gallons

12. $11 + 7 = 18$ Books.

E. 1. Total students in grade 4 = $15 + 6 + 14 + 10 = 45$

Fraction of the students in the school is in grade

$$4 = \frac{48}{482}$$

2. $\frac{25}{45}$

3. $\frac{21}{45}$

4. In Mr. Batra's class, $\frac{1}{4}$ of the kids have other siblings in the school.

than $\frac{1}{4} \times 24 = 6$

Number of kids do not sibling = $24 - 6 = 18$

Fraction of the students in Mr. Batra's class that do not have siblings in the same school

$$= \frac{18}{24} = \frac{3}{4}$$

5. Total students in miss Asha's class = $15 + 6 = 21$

$\frac{2}{3}$ of the students wear glasses = $\frac{2}{3} \times 21 = 14$

Yes, more student wear glasses.

6. Total students in the school = 482

Students allergic to seafood = $\frac{1}{35} \times 482 = \frac{482}{35}$

Students allergic to peanuts = $\frac{1}{15} \times 482 = \frac{482}{15}$

There are more students allergic to peanuts.

F. 1. $\frac{1}{6} \times \frac{4}{4} = \frac{4}{24}$ 2. $\frac{7}{9} = \frac{42}{63}$

3. $\frac{4}{8} = \frac{12}{24}$ 4. $\frac{18}{25} = \frac{126}{175}$

5. $\frac{2}{4} = \frac{12}{24}$ 6. $\frac{9}{12} = \frac{54}{72}$

7. $\frac{6}{7} = \frac{48}{56}$ 8. $\frac{5}{10} = \frac{45}{90}$

9. $\frac{1}{2} = \frac{5}{10}$ 10. $\frac{2}{3} = \frac{12}{18}$

11. $\frac{3}{5} = \frac{30}{50}$ 12. $\frac{4}{10} = \frac{40}{100}$

G. 1. $\frac{7}{11} + \frac{2}{11} = \frac{(7+2)}{11} = \frac{9}{11}$

2. $\frac{3}{7} + \frac{2}{7} = \frac{(3+2)}{7} = \frac{5}{7}$

3. $\frac{2}{9} + \frac{3}{9} = \frac{(2+3)}{9} = \frac{5}{9}$

4. $\frac{2}{7} + \frac{6}{7} = \frac{(2+6)}{7} = \frac{8}{7}$

5. $\frac{19}{20} + \frac{19}{20} = \frac{(19+19)}{20} = \frac{38}{20}$

6. $\frac{24}{25} + \frac{20}{25} = \frac{(24+20)}{25} = \frac{44}{25}$

H. 1. $\frac{10}{12} - \frac{7}{12} = \frac{(10-7)}{12} = \frac{3}{12} = \frac{1}{4}$

2. $\frac{3}{4} - \frac{2}{4} = \frac{(3-2)}{4} = \frac{1}{4}$

3. $\frac{4}{6} - \frac{3}{6} = \frac{(4-3)}{6} = \frac{1}{6}$

4. $\frac{6}{10} - \frac{5}{10} = \frac{(6-5)}{10} = \frac{1}{10}$

5. $\frac{7}{11} - \frac{2}{11} = \frac{(7-2)}{11} = \frac{5}{11}$
 6. $\frac{10}{12} - \frac{4}{12} = \frac{(10-4)}{12} = \frac{6}{12} = \frac{(6 \div 6)}{(12 \div 6)} = \frac{1}{2}$

Creative Approach

A. Multiple Choice Questions.

1. (c) $\frac{36}{53}$ 2. (c) $\frac{4}{2}$
 3. (a) $\frac{3}{10}$ 4. (d) $\frac{18}{81} = \frac{16 \div 9}{81 \div 9} = \frac{2}{9}$
 5. (d) $\frac{20}{35}$

C. 1. Total distance = 25 miles

Already driven = 11 miles

Fraction of the way have we driven

$$= \frac{11}{25} = \frac{11}{25}$$

2. Distance to Rajan's house = 45 miles

We have already driven = 14 miles

$$\begin{aligned} \text{left to be driven} &= 45 - 14 \\ &= 31 \text{ miles} \end{aligned}$$

Fraction of the way do we have left to go = $\frac{31}{45}$

- D. First day = $\frac{2}{11}$ Second day = $\frac{4}{11}$**

Third day = $\frac{3}{11}$

$$\begin{aligned} \text{Total journey cover in three day} &= \frac{2}{11} + \frac{4}{11} + \frac{3}{11} \\ &= \frac{(2+4+3)}{11} = \frac{9}{11} \end{aligned}$$

□□

CHAPTER-8
Decimals

A. Write the decimal and the fraction shown by each square.

1. $\frac{9}{10}; 0.9$ 2. $\frac{1}{10}; 0.1$

3. $\frac{4}{10}; 0.4$ 4. $\frac{6}{10}; 0.6$

5. $\frac{3}{10}; 0.3$ 6. $\frac{8}{10}; 0.8$

7. $\frac{0}{10}; 0.0$ 8. $\frac{2}{10}; 0.2$

B. What fraction of the shape has been colored ? Write the fraction and its equivalent decimal.

1. $\frac{2}{10} = 0.2$ 2. $\frac{5}{10} = 0.5$

3. $\frac{1}{12} = 0.8$ 4. $\frac{10}{12} = 0.8$

5. $\frac{4}{10} = 0.4$ 6. $\frac{9}{10} = 0.9$

C. Write the correct letter on the blank line next to each decimal.

1. r 2. o 3. u
 4. p 5. v 6. s
 7. m 8. x 9. n
 10. w 11. q 12. t

D. Solve the following :

1. 1.720 2. 0.795 3. 8.250
 4. 0.588 5. 0.293 6. 6.021
 7. 14.600 8. 9.700 9. 2.760
 10. 9.341 11. 0.913 12. 1.680

E. Count number of ONES and TENTHS and then put them together.

1. 1.3 2. 2.1 3. 3.3
 4. 1.4 5. 4.2 6. 2.4
 7. 1.2 8. 3.2 9. 5.4
 10. 56.4 11. 73.8 12. 49.6

F. Convert into fraction into decimal :

1. 0.7 2. 0.11 3. 0.4
 4. 0.80 5. 0.18 6. 0.3

G. Write each decimal in expanded form.

1. $6 \times 10 + 2 \times 1 + 8 \times \frac{1}{10} + 3 \times \frac{1}{100} + 7 \times \frac{1}{1000}$
 2. $9 \times 100 + 5 \times 10 + 0 \times 1 + 9 \times \frac{1}{10} + 5 \times \frac{1}{100}$
 3. $3 \times 100 + 4 \times 10 + 5 \times 1 + 1 \times \frac{1}{10} + 2 \times \frac{1}{100} + 4 \times \frac{1}{1000}$
 4. $4 \times 100 + 5 \times 10 + 3 \times 1 + 1 \times \frac{1}{10}$

56 Mathematics Answer Key 1 to 5

- H. 1.
$$\begin{array}{r} 200.0 \\ 10.0 \\ 6.0 \\ + 0.3 \\ \hline 216.3 \end{array}$$
2.
$$\begin{array}{r} 4.000 \\ 0.900 \\ + 0.008 \\ \hline 4.908 \end{array}$$
3.
$$\begin{array}{r} 900.00 \\ 30.00 \\ 7.000 \\ 0.20 \\ + 0.01 \\ \hline 937.21 \end{array}$$
4.
$$\begin{array}{r} 300.000 \\ 70.000 \\ 3.000 \\ 0.080 \\ + 0.009 \\ \hline 373.089 \end{array}$$
- I. 1. 648.215 – Six hundred forty eight and two hundred fifteen thousandths
2. 458.31 – Four hundred fifty eight and thirty one hundredths
3. 587.985 – five hundred eighty seven and nine hundred eighty five thousandths
4. 2.971 – Two and nine hundred seventy one thousandths
- J. 1. (i) $\frac{58}{100}; \frac{6}{10}$ not equivalent
- (ii) $\frac{50}{100}; \frac{5}{10}$ equivalent
2. (i) not equivalent
- (ii) equivalent
- (iii) not equivalent
3. (i) 0.20, $\frac{20}{100}$
- (ii) 0.40, $\frac{40}{100}$
- (iii) 0.320, $\frac{320}{1000}$
- (iv) 0.8, $\frac{8}{10}$
- (v) 0.6, $\frac{6}{10}$
- (vi) 0.1, $\frac{1}{10}$
- (vii) 0.5, $\frac{5}{10}$
- (viii) 0.3, $\frac{30}{100}$
- K. 1. (i) $9.088 < 9.88$
- (ii) $85.440 < 86.44$
- (iii) $6.3 > 6.248$
- (iv) $65.07 < 65.7$
- (v) $7.081 > 7.08$
- (vi) $0.2 < 2.784$
2. (i) 7.002, 7.048, 7.05, 7.2
- (ii) 2.37, 2.7, 3.01, 3.1
- (iii) 2.008, 2.08, 2.8, 2.88
- (iv) 6.05, 6.1261, 6.2, 6.28

3. (i) 1.13, 1.03, 0.13, 0.03
- (ii) 29.5, 29.25, 25.9, 25.29
- (iii) 6.6, 6.06, 6.0, 0.66
- (iv) 20.02, 20, 18.8, 18.08
4. 94.123
5. 10.01
6. (i) < (ii) <
- (iii) > (iv) >
- (v) > (vi) >
7. 0.96, 2.56, 2.88, 6.376, 9.02, 15.1
8. (i) 0.624, 3.15, 7
- (ii) 10.004, 10.26, 10.307
- (iii) 8.013, 8.13, 8.31
- L. 1. (i)
$$\begin{array}{r} 19.600 \\ 14.101 \\ + 24.200 \\ \hline 57.901 \end{array}$$
- (ii)
$$\begin{array}{r} 20.230 \\ 16.400 \\ + 24.013 \\ \hline 60.643 \end{array}$$
- (iii)
$$\begin{array}{r} 01.26 \\ 12.40 \\ + 16.24 \\ \hline 29.90 \end{array}$$
- (iv)
$$\begin{array}{r} 20.84 \\ - 16.42 \\ \hline 04.42 \end{array}$$
- (v)
$$\begin{array}{r} 28.444 \\ 19.230 \\ \hline 09.214 \end{array}$$
- (vi)
$$\begin{array}{r} 34.23 \\ - 20.00 \\ \hline 14.23 \end{array}$$
2. (i) 1 (ii) 0
- (iii) 1 (iv) 2
- (v) 1 (vi) 2
- M. 1. The chef took out butter = 54.8 g
- He took out butter more than he need = 6.9 g
- He did need butter = 54.8 g
- $$\begin{array}{r} 54.8 \\ - 6.9 \\ \hline 47.9 \end{array}$$
2. Total number of cups = 19.3
- Number of cups that are used
- $$= 2.9 + 1.2 + 5.1$$
- $$= 9.2$$
- Number of cups of flow are left
- $$= 19.3 - 9.2$$
- $$= 10.1$$
3. The smaller pot has more water.
4. The green container has less butter.

Creative Approach

A. Multiple Choice Questions.

1. (a) 0.0013 2. (b) 21.28
3. (a) 0.2 4. (c) 6.68
5. (d) 0.48

- C. 1.** Milk in a pot = 4.5 litres
 Chef aided water in a pot = 1.2 litres
 Total liquid in the pot = $4.5 + 1.2$
 = 5.7 litres

- 2.** Chef took out butter = 54.8 gm
 He took out butter more than he need = 6.9 gm
 He did need butter = $54.8 - 6.9$
 = 47.9 gm.

- D.** Total time taken to make each batch of dinner rolls
 = $0.7 \text{ h} + 1.6 \text{ h} + 0.4 \text{ h}$
 = 2.7 h.

E. Activity Zone :

- | | | |
|-------|-------|-------|
| 1. c | 2. g | 3. k |
| 4. d | 5. e | 6. i |
| 7. a | 8. j | 9. h |
| 10. b | 11. l | 12. f |

**CHAPTER-9
 Geometry**

A. Answer the following using the illustration above.

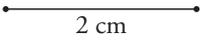
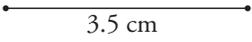
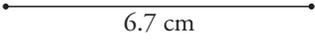
- | | |
|---|---|
| 1. \overleftrightarrow{AB} | 2. $\overleftrightarrow{LM}, \overleftrightarrow{PQ}$ |
| 3. $\overleftrightarrow{PQ}, \overleftrightarrow{LM}$ | 4. One |
| 5. Yes | 6. No |

B. Look at the pictures below. Label them whether they are lines or line segments.

- | | |
|-----------------|-----------------|
| 1. Line-segment | 2. Line |
| 3. Line | 4. Line-segment |

C. Using rule measure the length of each line segment.

- | | |
|------------|-----------|
| 1. 6.5 cm | 2. 8.2 cm |
| 3. 11.5 cm | |

- D. 1.** 
- 2.** 
- 3.** 

- E. 1.** 
- 2.** 
- 3.** 

F. Answer the following :

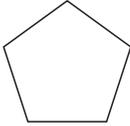
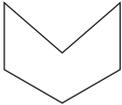
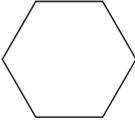
- | | |
|--------------------|-------------------|
| 1. (b) 110° | 2. (d) 75° |
| 3. 89° | 4. 63° |
| 5. 120° | 6. 67° |

G. For each angle, write down whether it is right, acute, obtuse, reflex of straight.

- | | |
|-------------|-----------|
| 1. Right | 2. Acute |
| 3. Obtuse | 4. Reflex |
| 5. Straight | 6. Reflex |

I. Decide of each figure is a polygon. If it is, write the type on the line.

- | | |
|----------------------|----------------------|
| 1. Regular, Pentagon | 2. Closed, Trapezium |
| 3. Regular, Star | 4. No |
| 5. No | 6. Regular, Decagon |
| 7. No | 8. Regular, Heptagon |

- J. 1.** 
- 2.** 
- 3.** 

K. Solve the following questions.

- | | |
|------|-------------------|
| 1. 2 | 2. 6 |
| 6.28 | 18.84 |
| 3. 5 | 4. $9 \times \pi$ |
| 15.7 | 28.26 |
| 5. 3 | 6. $4 \times \pi$ |
| 9.42 | 12.56 |

L. The following figure shows a circle with centre O and some line segments drawn in it. Classify the lines segments as radius, chord and diameter :

- | | |
|-----------|-------------|
| 1. Radius | 2. Radius |
| 3. Radius | 4. Diameter |
| 5. Chord | 6. Chord |

Creative Approach

A. Multiple Choice Questions.

- | | |
|--------|--------|
| 1. (a) | 2. (d) |
| 3. (d) | 4. (c) |

2. (a) $1 \text{ cm} = \frac{1}{100} \text{ m}$
 $370 \text{ cm} = \frac{370}{100} = 3.70 \text{ m}$
 (b) $1 \text{ cm} = \frac{1}{100} \text{ m}$
 $520 \text{ cm} = \frac{520}{100} = 5.20 \text{ m}$
 (c) $1 \text{ cm} = \frac{1}{100} \text{ m}$
 $3560 \text{ cm} = \frac{3560}{100} = 35.60 \text{ m}$

3. (a) $1 \text{ m} = 100 \text{ cm}$
 $9 \text{ m} = 9 \times 100 = 900 \text{ cm}$
 (b) $1 \text{ m} = 100 \text{ cm}$
 $17 \text{ m} = 17 \times 100 = 1700 \text{ cm}$
 (c) $1 \text{ m} = 100 \text{ cm}$
 $84 \text{ m} = 84 \times 100 = 8400 \text{ cm}$

4. (a) $1 \text{ cm} = 10 \text{ mm}$
 $7 \text{ cm} = 7 \times 10 = 70 \text{ mm}$
 (b) $1 \text{ cm} = 10 \text{ mm}$
 $23 \text{ cm} = 23 \times 10 = 230 \text{ mm}$
 (c) $1 \text{ cm} = 10 \text{ mm}$
 $65 \text{ cm} = 65 \times 10 = 650 \text{ mm}$

B. 1. $1 \text{ kg} = 1000 \text{ g}$
 (i) $32 \text{ kg} = 32 \times 1000 = 32000 \text{ g}$
 (ii) $0.31 \text{ kg} = 0.31 \times 1000 = 310 \text{ g}$
 (iii) $0.5 \text{ kg} = 0.5 \times 1000 = 500 \text{ g}$
 (iv) $0.35 \text{ kg} = 0.35 \times 1000 = 350 \text{ g}$
 (v) $8 \text{ kg} = 8 \times 1000 = 8000 \text{ g}$
 (vi) $3.2 \text{ kg} = 3.2 \times 1000 = 3200 \text{ g}$

2. $1 \text{ g} = \frac{1}{1000} \text{ kg}$
 (i) $2,00,000 \text{ g} = 200000 \times \frac{1}{1000} = 200 \text{ kg}$
 (ii) $800 \text{ g} = 800 \times \frac{1}{1000} = 0.8 \text{ kg}$
 (iii) $400000 \text{ g} = \frac{400000}{1000} = 400 \text{ kg}$
 (iv) $1000 \text{ g} = \frac{1000}{1000} = 1 \text{ kg}$
 (v) $40000 \text{ g} = \frac{40000}{1000} = 40 \text{ kg}$

(vi) $10000 \text{ g} = \frac{10000}{1000} = 10 \text{ kg}$

C. 1. (i) mL (ii) mL (iii) mL (iv) mL
 (v) L (vi) L (vii) L (viii) L
 3. (i) 5 (ii) 20 (iii) 10 (iv) 7
 4. $1 \text{ L} = 1000 \text{ mL}$

(i) $6\text{L}250 \text{ mL} = 6 \text{ L} + 250 \text{ mL}$
 $= (6 \times 1000) \text{ mL} + 250 \text{ mL}$
 $= 6000 \text{ mL} + 250 \text{ mL}$
 $= 6250 \text{ mL}$

(ii) $15 \text{ L } 40 \text{ mL} = 15 \text{ L} + 40 \text{ mL}$
 $= (15 \times 1000) \text{ mL} + 40 \text{ mL}$
 $= 15040 \text{ mL}$

(iii) $43 \text{ L } 3 \text{ mL} = 43 \text{ L} + 3 \text{ mL}$
 $= (43 \times 1000) \text{ mL} + 3 \text{ mL}$
 $= (43000 + 3) \text{ mL}$
 $= 43003 \text{ mL}$

5. (i) $3 \text{ kL } 6 \text{ hL } 4 \text{ daL } 5 \text{ L} = 3 \text{ kL} + 6 \text{ hL}$
 $+ 4 \text{ daL} + 5 \text{ L}$

$[\because 1 \text{ kL} = 1000 \text{ L}; 1 \text{ hL} = 100 \text{ L}; 1 \text{ daL} = 10 \text{ L}]$
 $= (3 \times 1000) \text{ L} + (6 \times 100) \text{ L} + (4 \times 10) \text{ L} + 5 \text{ L}$
 $= 3000 \text{ L} + 600 \text{ L} + 40 \text{ L} + 5 \text{ L}$
 $= 3645 \text{ L}$

(ii) $12 \text{ kL } 8 \text{ hL } 6 \text{ daL } 9 \text{ L} = 12 \text{ kL} + 8 \text{ hL}$
 $+ 6 \text{ daL} + 9 \text{ L}$

$= (12 \times 1000) \text{ L} + (8 \times 100) \text{ L} + (6 \times 10) \text{ L} + 9 \text{ L}$
 $[\because 1 \text{ kL} = 1000 \text{ L}; 1 \text{ hL} = 100 \text{ L}; 1 \text{ daL} = 10 \text{ L}]$
 $= 12000 \text{ L} + 800 \text{ L} + 60 \text{ L} + 9 \text{ L}$
 $= 12869 \text{ L}$

D. Solve the following :

(i) $38 \text{ kg } 969 \text{ g}$ (ii) $50 \text{ km } 949 \text{ g}$
 (iii) $11 \text{ L } 599 \text{ mL}$ (iv) $37 \text{ kg } 710 \text{ g}$
 (v) $15 \text{ km } 270 \text{ m}$ (vi) $5 \text{ L } 800 \text{ mL}$

E. (i) $\begin{array}{r} \text{km} \quad \text{g} \\ 45 \quad 456 \\ + 23 \quad 608 \\ \hline 69 \quad 064 \\ \Rightarrow 69 \text{ kg } 64 \text{ g} \end{array}$ (ii) $\begin{array}{r} \text{km} \quad \text{m} \quad \text{cm} \\ 123 \quad 34 \quad 103 \\ \quad \quad 89 \quad 405 \quad 222 \\ \hline 212 \quad 439 \quad 325 \\ \Rightarrow 212 \text{ km } 442 \text{ m } 25 \text{ cm} \end{array}$

(iii) $\begin{array}{r} \text{km} \quad \text{m} \\ 13 \quad 670 \\ 45 \quad 908 \\ + 29 \quad 770 \\ \hline 89 \quad 348 \\ \Rightarrow 89 \text{ km } 348 \text{ m} \end{array}$ (iv) $\begin{array}{r} \text{kL} \quad \text{L} \\ 45 \quad 43 \\ 18 \quad 390 \\ + 55 \quad 900 \\ \hline 119 \quad 333 \\ \Rightarrow 119 \text{ kL } 333 \text{ L} \end{array}$

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- E.** (i) $\begin{array}{r} \text{m} \quad \text{cm} \\ 678 \quad 10 \\ - 537 \quad 63 \\ \hline 140 \quad 47 \end{array}$ (ii) $\begin{array}{r} \text{km} \quad \text{m} \\ 42 \quad 900 \\ - 31 \quad 706 \\ \hline 11 \quad 194 \end{array}$
- (iii) $\begin{array}{r} \text{L} \quad \text{mL} \\ 42 \quad 789 \\ - 13 \quad 230 \\ \hline 29 \quad 559 \end{array}$ (iv) $\begin{array}{r} \text{kg} \quad \text{g} \quad \text{mg} \\ 76 \quad 104 \quad 66 \\ - 52 \quad 300 \quad 45 \\ \hline 23 \quad 804 \quad 21 \end{array}$
- G.** 1. Length of rope Meera has = 7 m
Length of rope Rite has = 9 m
Total length of both ropes = 7 m + 9 m = 16 m
2. Length of rope = 32 m
Length of cut off rope = 12 m
Length of the rope left = 32 m – 12 m = 20 m
3. Length of a bed = 225 cm
Breadth of a bed = 115 cm
The length exceed the breadth
= 225 cm – 115 cm = 110 cm
Sum of the length and breadth
= 225 cm + 115 cm
= 340 cm
= 3 m 40 cm
- H.** 1. A box containing 4 identical books weights = 5 kg
- The weight of the box = 600 g
Weight of 4 books = 5 kg – 600 g
= 4 kg 400 g = 4400 g
Weight of each books = $\frac{4400}{4}$ g
= 1100 g
= 1 kg 100 g
2. Total number of bananas = 10
Weight of each banana = 50 grams
∴ Weight of 10 bananas = 500 grams
= 0.5 kg
Cost of banana per kg = ₹ 6.50
Cost of 0.5 kg banana = ₹ 6.50 × 0.5
= ₹ 3.25
3. 1 L = 1000 mL
⇒ 3L = 3000 mL
∴ the quantity of juice Tina wants to buy equals 3000 mL.

Since the store sells only 250 mL Cartons, The number of such cartoon that Tina has to buy is given by $\frac{3000}{250} = 12$.

4. 1 kg = 1000 gram
5 kg = 5 × 1000 gram
= 5000 gram
- Sanya ate 175 g cherries on the way home,
Total gram of cherries saya left
= (5000 – 175) gram
= 4825 gram
5. 1 kg = 1000 gram
9 kg = 9000 gram
Weight of a pumpkin = 9 kg = 9000 gram
Weight of pumpkin piece that gave his friend = 500 gram
Total grams of pumpkin he has left
= (9000 – 500) gram
= 8500 gram
6. Length of each string = $\frac{5}{4}$ meters
[∵ 1 m = 100 cm]
= $\frac{5}{4} \times 100 = 125$ cm

Creative Approach

- A. Multiple Choice Questions.**
- (a) km
 - (d) multiplied by 1000
 - (c) 10 cm
 - (c) meters
 - (a) 22kg 350gm
- B.** 5kg + 5kg + 2 kg = 5kg + 5kg + 2kg
12kg = 12kg
⇒ 12 kg both side, it is balanced.
- C.** 1. quantity of oil is drum = 58L
quantity of sold oil = 24L5 mL
quantity of oil remained the drum now
= 58L – 24L 5 mL
= 33L 5 mL
2. Reena covered distance on foot = 12 km 160 m
Reena covered distance by bus = 25 km 610 m
Reena covered distance by car = 48 km

$$\begin{array}{r} \text{Total distance covered} = \text{km} \quad \text{m} \\ 12 \quad 160 \\ 25 \quad 610 \\ + 48 \quad 000 \\ \hline 85 \quad 770 \\ = 85 \text{ km } 770 \text{ m} \\ = 85770 \text{ m} \end{array}$$

- D. A public distribution shop has rice = 372 kg 375 g
Rice is bought for the shop = 75 kg 500g

$$\begin{array}{r} \text{Total rice now} = \text{kg} \quad \text{g} \\ 372 \quad 375 \\ + 75 \quad 500 \\ \hline 447 \quad 875 \\ = 447 \text{ kg } 875 \text{ g} \end{array}$$

□□

CHAPTER-12

Perimeter and Area

- A. 1. (i) Perimeter of the triangle = $(4 + 6 + 5)$ cm
= 15 cm
(ii) Perimeter of the triangle = $(6.5 + 7 + 8)$ cm
= 21.5 cm
(iii) Perimeter of the triangle = $(9 + 3 + 2)$ cm
= 14 cm
(iv) Perimeter of the triangle
= $(2.5 + 7.5 + 4)$ cm
= 14 cm
(v) Perimeter of the triangle
= $(15 + 15 + 20)$ cm
= 50 cm
(vi) Perimeter of the triangle
= $(13 + 13 + 13)$ cm
= 39 cm
2. Perimeter of square = $4 \times$ one side of square
(i) Perimeter of square = 4×6 cm
= 24 cm
(ii) Perimeter of square = 4×9 cm
= 36 cm
(iii) Perimeter of square = 4×4.5 cm
= 18 cm
(iv) Perimeter of square = 4×5.5
= 22 cm
3. Perimeter of square = $4 \times$ one side of square
(i) Perimeter of square = 4×15
= 60 m

- (ii) Perimeter of square = 4×12.4
= 49.6 cm
(iii) Perimeter of square = 4×0.25
= 1 m
(iv) Perimeter of square = 4×6
= 24 mm
4. Perimeter of rectangle = $2(\text{length} + \text{breadth})$
(i) Perimeter of rectangle = $2(5 + 3)$
= $2 \times 8 = 16$ cm
(ii) Perimeter of rectangle = $2(9 + 4)$
= 2×13
= 26 cm
(iii) Perimeter of rectangle = $2(7.5 + 4.5)$
= 2×12
= 24 cm
(iv) Perimeter of rectangle = $2(8.4 + 5.6)$
= 2×14
= 28 cm
5. (i) Perimeter of the figure
= $(3 + 2 + 3 + 2 + 3 + 4 + 9 + 4)$ cm
= 30 cm.
(ii) Perimeter of the figure
= $(4 + 3 + 2 + 2 + 3 + 5)$ cm
= 19 cm
6. (i) Perimeter of rectangle
= $2(\text{Length} + \text{Breadth})$
50 cm = $2(\text{Length} + 8)$
Length + 8 = $\frac{50}{2}$ cm
Length = $(25 - 8)$ cm
= 17 cm
(ii) Perimeter = AB + BC + CD + DA
78 cm = AB + 15 cm + 4 cm + 28 cm
AB = 78 cm - 47 cm
AB = 31 cm.
7. Length of Lace roll = 50 m
Length of a Carpet = 1 m 50 cm
= 100 cm + 50 cm
= 150 cm
Breadth of a carpet = 50 cm
So the length of lace required for one
Carpet = $(150 + 50 + 150 + 50)$ cm
= 400 cm.
 \Rightarrow Lace will be required for 5 such carpet
= 5×400 cm

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$$= 2000 \text{ cm} = 20 \text{ m}$$

$$\Rightarrow \text{Lace will be left over} = (50 - 20) \text{ m}$$

$$= 30 \text{ m.}$$

8. Park sides = 90m, 120m, 150m
 distance cover in one round of the park
 $= (90 + 120 + 150) \text{ m}$
 $= 360 \text{ m}$
 distance cover is 4 such round of the park
 $= 4 \times 360 \text{ m}$
 $= 1440 \text{ m}$

9. A garden sides = 34m, 28m, 39m, 29m
 Total length of garden = $(34 + 28 + 39 + 29) \text{ m}$
 $= 130 \text{ m}$
 Cost of fencing per meter = ₹ 2
 Cost of fencing of 130 m = ₹ 2 × 130
 $= ₹ 260$

10. Length of the field = 40 m
 Breadth of the field = 20 m
 Length of one round = $(40 + 20 + 40 + 20) \text{ m}$
 $= 120 \text{ m}$
 Athlete run around a field = 600 m
 Rounds did the athelete take around the field
 $= \frac{600}{120} = 5 \text{ round}$

- B.**
1. Length = 24 cm
 Breadth = 13 cm
 Area of a rectangle = $24 \times 13 \text{ sq.cm}$
 $= 312 \text{ sq.cm}$
 2. A side = 40 cm.
 Area of a square = side × side
 $= 40 \times 40 \text{ sq. cm}$
 $= 1600 \text{ sq.cm}$
 3. A side = 21 m
 Area of a square = side × side
 $= 21 \times 21 \text{ sq.m.}$
 $= 441 \text{ sq.m.}$
 4. Length = 100 m
 Breadth = 76 m
 Area of a rectangular field = Length × Breadth
 $= 100 \times 76 \text{ sq.m}$
 $= 7600 \text{ sq.m}$
 5. Side = 16 cm
 Area of a square patch of grass = side × side
 $= 16 \times 16 \text{ sq.cm}$
 $= 256 \text{ sq.cm}$

6. (a) Length = 3 m 20 cm
 $= 3.20 \text{ m}$
 Breadth = 80 cm
 $= 0.80 \text{ m}$
 Area of rectangle = $3.20 \times 0.80 \text{ sq.m}$
 $= 2.56 \text{ sq.m}$

(b) Length = 8 m
 Breadth = 2 m 50 cm
 $= 2.50 \text{ m}$
 Area of rectangle = $8 \times 2.50 \text{ sq.m}$
 $= 20 \text{ sq.m}$

7. Area = Length × Breadth
 $150 \text{ sq.m} = \text{Length} \times 12 \text{ m}$
 Length = $\frac{150}{12} \text{ m}$
 $= 12.5 \text{ m}$

8. Area = Length × Breadth
 $5000 \text{ sq.m} = 250 \text{ m} \times \text{Breadth}$
 Breadth = $\frac{5000}{250} \text{ m}$

Breadth = 20 m
 9. Side of board = 44 cm
 Area of square board = Side × Side
 $= 44 \times 44 \text{ sq.m}$
 $= 1936 \text{ sq.m}$

Cost of painting per sq.m = ₹ 7
 Cost of painting for 1936 sq.m = ₹ 7 × 1936
 $= ₹ 13552$

10. Length of hall = 52 m
 Wide = 18 m
 Area of hall = $52 \times 10 \text{ sq.m}$
 $= 936 \text{ sq.m}$

Labour charge of per sq.m = ₹ 8
 Labour charge for 936 sq.m = ₹ 8 × 936
 $= ₹ 7488$

11. (a) This figure has 8 square box
 Area of each square box = $1 \times 1 = 1 \text{ sq.m}$
 Area of 8 square box = 8×1
 $= 8 \text{ sq.m.}$

(b) This figure has 14 square box
 Area of each square box = $1 \times 1 \text{ sq. cm}$
 $= 1 \text{ sq. cm}$
 Area of 14 square box = 14×1
 $= 14 \text{ sq. cm}$

12. (a) Area of given shape = $(8 \times 1) + (2 \times 1)$
 $= 10$ sq. cm
 (b) Area of given shape = $(5 \times 1) + (3 \times 1.5)$
 $= 5 + 4.5 = 9.5$ sq. cm.

Creative Approach

A. Multiple Choice Questions.

1. (a) square unit 2. (b) 30m
 3. (c) 18 cm 4. (a) 20 cm²
 5. (b) 40 cm

- B. 1.** Perimeter = $(10 + 10 + 17)$ cm
 $= 37$ cm
2. Perimeter = $(6 + 1 + 2 + 4 + 4 + 5)$ cm
 $= 22$ cm

- C. 1.** Side of a mirror = 30 cm.
 Total length of the mirror frame
 $= (30 + 30 + 30 + 30)$ cm
 $= 120$ cm.
2. Playground length = 260 m
 Wide = 225 m
 Area of the field = 260×225 sq.m
 $= 58500$ sq.m

- D.** Length = 96 m
 Breadth = 64 m
 Length of the wire needed to fence = $2(96 + 64)$ m
 $= 320$ m
 Fencing cost per meter = ₹ 4
 Fencing cost for 320 m = ₹ 4×320
 $= ₹ 1280.$



CHAPTER-13
Time

A. Write the correct time underneath each clock.

1. 1:11 2. 3:47 3. 5:47
 4. 10:04 5. 8:24 6. 2:28
 7. 7:56 8. 5:08 9. 11:36
 10. 4:49 11. 12:22 12. 9:24

B. Fill in the blanks using a.m. or p.m. in the given sentences.

1. PM 2. AM 3. PM
 4. AM 5. PM 6. PM

C. Write the following times, using a.m. or p.m. :

1. AM 2. PM 3. PM
 4. PM 5. PM 6. PM

D. Write these afternoon times in figures affixing a.m./p.m.:

1. 1:30 PM 2. 2:20 PM
 3. 3:45 PM 4. 5:35 PM

E. Solve the following questions in your notebook :

1. (i) 576 hours = $(576 \div 24)$ days
 $= 24$ days 0 hour
 (ii) 4 hours 50 minutes
 $= 4 \times 60$ minutes + 50 minutes
 $= 240$ minutes + 50 minutes
 $= 290$ minutes.
 (iii) 5 minutes 30 seconds
 $= 5 \times 60$ seconds + 30 seconds
 $= 300$ seconds + 30 seconds
 $= 330$ seconds
 (iv) 5 hours 40 minutes
 $= 5 \times 60$ minutes + 40 minutes
 $= 300$ seconds + 40 minutes
 $= 340$ minutes
 (v) 4 days 16 hours
 $= 4 \times 24$ hours + 16 hours
 $= 96$ hours + 16 hours
 $= 112$ hours
 (vi) 5 months 15 days = 5×30 days + 15 days
 $= 150$ days + 15 days
 $= 165$ days
 (vii) 6 weeks 5 days = 6×7 days + 5 days
 $= 42$ days + 5 days
 $= 47$ days
 (viii) 840 days = $840 \times \frac{1}{365}$ years
 $= 2$ years 110 days
 $= 2$ years, $\frac{110}{30}$ months
 $= 2$ years, 3 months, 20 days
 (ix) 6 years 9 months
 $= 6 \times 12$ months + 9 months
 $= 72$ months + 9 months
 $= 81$ months
 (x) 1 year 6 months
 $= 1 \times 12$ months + 6 months
 $= 18$ months
 $= 18 \times 30$ days
 $= 540$ days
 \Rightarrow (a) $= 540 \times 24$ hours
 $= 12960$ hours

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- \Rightarrow (b) $= 12960 \times 60$ minutes
 $= 777600$ minutes
 \Rightarrow (c) $= 777600 \times 60$ seconds
 $= 46656000$ seconds
 (xi) 600 seconds $= 600 \times \frac{1}{60}$ minutes
 $= 10$ minutes 0 second
 (xii) 9750 seconds $= 9750 \times \frac{1}{60} \times \frac{1}{60}$ hours
 $= 2$ hour 255 seconds
 $= 2$ hour $255 \times \frac{1}{60}$ minutes
 $= 2$ hour 4 minutes 15 seconds
2. (i) 6 hours 40 minutes. $+ 3$ hours 30 minutes
 $= 10$ hours 10 minutes
 (ii) 14 minutes 35 seconds
 $+ 17$ minutes 25 seconds
 $= 32$ minutes
 (iii) 8 years 9 months $+ 6$ years 3 months
 $= 15$ years.
 (iv) 9 months 7 days $+ 10$ months 23 days
 $= 20$ months
3. (i) minutes (ii) hours
 (iii) seconds (iv) 600
 (v) 1800 (vi) 180
 (vii) 48
4. (i) 9 hours $= 9 \times 60$ minutes
 $= 540$ minutes
 (ii) 7 hours 35 minutes
 $= 7 \times 60$ minutes $+ 35$ minutes
 $= 420$ minutes $+ 35$ minutes
 $= 455$ minutes
 (iii) 18 hours 20 minutes
 $= 8 \times 60$ minutes $+ 20$ minutes
 $= 480$ minutes $+ 20$ minutes
 $= 500$ minutes
 (iv) 3 hour 15 minutes
 $= 3 \times 60$ minutes $+ 15$ minutes
 $= 180$ minutes $+ 15$ minutes
 $= 195$ minutes
 (v) 5 hours 17 minutes
 $= 5 \times 60$ minutes $+ 17$ minutes
 $= 300$ minutes $+ 17$ minutes
 $= 317$ minutes
 (vi) 9 hours 29 minutes
- $= 9 \times 60$ minute $+ 29$ minimises
 $= 540$ minutes $+ 29$ minute
 $= 569$ minutes
 (vii) 280 seconds $= 280 \times \frac{1}{60}$ minutes
 $= 4$ minutes 40 seconds
 (viii) 790 seconds $= 790 \times \frac{1}{60}$ minutes
 $= 13$ minutes 10 seconds
 (ix) 980 seconds $= 980 \times \frac{1}{60}$ minutes
 $= 16$ minutes 20 seconds
 (x) 405 seconds $= 405 \times \frac{1}{60}$ minutes
 $= 6$ minutes 45 seconds
5. (i) 150 minutes $= 150 \times \frac{1}{60}$ hours
 $= 2$ hours 30 minutes
 (ii) 210 minutes $= 210 \times \frac{1}{60}$ hours
 $= 3$ hours 30 minutes
 (iii) 520 minutes $= 520 \times \frac{1}{60}$ hours
 $= 8$ hours 40 minutes
 (iv) 317 minutes $= 317 \times \frac{1}{60}$ hours
 $= 5$ hours 17 minutes
 (v) 458 minutes $= 458 \times \frac{1}{60}$ hours
 $= 7$ hours 38 minutes
 (vi) 827 minutes $= 827 \times \frac{1}{60}$ hours
 $= 13$ hours 47 minutes
 (vii) 2700 seconds $= 2700 \times \frac{1}{60}$ minutes
 $= 45$ minuter
 $= 0$ hour 45 minutes
 (viii) 5340 seconds $= 5340 \times \frac{1}{60}$ minutes
 $= 89$ minutes
 $= 89 \times \frac{1}{60}$ hours
 $= 1$ hour 29 minutes
 (ix) 12720 minutes $= 12720 \times \frac{1}{60}$ minutes

- = 212 minutes
 = $212 \times \frac{1}{60}$ hours
 = 3 hours 32 minutes
- (x) 217 minutes = $217 \times \frac{1}{60}$ hours
 = 3 hours 37 minutes
- F.** 1. (a) 6 : 30 P.M. = 1830 hours
 (b) 1 : 25 A.M. = 0125 hours
 (c) 2 : 25 P.M. = 1425 hours
 (d) 2 : 38 A.M. = 0238 hours
 (e) 11 : 50 A.M. = 1150 hours
 (f) 12 : 30 P.M. = 1230 hours
 (g) 12 : 55 A.M. = 0055 hours
 (h) 4 : 25 P.M. = 1625 hours
2. (a) 1045 hours = 10 : 45 A.M.
 (b) 2328 hours = 11 : 28 P.M.
 (c) 0632 hours = 6 : 32 A.M.
 (d) 0155 hours = 1 : 55 A.M.
 (e) 2120 hours = 9 : 20 P.M.
 (f) 0035 hours = 12 : 35 A.M.
 (g) 1250 hours = 12 : 50 P.M.
 (h) 1840 hours = 6 : 40 P.M.
- G.** 1. (a)

Hours	Minutes
2	20
+ 3	15
5	35

 $\Rightarrow 5 \text{ h } 35 \text{ min.}$
- (b)

Hours	Minutes
1	45
+ 7	18
8	63

 $\Rightarrow 9 \text{ h } 3 \text{ min.}$
2. (a)

Hours	Minutes
5	40
- 3	15
2	25

 $\Rightarrow 2 \text{ h } 25 \text{ min.}$
- (b)

Hours	Minutes
9	10
- 6	25
2	45

 $\Rightarrow 2 \text{ h } 45 \text{ min.}$
3. (a) 9 : 30 A.M. (b) 11 : 00 A.M.
 (c) 12 : 25 A.M. (d) 3 : 40 A.M.
4. Mother went for shopping at = 10 : 10 A.M.

- She returned at = 11 : 55 A.M.
 Time taken for shopping
 = (11 : 55 - 10 : 10) A.M.
 = 1 hour 45 minutes
5. Piyush went out at = 3 : 25 P.M.
 He came back at = 6 : 55 P.M.
 Time was he not at home = (6 : 55 - 3 : 25)
 = 3 hours 30 minutes
6. Train catch time = 7 : 45 A.M.
 Train taken time to reach office
 = 2 hours 15 minutes
 Time will I be my office = 10 : 00 A.M.
7. A bus departs for, Haridwar at = 1542 hours
 = 3 : 42 P.M.
 Bus reached Haridwar at = 2128 hours
 = 9 : 28 P.M.
 Time taken by bus to reach Haridwar = 5 hours
 46 minutes
8. Office timing = 9 A.M. to 6 P.M.
 Time spend in office = 9 hours
9. Train was scheduled to arrive at = 5 : 10 P.M.
 Train was delayed = 25 minutes
 Time was it when the train arrived = 5 : 35 P.M.
10. The first bus is scheduled to depart
 = 10 : 35 A.M.
 \therefore The bus departs the bus terminal every 2 hours
 Time when the second bus depart
 = 12 : 35 P.M.
11. The train left the terminal = 11 : 20 A.M.
 The train arrived at its destination = 2 : 40 P.M.
 Time taken by train = 3 hours 20 minutes
12. Yes, he board the flight.
13. A bus is scheduled to leave the terminal
 = 9 : 45 P.M.
 Bus is travel to another city, time taken
 = 5 hour 45 minute
 \therefore Bus left the terminal 25 minute later
 \therefore The bus arrive at the other city = 3 : 55 A.M.
- H.** 1. (a) $2012 \div 4 = 503$
 likely a leap year (number is evenly divisible
 by 4)
- (b) $2015 \div 4 = 503.75$
 not a leap year
 (number is not evenly divisible by 4)
- (c) $2022 \div 4 = 505.5$
 not a leap year
 (number is not evenly divisible by 4)

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- (d) $2024 \div 4 = 506$
likely a leap year
(number is evenly divisible by 4)
2. (a) 14th April to 30th April = $(30 - 14)$ days
= 16 days
1st July to 13th July = 13 days
May and June have days = 61 days
Total number of days
= $(16 + 13)$ days + 61 days
= 90 days
- (b) 22nd May to 31st May = $(31 - 22)$ days
= 9 days
 \Rightarrow June has 30 days
 \Rightarrow July has 31 days
 \Rightarrow 1st August to 14th August = 14 days
Total number of days
= $(9 + 30 + 31 + 14)$ days
= 84 days
- (c) 23rd March to 31st March = $(31 - 23)$ days
= 8 days
 \Rightarrow April has 30 days
 \Rightarrow May has 31 days
1st June to 15th June = 15 days
Total number of days
= $(8 + 30 + 31 + 15)$ days
= 84 days
- (d) 12th December to 31st December
= $(31 - 12)$ days
= 19 days
1st January to 30th January = 30 days
Total number of days = $(30 + 19)$ days
= 49 days
3. (a) 8th May to 31st May = $(31 - 7)$ days
= 24 days
1st June to 9th June = 9 days
Total number of days = $(24 + 9)$ days
= 33 days
- (b) 21st July to 31st July = $(31 - 20)$ days
= 11 days
 \Rightarrow August has 31 days
1st September to 12th September = 12 days
Total number of days = $(11 + 31 + 12)$ days
= 54 days
- (c) 20th September to 30th September
= $(30 - 19) = 11$ days
 \Rightarrow October has 31 days.
 \Rightarrow November has 30 days.
1st December to 3rd December = 3 days

- Total number of days
= $(11 + 31 + 30 + 3)$ days
= 75 days.
- (d) 17th April to 30th April = $(30 - 16)$ days
= 14 days
 \Rightarrow May has 31 days
 \Rightarrow June has 30 days
1st July to 15th July = 15 days
Total number of days
= $(14 + 31 + 30 + 15)$ days
= 90 days
4. September has 30 days.
Leave days = 15 days
Date will he join = 30th September
5. 15th August to 31st August = $(31 - 14) = 17$ days
1st September to 20th September = 20 days
Total number of days = $(17 + 20)$ days
= 37 days
6. 17th June to 30th June = $(30 - 16)$
= 14 days
1st July to 10th July = 10 days
Total number of days = $(14 + 10)$
= 24 days
7. Joining date = 10th May
Course duration = 25 days
Course complete date = 3 June
8. Circus finished on = 15th August
Circus time period = 20 days
Circus begin date = 27 July.
- Creative Approach**
- A. Multiple Choice Questions.**
1. (c) 13 weeks 4 days 2. (b) 24×60
3. (d) 3600 4. (b) 6 hours
5. (a) 8 : 30 am
- C.**
1. A bus depart from Haridwar = 1542 hours
= 3 : 42 P.M.
Bus reached Haridway = 2120 hours
= 9 : 28 P.M.
Time taken by bus to reach Haridwar
= 5 hours 46 minutes
2. Radha completes a work = 6 days
Radha completes in 3 days = $\frac{1}{2}$ work.
- D. Source Based Questions :**
3. 14 October
4. Thursday
5. 5

E. Activity Zone :

- (i) 8 : 40 (ii) 7 : 05



CHAPTER-14
Money and Unitary Method

- A. 1. (a) ₹ 17.90
 (b) ₹ 200.08
 (c) ₹ 11.05
 (d) ₹ 0.06
2. (a) Seventy six rupees and fifty paise
 (b) One hundred sixty five rupees and twenty five paise
 (c) One thousand eight rupees and eighty five paise
 (d) One rupees and eight paise
3. (a) ₹ 85.05 = 8505 paise
 (b) ₹ 5 = 500 paise
 (c) ₹ 10.20 = 1020 paise
 (d) ₹ 29.85 = 2985 paise
4. (a) 39 rupees 8 paise
 = (39 × 100) paise + 8 paise
 = (3900 + 8) paise
 = 3908 paise
 (b) 62 rupees = (62 × 100) paise
 = 6200 paise
 (c) 3 rupees 55 paise
 = (3 × 100) paise + 55 paise
 = (300 + 55) paise
 = 355 paise
5. (a) 506 paise = $506 \times \frac{1}{100}$ rupees
 = 5 rupees 6 paise
 (b) 1355 paise = $1355 \times \frac{1}{100}$ rupees
 = 13 rupees 55 paise
 (c) 4789 paise = $4789 \times \frac{1}{100}$ rupees
 = 47 rupees. 89 paise

- B. 1. (i) ₹ P (ii) ₹ P
 8 25 18 40
 + 4 40 + 20 25

 12 65 38 65

 ⇒ ₹ 12.65 ⇒ ₹ 38.65

- (iii) ₹ P (iv) ₹ P
 112 45 58 70
 + 235 45 + 21 25

 347 90 79 95

 ⇒ ₹ 347.90 ⇒ ₹ 79.95

2. (i) ₹ P (ii) ₹ P
 75 85 127 35
 - 15 25 - 27 20

 60 60 100 15

 ⇒ ₹ 60.60 ⇒ ₹ 100.15

- (iii) ₹ P (iv) ₹ P
 239 65 460 95
 - 112 25 - 21 45

 127 40 439 50

 ⇒ ₹ 127.40 ⇒ ₹ 439.50

3. Cost of pencil box = ₹ 25
 Cost of note book = ₹ 15
 Total cost for both = ₹ 25 + ₹ 15 = ₹ 40
4. Price of a bag = ₹ 55
 Price of a purse = ₹ 75
 Total price for both = ₹ 55 + ₹ 75 = ₹ 130
5. Soni has rupees = ₹ 100
 Cost of a book = ₹ 65
 Money is left = ₹ 100 - ₹ 65 = ₹ 35
6. Cost of a pen = ₹ 15
 Money he gives the shopkeeper = ₹ 50
 Money return from shopkeeper
 = ₹ 50 - ₹ 15 = ₹ 35

Creative Approach

A. Multiple Choice Questions.

1. (a) rupees
 2. (d) 400
 3. (b) 200
 4. (b) 20
 5. (b) Rs 12.25

B. Picture Based Questions :

- 100 rupees note
 500 rupees note

- C. 1. The amount of one sack of sugar = ₹ 1276.75
 The amount of 5 sack of sugar
 = ₹ 1276.75 × 5

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- $= ₹ 6383.75$
2. Cost of a pen = ₹ 35.35
 Cost of 32 such pens = ₹ 35.35 × 32
 = ₹ 1131.20
- D. My father has money = ₹ 600
 Fruits worth = ₹ 122.35
 Vegetables worth = ₹ 189.78
 Groceries worth = ₹ 135.75
 Chocolates worth = ₹ 18.50
 Money left with, my father
 = ₹ 600 - (₹ 122.35 + ₹ 189.78
 + ₹ 135.75 + ₹ 18.50)
 = ₹ 600 - ₹ 466.38
 = ₹ 133.62
- E. 1. Total cost of all books
 = ₹ 123.80 + 139.50 + ₹ 113.40
 + ₹ 115.75 + ₹ 153.00
 = ₹ 645.45
2. 113 rupees 40 paise
 3. Maths, by ₹ 2.35
 4. Social Science



CHAPTER-15
Data Handling

- A. 1. (i) day toys sold
 Sunday = 50
 Monday = 70
 Tuesday = 40
 Wednesday = 90
 Thursday = 140
 Friday = 80
 Saturday = 200
- (ii) Toys sold during the week
 = 50 + 70 + 40 + 90 + 140 + 80 + 200
 = 670 Toys
- (iii) Saturday
 (iv) Tuesday
 (v) 200 - 40 = 160
2. (i) day Persons
 Sunday 600
 Monday 800
 Tuesday 500

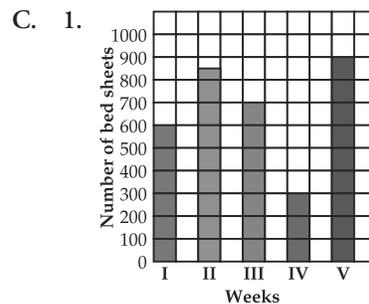
Wednesday	400
Thursday	1000
Friday	900
Saturday	700

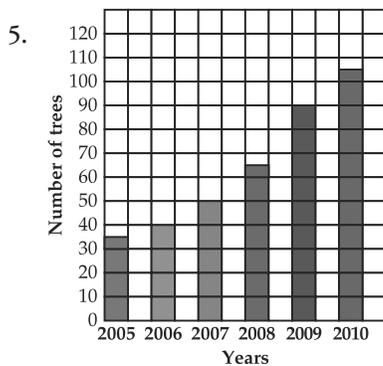
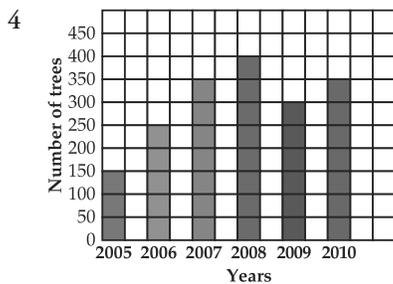
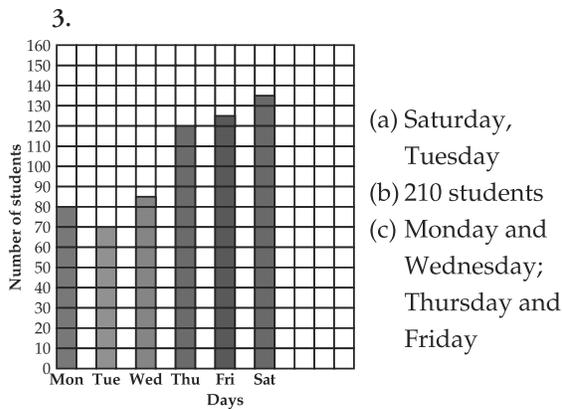
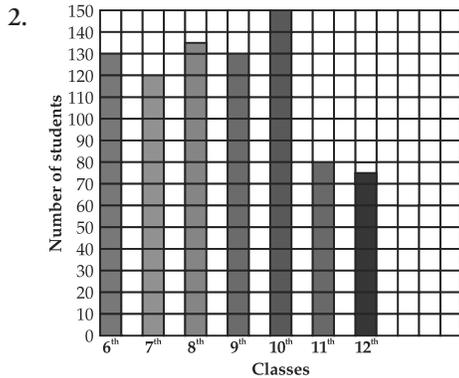
- (ii) Thursday
 (iii) Total travelers travelled during the week
 = 600 + 800 + 500 + 400 + 1000
 + 900 + 700 = 4900
- (iv) Wednesday
 (v) 1000 - 400 = 600
3. (i) Total books in the library
 = 100 + 500 + 200 + 300
 = 1100
- (ii) Maximum (Maths books)
 Minimum (English books)
4. (i) (a) Thursday
 (b) Friday
- (ii) day Letters collected

Monday	50
Tuesday	40
Wednesday	20
Thursday	60
Friday	10
Saturday	40
- (iii) 60 - 10 = 50
 (iv) 50 - 40 = 10

B. The local newspaper keeps track of how many subscriptions are sold in each month. Use the graph below to answer the questions.

1. 950 Newspaper
 2. 400 - 200 = 200 Newspaper
 3. No, more subscription sold in June, Sept., Oct.
 4. 650 Newspaper





- D. 1. 6 students
2. 18 students

Creative Approach

A. Multiple Choice Questions.

1. (c) a.m 2. (d) 44
3. (b) 7 : 30 a.m. 4. (b) 6
5. (a) 6 : 00 a.m

B. Picture Based Questions :

- (a) 5 children
(b) Potato and Lady Finger
(c) Brinjal

C. Skill Based Questions :

2. (a) Maths
(b) Hindi and Social Science

D. Source Based Questions :

1. 5 2. 25
3. Pink 4. Red

Test Yourself

1. (a) 64506 (b) 49 822
2. (a) Two lakh sixty five thousand three hundred forty one
(b) Eighteen thousand six hundred seventy nine
(c) Two lakh sixty seven seven thousand eight hundred ninety.
(d) Three lakh twenty five thousand one hundred seventy three
3. (a) 25 (b) 37
(c) 19 (d) 47
4. 66440
5. 300078
6. (a) 45029, 45092, 4529, 50294, 386254
(b) 986325, 540226, 25400, 8932, 6680
7. Surbhi, 396 m
9. Capacity of each bottle = 2 L

$$= 2000 \text{ mL}$$

$$\begin{aligned} \text{More soft drinks added to fill the bottle 1}^{\text{st}} \\ &= 2000 \text{ mL} - 850 \text{ mL} \\ &= 1150 \end{aligned}$$

$$\begin{aligned} \text{More soft drink added to fill the bottle 2}^{\text{nd}} \\ &= 2000 \text{ mL} - 1675 \text{ mL} \\ &= 325 \text{ mL} \end{aligned}$$

10. (a) 8000 (b) 0
11. (a) $75893 - 70000 + 5000 + 800 + 90 + 3$
(b) $20785 - 20000 + 700 + 80 + 5$
(c) $389647 - 300000 + 80000 + 9000 + 600 + 40 + 7$
(d) $450708 - 400000 + 50000 + 700 + 8$

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12. (a) 842567 (b) 960301
13. (a) 3, 6, 12, 24, 48, 96, 192
(b) 4, 7, 10, 13, 16, 19, 22
14. (a) $\frac{3}{16} + \frac{7}{16}$
 $= \frac{7+3}{16} = \frac{10}{16}$
- (b) $\frac{9}{17} - \frac{4}{17}$
 $= \frac{9-4}{17} = \frac{5}{17}$
- (c) $\frac{7}{9} + 1\frac{2}{9} + \frac{1}{9}$
 $= \frac{7}{9} + \frac{11}{9} + \frac{1}{9}$
 $= \frac{7+11+1}{9} = \frac{19}{9}$ or $2\frac{1}{9}$
- (d) $3\frac{1}{8} - 2\frac{3}{8}$
 $= \frac{25}{8} - \frac{19}{8}$
 $= \frac{25-19}{8} = \frac{6}{8}$
15. $3 = 3^1$
 $4 = 2 \times 2 = 2^2$
 $6 = 2 \times 3 = 2^1 \times 3^1$
 $18 = 2 \times 3 \times 3 = 2^1 \times 3^2$
 LCM of 3, 4, 6, 18 = $2^2 \times 3^2$
 $= 2 \times 2 \times 3 \times 3$
 $= 36$
 HCF of 3, 4, 6, 18 = 1
16. Cost of 5 pencils = ₹ 125
 Cost of 1 pencils = $\frac{125}{5} = ₹ 25$
 Cost of 15 pencils = ₹ 25 × 15
 $= ₹ 375$
17. (a) Yes (b) No (c) Yes (d) No
18. Price of Potatoes = $3 \times ₹ 30 = ₹ 90$
 Price of Onions = $2 \times ₹ 45 = ₹ 90$
 Price of Peas = $1 \times ₹ 80 = ₹ 80$

- Price of Carrots = $5 \times ₹ 40 = ₹ 200$
 Price of Cauliflower = $2 \times ₹ 35 = ₹ 70$
 Total price of vegetables
 $= ₹ 90 + ₹ 90 + ₹ 80 + ₹ 200 + 70$
 $= ₹ 530$
- Total money she gave to shopkeeper
 $= ₹ 500 + ₹ 200$
 $= ₹ 700$
- Money she get = ₹ 700 – ₹ 530 = ₹ 170
19. (i) 4 : 45 PM
(ii) 12 : 00 AM
20. (a) Perimeter of A = $3 + 4 + 3 + 4$
 $= 14$ units
 (b) Perimeter of B = $4 + 2 + 2 + 2 + 2 + 4$
 $= 16$ units
 (c) Area of A = 3×4
 $= 12$ sq. unit
 (d) Area of B = 12 sq. unit
21. (a) $40 - 30 = 10$
 (b) Price of a ice-cream cake = ₹ 12
 Price of 25 such ice-cream cake
 $= ₹ 12 \times 25$
 $= ₹ 300$
 (c) Cost of a cheese cake = ₹ 8
 Cost of 35 cheese cake
 $= ₹ 8 \times 35$
 $= ₹ 280$
 Cost of a log cake = ₹ 3
 Cost for 30 log cake = ₹ 3 × 30
 $= ₹ 90$
 Difference = ₹ 280 – ₹ 90
 $= ₹ 190$
 (d) Total number of cakes = $40 + 30 + 25 + 35$
 $= 130$
22. (a) Choices of sport by number of students
 (b) 7
 (c) Cricket
 (d) Total students were surveyed
 $= 6 + 8 + 10 + 7 + 7$
 $= 38$ students.



5. $3,00,000 + 50,000 + 0 + 800 + \underline{\hspace{1cm}} + 4 = 3,50,864$
 $\Rightarrow 3,00,000 + 50,000 + 0 + 800 + 60 + 4 = 3,50,864$
Hence, $4 + 60 + 800 + 0 + 50,000 + 3,00,000 = 3,50,864$
6. $\underline{\hspace{1cm}} + 50,000 + 0 + 300 + 0 + 4 = 2,50,304$
 $\Rightarrow 2,00,000 + 50,000 + 0 + 300 + 0 + 4 = 2,50,304$
Hence, $0 + 300 + 0 + 4 + 50,000 + 2,00,000 = 2,50,304$
7. $6,00,000 + 70,000 + 5,000 + \underline{\hspace{1cm}} + 60 + 3 = 6,75,863$
 $\Rightarrow 6,00,000 + 70,000 + 5,000 + 800 + 60 + 3 = 6,75,863$
Hence, $3 + 60 + 800 + 5,000 + 70,000 + 6,00,000 = 6,75,863$
8. $\underline{\hspace{1cm}} + 90,000 + 1,000 + 300 + 20 + 3 = 9,91,323$
 $\Rightarrow 9,00,000 + 90,000 + 1,000 + 300 + 20 + 3 = 9,91,323$
Hence, $3 + 20 + 300 + 1,000 + 90,000 + 9,00,000 = 9,91,323$
9. $1,00,000 + 40,000 + 3,000 + 100 + \underline{\hspace{1cm}} + 7 = 1,43,117$
 $\Rightarrow 1,00,000 + 40,000 + 3,000 + 100 + 10 + 7 = 1,43,117$
Hence, $1,00,000 + 40,000 + 100 + 3,000 + 10 + 7 = 1,43,117$
10. $3,00,000 + 40,000 + \underline{\hspace{1cm}} + 500 + 0 + 8 = 3,49,508$
 $\Rightarrow 3,00,000 + 40,000 + 9,000 + 500 + 0 + 8 = 3,49,508$
Hence $8 + 0 + 500 + 9,000 + 40,000 + 3,00,000 = 3,49,508$

- B.**
- | | |
|------------------------------------|-------------------------------------|
| 1. $37,28,173 \boxed{>} 29,83,177$ | 2. $10,29,382 \boxed{>} 9,32,718$ |
| 3. $72,63,712 \boxed{>} 70,92,817$ | 4. $62,51,517 \boxed{<} 67,00,271$ |
| 5. $4,28,271 \boxed{<} 39,10,286$ | 6. $26,31,817 \boxed{>} 7,82,817$ |
| 7. $17,20,384 \boxed{>} 12,73,840$ | 8. $63,77,183 \boxed{=} 63,77,183$ |
| 9. $40,83,727 \boxed{<} 48,01,838$ | 10. $69,18,373 \boxed{>} 7,18,379$ |
| 11. $7,43,828 \boxed{>} 6,91,897$ | 12. $87,10,383 \boxed{=} 87,10,383$ |

- C.**
1.
$$\begin{array}{r} 70,00,000 \\ + 1,82,000 \\ \hline 71,82,000 \end{array}$$
 $71,83,725 \boxed{>} 71,82,000$
Hence, $71,83,725 \boxed{>} 70,00,000 + 1,82,000$
2.
$$\begin{array}{r} 10,00,000 \\ + 2,00,000 \\ \hline 12,00,000 \end{array}$$
 $10,29,384 \boxed{<} 12,00,000$
Hence, $10,29,384 \boxed{<} 10,00,000 + 2,00,000$
3.
$$\begin{array}{r} 54,00,000 \\ + 27,950 \\ \hline 54,27,950 \end{array}$$
 $54,27,950 \boxed{<} 55,00,000$
Hence, $54,00,000 + 27,950 \boxed{<} 55,00,000$
4.
$$\begin{array}{r} 19,00,000 \\ + 30,000 \\ \hline 19,30,000 \end{array}$$

5. $\underline{60}$ 69 $\underline{70}$

[The number on the one's place is 9, which is greater than 5. So, 69 will be round off to 70.]

6. $\underline{10}$ 12 $\underline{20}$

[The number on the one's place is 2, which is less than 5. So, 12 will be round off to 10.]

F. 1. $\underline{20}$ 25 $\underline{30}$

The number on the one's place is 5, which is equal to 5.
So, 25 will be closer to 30.

Hence Round off 25 to nearest ten is 30.

2. $\underline{0}$ 9 $\underline{10}$

The number on the one's place is 9, which is greater than 5.
So, 9 will be closer to 10.

Hence Round off 9 to nearest ten is 10.

3. $\underline{60}$ 67 $\underline{70}$

The number on the one's place is 7, which is greater than 5.
So, 67 will be closer to 70.

Hence Round off 67 to nearest ten is 70.

4. $\underline{90}$ 99 $\underline{100}$

The number on the one's place is 9, which is greater than 5.
So, 99 will be closer to 100.

Hence Round off 99 to nearest ten is 100.

5. $\underline{70}$ 75 $\underline{80}$

The number on the one's place is 5, which is equal to 5.
So, 75 will be closer to 80.

Hence Round off 75 to nearest ten is 80.

6. $\underline{0}$ 3 $\underline{10}$

The number on the one's place is 3, which is less than 5.
So, 3 will be closer to 0.

Hence Round off 3 to nearest ten is 0.

7. $\underline{10}$ 13 $\underline{20}$

The number on the one's place is 3, which is less than 5.
So, 13 will be closer to 10.

Hence Round off 13 to nearest ten is 10.

8. $\underline{70}$ 70 $\underline{80}$

The number on the one's place is 0, which is less than 5.
So, 70 will be closer to 70.

Hence Round off 70 to nearest ten is 70.

G. 1. XVII

$$= 10 + 5 + 1 + 1$$

$$= 17$$

2. XX

$$= 10 + 10$$

$$= 20$$

3. XIV

$$= 10 + (5 - 1)$$

$$= 10 + 4$$

$$= 14$$

4. XXV

$$= 10 + 10 + 5$$

$$= 25$$

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- | | |
|---|---|
| <p>5. LI
= 50 + 1
= 51</p> <p>6. XXXVII
= 10 + 10 + 10 + 5 + 1 + 1
= 37</p> <p>7. LXII
= 50 + 10 + 1 + 1
= 62</p> <p>8. XVI
= 10 + 5 + 1
= 16</p> <p>9. XC
= 100 - 10
= 90</p> <p>10. LXXIII
= 50 + 10 + 10 + 1 + 1 + 1
= 73</p> <p>11. C
= 100</p> <p>12. XXIX
= 10 + 10 + (10 - 1)
= 10 + 10 + 9
= 29</p> <p>H. 1. 13
= 10 + 3
= XIII</p> <p>2. 30
= 10 + 10 + 10
= XXX</p> | <p>3. 9
= 10 - 1
= IX</p> <p>4. 50
= L</p> <p>5. 25
= 20 + 20 + 5
= XXV</p> <p>6. 19
= 10 + (10 - 1)
= XIX</p> <p>7. 41
= (50 - 10) + 1
= XLI</p> <p>8. 28
= 10 + 10 + 5 + 1 + 1 + 1
= XXVIII</p> <p>9. 60
= 50 + 10
= LX</p> <p>10. 72
= 50 + 10 + 10 + 1 + 1
= LXXII</p> <p>11. 80
= 50 + 10 + 10 + 10
= LXXX</p> <p>12. 59
= 50 + (10 - 1)
= LIX</p> |
|---|---|

The Mathematical Mind

1.

Ten Lakhs place	Lakhs place	Ten Thousands place	Thousands place	Hundreds place	Tens place	Ones place
4	9	8	6	7	1	4

Hence, The number is 4986714.

2.

Crores place	Ten Lakhs place	Lakhs place	Ten Thousands place	Thousands place	Hundreds place	Tens place	Ones place
1	6	3	4	0	5	9	2

Hence, The number is 16340592

- I. 1. Number in triangle = 1, 3, 5, 6
 Numbers in rectangle = 3, 4, 5, 6, 7, 8
 Number in oval = 2, 5, 7, 4

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2. The 4-digit numbers using 2, 5, 0 and 6 are—
2506, 2056, 2605, 2560, 2650, 5206, 5602, 5620, 6205, 6520, 6025, 5260, 5062, 5026, 6250, 6502, 6052, 2065.

D.

Lakhs place	Tens Thousand place	Thousands place	Hundreds place	Tens place	Ones place
5	3	7	1	9	9

Hence, the number is 5,37,199.

E. 1.

Ten crores place	Crores place	Ten lakhs place	Lakhs place	Ten hundreds place	Thousand place	Hundred place	Ten place	One place
8	5	9	1	4	2	3	6	7

Hence, the number is 85, 91, 42, 367

2.

Ten Crores place	Crores place	Ten Lakhs place	Lakhs place	Ten Thousands place	Thousands place	Hundreds place	Tens place	Ones place
1	9	7	4	6	8	2	3	5

Hence, the number is 19, 74, 68, 235

CHAPTER-2
All about the 4 operations

Ex - 2.1

A. 1.

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

2.

TTh	Th	H	T	o
4	7	9	2	7
+ 2	3	1	4	3
7	1	0	7	0

3.

TTh	Th	H	T	o
8	3	4	2	1
1	0	5	9	2
9	4	0	1	3

B. 1.

①	①②①
	36
	171311
	867
	730474
+	161
	<u>902849</u>

$$\begin{array}{r}
 2. \quad \textcircled{1} \textcircled{1} \textcircled{2} \textcircled{2} \\
 6542 \\
 38 \\
 225659 \\
 36 \\
 + 91 \\
 \hline
 232366
 \end{array}$$

$$\begin{array}{r}
 3. \quad \textcircled{1} \textcircled{1} \textcircled{1} \textcircled{3} \textcircled{3} \\
 16 \\
 96094 \\
 20278 \\
 808584 \\
 + 28 \\
 \hline
 925000
 \end{array}$$

$$\begin{array}{r}
 4. \quad \textcircled{1} \textcircled{2} \textcircled{3} \textcircled{2} \\
 71547 \\
 322 \\
 88 \\
 89892 \\
 + 977 \\
 \hline
 162826
 \end{array}$$

$$\begin{array}{r}
 5. \quad \textcircled{1} \textcircled{1} \textcircled{2} \textcircled{3} \textcircled{1} \\
 9708 \\
 892 \\
 45 \\
 172580 \\
 + 155280 \\
 \hline
 338505
 \end{array}$$

$$\begin{array}{r}
 6. \quad \textcircled{1} \textcircled{2} \textcircled{2} \textcircled{1} \textcircled{1} \\
 609721 \\
 17 \\
 1725 \\
 89441 \\
 + 233 \\
 \hline
 701137
 \end{array}$$

$ \begin{array}{r} C. 1. \quad 68 \\ 37 \\ 1300 \\ + 11 \\ \hline 1416 \end{array} $		$ \begin{array}{r} 1559 \\ -1416 \\ \hline 143 \end{array} $
---	--	---

Hence $68 + 37 + 1300 + \underline{143} + 11 = 1159$

$ \begin{array}{r} 2. \quad 3000 \\ 20 \\ 88 \\ + 23 \\ \hline 3131 \end{array} $		$ \begin{array}{r} 3237 \\ -3131 \\ \hline 106 \end{array} $
--	--	---

Hence, $\underline{106} + 23 + 88 + 20 + 3000 = 3237$

$ \begin{array}{r} 3. \quad 2000 \\ 161 \\ 4 \\ + 8 \\ \hline 2173 \end{array} $		$ \begin{array}{r} 2178 \\ -2173 \\ \hline 5 \end{array} $
---	--	---

Hence, $161 + 4 + 8 + \underline{5} + 2000 = 2178$

$ \begin{array}{r} 4. \quad 2700 \\ 197 \\ 12 \\ + 1 \\ \hline 2910 \end{array} $		$ \begin{array}{r} 2914 \\ -2910 \\ \hline 4 \end{array} $
--	--	---

Hence, $\underline{4} + 2700 + 1 + 197 + 12 = 2914$

Maths Stories

1. Sum of 40,711 and 73,412

$$\begin{array}{r} 40,711 \\ + 73,412 \\ \hline 1,14,123 \end{array}$$

Hence the sum of 40,711 and 73,412 is 1,14,123.

Now, Difference of 82,731 and 37,128

$$\begin{array}{r} 82,731 \\ + 37,128 \\ \hline 45,603 \end{array}$$

Hence, the difference of 82,731 and 37,128 is 45,603.

2. (a)

$$\begin{array}{r} 64,278 \\ + 53,172 \\ \hline 1,17,450 \end{array}$$

Hence, 1,17,450 is 53,172 more than 64,278.

- (b)

$$\begin{array}{r} 64,278 \\ - 53,172 \\ \hline 11,106 \end{array}$$

Hence, 11,106 is 53,172 less than 64,278.

- (c)

$$\begin{array}{r} 23,265 \\ + 1,872 \\ \hline 25,137 \end{array}$$

Hence 25,137 is 1,872 more than 23,265.

- (d)

$$\begin{array}{r} 23,265 \\ + 1,872 \\ \hline 21,393 \end{array}$$

Hence, 21,393 is 1,872 less than 23,265.

3. (a)

$$\begin{array}{r} 17,319 \\ + 1,279 \\ \hline 18,598 \end{array}$$

Hence, the number is 18,598.

- (b)

$$\begin{array}{r} 23,735 \\ + 2,035 \\ \hline 25,770 \end{array}$$

Hence, the number is 25,770.

4. (a)

$$\begin{array}{r} 65,785 \\ - 25,483 \\ \hline 40,302 \end{array}$$

Hence, 40,302 should be added to 25,483 to get the sum of 65,785.

- (b)

$$\begin{array}{r} 52,847 \\ - 22,489 \\ \hline 30,358 \end{array}$$

Hence, 30,358 should be subtracted from 52,847 to get 22,489.

$$\begin{array}{r}
 5. \quad 94,291 \\
 \quad - 63,512 \\
 \hline
 \quad 30,779
 \end{array}$$

Hence, 63,512 is 30,779 smaller than 94,291.

$$\begin{array}{r}
 6. \quad 42,629 < 91,429 \\
 \quad 91,429 \\
 \quad - 42,929 \\
 \hline
 \quad 48,500
 \end{array}$$

Hence, 91,429 is greater than 42,929 by 48,500.

7. (a) Sum of 14,581 and 18,541

$$\begin{array}{r}
 14,581 \\
 + 18,541 \\
 \hline
 33,122
 \end{array}$$

Sum of 23,427 and 23,243

$$\begin{array}{r}
 23,427 \\
 + 23,243 \\
 \hline
 46,670
 \end{array}$$

Now, difference of 46,670 and 33,122

$$\begin{array}{r}
 46,670 \\
 - 33,122 \\
 \hline
 13,548
 \end{array}$$

Hence, the difference of the two sums $14,581 + 18,541$ and $23,427 + 23,243$ is 13,548.

$$\begin{array}{r|l}
 (b) \quad 32,309 & 41,724 \\
 \quad - 23,903 & - 31,527 \\
 \hline
 \quad 8,406 & \hline
 \quad 10,197
 \end{array}$$

Now, sum of 8,406 and 10,197

$$\begin{array}{r}
 8,406 \\
 + 10,197 \\
 \hline
 18,603
 \end{array}$$

Hence, the sum of the two differences $32,309 + 23,903$ and $41,724 + 31,527$ is 18,603.

8. Total milk produces = 25,545 litres

Milk supplied to milk-depot = 15,625 litres

Milk supplied to the market = Total milk – milk supplied to milk – depot

$$\begin{array}{r}
 25,545 \\
 - 15,625 \\
 \hline
 9,920
 \end{array}$$

Hence, 9,920 litres of milk is supplied to the market

$$\begin{array}{r}
 \text{D. 1.} \quad 299 \\
 \quad \times 362 \\
 \hline
 \quad 598 \\
 \quad 17940 \\
 + 89700 \\
 \hline
 108238
 \end{array}
 \qquad
 \begin{array}{r}
 2. \quad 188 \\
 \quad \times 740 \\
 \hline
 \quad 000 \\
 \quad 7520 \\
 + 131600 \\
 \hline
 139120
 \end{array}$$

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$$\begin{array}{r}
 3. \quad \quad 191 \\
 \quad \quad \times 129 \\
 \hline
 \quad \quad 1719 \\
 \quad \quad 3820 \\
 + 19100 \\
 \hline
 \quad \quad 24639
 \end{array}$$

$$\begin{array}{r}
 4. \quad \quad 340 \\
 \quad \quad \times 962 \\
 \hline
 \quad \quad 680 \\
 \quad \quad 20400 \\
 + 306000 \\
 \hline
 \quad \quad 327080
 \end{array}$$

$$\begin{array}{r}
 5. \quad \quad 529 \\
 \quad \quad \times 132 \\
 \hline
 \quad \quad 1058 \\
 \quad \quad 15870 \\
 + 52900 \\
 \hline
 \quad \quad 69828
 \end{array}$$

$$\begin{array}{r}
 6. \quad \quad 290 \\
 \quad \quad \times 426 \\
 \hline
 \quad \quad 1740 \\
 \quad \quad 5800 \\
 + 116000 \\
 \hline
 \quad \quad 123540
 \end{array}$$

$$\begin{array}{r}
 7. \quad \quad 580 \\
 \quad \quad \times 707 \\
 \hline
 \quad \quad 4060 \\
 \quad \quad 0000 \\
 + 406000 \\
 \hline
 \quad \quad 410060
 \end{array}$$

$$\begin{array}{r}
 8. \quad \quad 468 \\
 \quad \quad \times 162 \\
 \hline
 \quad \quad 936 \\
 \quad \quad 28080 \\
 + 46800 \\
 \hline
 \quad \quad 75816
 \end{array}$$

E. 1.
$$\begin{array}{r}
 17 \\
 53 \overline{)901} \\
 \underline{-53} \\
 371 \\
 \underline{371} \\
 0
 \end{array}$$

2.
$$\begin{array}{r}
 13 \\
 68 \overline{)884} \\
 \underline{-68} \\
 204 \\
 \underline{-204} \\
 0
 \end{array}$$

Hence, Answer is b.

Hence, Answer is 0.

3.
$$\begin{array}{r}
 13 \\
 27 \overline{)351} \\
 \underline{-27} \\
 81 \\
 \underline{-81} \\
 0
 \end{array}$$

4.
$$\begin{array}{r}
 25 \\
 18 \overline{)451} \\
 \underline{-36} \\
 91 \\
 \underline{90} \\
 1
 \end{array}$$

Hence, Answer is 0.

Hence, Answer is c.

5.
$$\begin{array}{r}
 17 \\
 41 \overline{)697} \\
 \underline{-41} \\
 287 \\
 \underline{-287} \\
 0
 \end{array}$$

6.
$$\begin{array}{r}
 23 \\
 31 \overline{)716} \\
 \underline{-62} \\
 96 \\
 \underline{-93} \\
 3
 \end{array}$$

Hence, Answer is b.

Hence, Answer is e.

$$\begin{array}{r} 9 \\ 72 \overline{)648} \\ - 648 \\ \hline 0 \end{array}$$

Hence, Answer is r.

$$\begin{array}{r} 7 \\ 19 \overline{)143} \\ - 133 \\ \hline 10 \end{array}$$

Hence, Answer is y.

$$\begin{array}{r} 2 \\ 63 \overline{)167} \\ - 126 \\ \hline 41 \end{array}$$

Hence, Answer is u.

$$\begin{array}{r} 31 \\ 16 \overline{)496} \\ - 48 \\ \hline 16 \\ - 16 \\ \hline 0 \end{array}$$

Hence, Answer is f.

$$\begin{array}{r} 2 \\ 57 \overline{)117} \\ - 114 \\ \hline 3 \end{array}$$

Hence, Answer is n.

- F. 1. Total member = 16
 Number of eggs needed for 1 omelette = 3
 Number of eggs needed for 16 omelettes = 16×3

$$\begin{array}{r} 16 \\ \times 3 \\ \hline 48 \end{array}$$

Hence, the needed 48 eggs.

2. Total books = 48
 Number of non-action books = half of the total books

$$\begin{array}{r} 24 \\ 2 \overline{)48} \\ - 4 \\ \hline 08 \\ - 8 \\ \hline 0 \end{array}$$

Hence, she checked out 24 non-action books.

$$\begin{array}{r} 9 \\ 23 \overline{)207} \\ - 207 \\ \hline 0 \end{array}$$

Hence, Answer is r.

$$\begin{array}{r} 11 \\ 36 \overline{)405} \\ - 36 \\ \hline 45 \\ - 36 \\ \hline 9 \end{array}$$

Hence, Answer is m.

$$\begin{array}{r} 31 \\ 25 \overline{)775} \\ - 75 \\ \hline 25 \\ - 25 \\ \hline 0 \end{array}$$

Hence, Answer is f.

$$\begin{array}{r} 3 \\ 98 \overline{)294} \\ - 294 \\ \hline 0 \end{array}$$

Hence, Answer is i.

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3. Total number of beads = 396
 Total number of identical bracelets = 44
 Number of beads used in each identical bracelets =

$$\begin{array}{r} 9 \\ 44 \overline{)396} \\ - 396 \\ \hline 0 \end{array}$$

Hence, she will use 9 beads to each bracelet.

4. Number of dogs he walked on Saturday = 9
 His earning on Saturday = ₹ 720
 Money he charge per dog =

$$\begin{array}{r} 80 \\ 9 \overline{)720} \\ - 72 \\ \hline 0 \end{array}$$

Hence, he charged ₹ 80 per dog.

5. Number of times meera volunteers at the animal shelter in one month = 7
 Total number of months = 12
 Total number of times she volunteered at the animal shelter = 12×7

$$\begin{array}{r} 12 \\ \times 7 \\ \hline 84 \end{array}$$

Hence, she volunteered 84 times at the animal shelter in 12 months.

6. Total number of cards hari has = 817
 Number of cards can fit on a page = 19
 Number of pages he will use =

$$\begin{array}{r} 43 \\ 19 \overline{)817} \\ - 76 \\ \hline 57 \\ - 57 \\ \hline 0 \end{array}$$

Hence, he will use 43 pages.

7. Length of wire in one robot = 16 feet
 Total number of robots = 15
 Total length of wire will she need = 16×15

$$\begin{array}{r} 16 \\ \times 15 \\ \hline 80 \\ 160 \\ \hline 240 \end{array}$$

Hence, 240 feet of wire will she need.

8. Total number of students = 48
 Number of student each driver will take in his car = 6
 Number of drivers needed =

$$\begin{array}{r} 8 \\ 6 \overline{)48} \\ - 48 \\ \hline 0 \end{array}$$

Hence, they will need 8 drivers.

9. Number of days in 1 week = 7
 Number of days in 4 weeks = $7 \times 4 = 28$ days
 Number of glasses of water naveen drank in 1 day = 8
 Number of glasses of water he will drink in 28 days =

$$\begin{array}{r} 28 \\ \times 8 \\ \hline 224 \end{array}$$

Hence, 224 glasses of water he drank in four weeks

- G. 1. Charges of 1 large painting = ₹ 56.25
 Charges of 6 large paintings = ₹ 337.50

$$\begin{array}{r} 56.25 \\ \times 6 \\ \hline 337.50 \end{array}$$

- Charges of 1 small painting = ₹ 25.80
 Charges of 3 small paintings = ₹ 77.40

$$\begin{array}{r} 25.80 \\ \times 3 \\ \hline 77.40 \end{array}$$

Total money made by Ravi = ₹ (337.50 + 77.40)

$$\begin{array}{r} 337.50 \\ + 77.40 \\ \hline 414.90 \end{array}$$

Hence, he made ₹ 414.90 in all.

2. Length of material needed for 7 quilts = 21 metres
 Length of material needed for 1 quilt = $21 \div 7$
 = 3 metres

$$\begin{array}{r} 3 \\ 7 \overline{)21} \\ - 21 \\ \hline 0 \end{array}$$

Length of material needed to make 12 quilts = 3×12
 = 36 meters

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \end{array}$$

Hence, 36 metres of material would be required to make 12 quilts.

86 Mathematics Answer Key 1 to 5

3. Points earned by Roshan and Tarun = 16×9
 $= 144$

$$\begin{array}{r} 16 \\ \times 9 \\ \hline 144 \end{array}$$

Points earned by Pawan and Mohit = 17×9
 $= 153$

$$\begin{array}{r} 17 \\ \times 9 \\ \hline 153 \end{array}$$

Excess points earned by Pawan and Mohit = $153 - 144$
 $= 9$

$$\begin{array}{r} 153 \\ - 144 \\ \hline 9 \end{array}$$

Hence, Pawan and Mohit have 9 more points than Roshan and Tarun.

4. Vegetables sold on Thursday = 2100 kg
 Vegetables sold on Friday = (2×2100) kg
 $= 4200$ kg

$$\begin{array}{r} 2100 \\ \times 2 \\ \hline 4200 \end{array}$$

Vegetables sold on Saturday = 300 kg
 More vegetables sold on Friday and Saturday = $4200 - 300$
 $= 3900$ kg

$$\begin{array}{r} 4200 \\ - 300 \\ \hline 3900 \end{array}$$

Hence, they sold 3900 kg more vegetables on Friday than Saturday.

The Mathematical Mind

- 042 or 062
- $6 + 3$

$$= \boxed{3 \mid 6+3}$$

$$= 39$$

Hence, $6 + 3 = 39$

Creative Approach

A. 1. (a) $\begin{array}{r} \textcircled{1}\textcircled{1}\textcircled{1} \textcircled{1}\textcircled{1} \\ 5436289 \\ + 2575657 \\ \hline 8011946 \end{array}$

Hence, The sum of 5436289 and 2575657 is 8011946

2. (b) The smallest five digit number = 10000

The Greatest five digit number = 99999

Their Difference = $99999 - 10000$

$$\begin{array}{r} 99999 \\ + 10000 \\ \hline 89999 \end{array}$$

Hence, The difference between the smallest five digit number and the greatest five digit number is 89999.

3. (d) 245

$$\begin{array}{r} 245 \\ \times 12 \\ \hline 490 \\ + 2450 \\ \hline 2940 \end{array}$$

Hence, The product of 245×12 is 2,940

4. (c) Number of pine trees the gardner bought = 525

Number of trees wants to plant in 1 row = 15

Number of rows are needed = $525 \div 15$

$$= 35$$

$$\begin{array}{r} 35 \\ 15 \overline{)525} \\ \underline{-45} \\ 75 \\ \underline{-75} \\ 0 \end{array}$$

Hence, 35 rows are needed.

5. (a) Cost of 1 table fan = ₹ 3,250

Cost of 5 table fans = ₹ $(3,250 \times 5)$

$$= ₹ 16,250$$

$$\begin{array}{r} 3250 \\ \times 5 \\ \hline 16250 \end{array}$$

B. Do it yourself.

- C.** 1. Number of balls in 1 box = 408

Number of balls in 634 boxes = 408×634

$$= 2,58,672$$

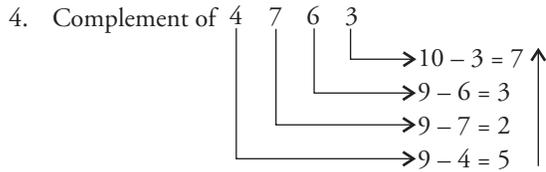
$$\begin{array}{r} 634 \\ \times 408 \\ \hline 5072 \\ 0000 \\ + 253600 \\ \hline 258672 \end{array}$$

Hence, 2,58,672 balls are there in 634 boxes.

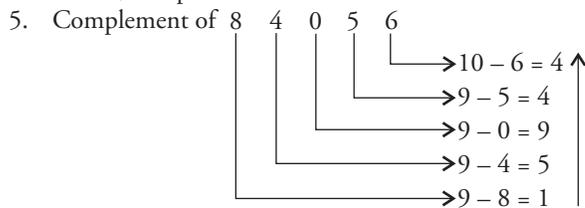
2. Cost of 20 copies = ₹ 360

Cost of 1 copies = ₹ $(360 \div 20)$

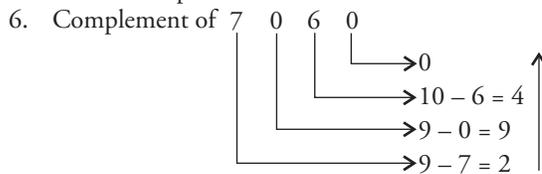
$$= ₹ 18$$



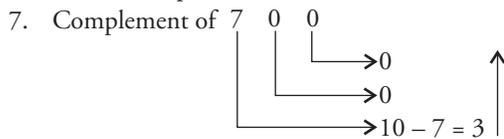
Hence, complement of 4763 is 5237.



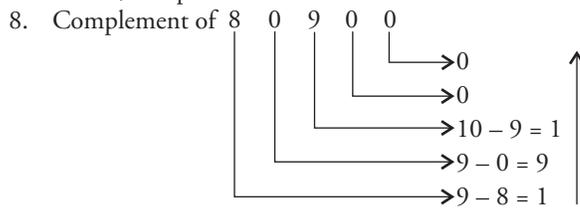
Hence, complement of 84056 is 15944.



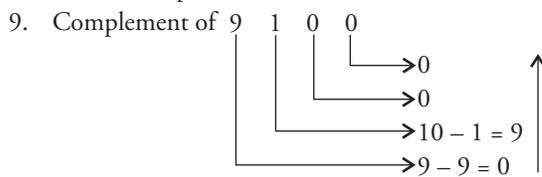
Hence, complement of 7060 is 2940.



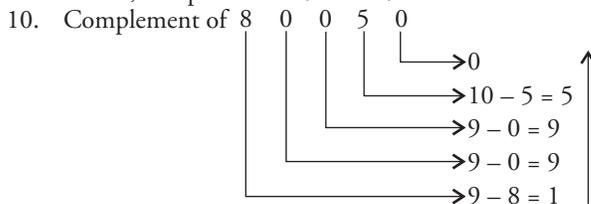
Hence, complement of 700 is 300.



Hence, complement of 80900 is 19100.

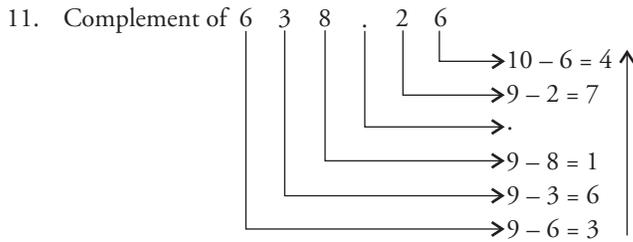


Hence, complement of 9100 is 900.

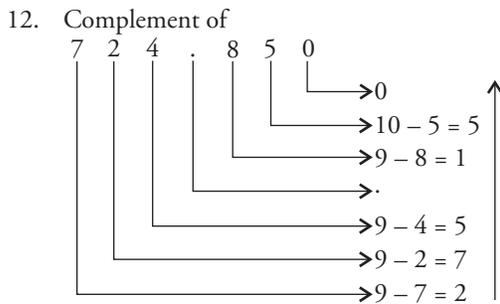


Hence, complement of 80050 is 19950.

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Hence, complement of 638.26 is 361.74.



Hence, complement of 724.850 is 275.150.

- C. 1. (a) $\dot{5}$
 $= 5 + 1$
 $= 6$
 (c) $2\dot{7}$
 $= 27 + 1$
 $= 28$
2. (a) $\dot{6}$
 $= 6 - 1$
 $= 5$
 (c) $2\dot{6}$
 $= 26 - 1$
 $= 25$
3. (a) $\dot{0}8$
 $= \underline{0+1}8$
 $= 18$
 (c) $\dot{1}8$
 $= \underline{1+1}8$
 $= 28$
4. (a) $\dot{1}7$
 $= \underline{1-1}7$
 $= 07$
 (c) $3\dot{6}6$
 $= 3\underline{6-1}6$
 $= 356$
- (b) $\dot{1}8$
 $= 18 + 1$
 $= 19$
 (d) $3\dot{1}$
 $= 31 + 1$
 $= 32$
 (b) $\dot{1}7$
 $= 17 - 1$
 $= 16$
 (d) $3\dot{5}$
 $= 35 - 1$
 $= 34$
 (b) $\dot{1}0$
 $= \underline{1+1}0$
 $= 20$
 (d) $\dot{2}5$
 $= \underline{2+1}5$
 $= 35$
 (b) $\dot{2}5$
 $= \underline{2-1}5$
 $= 15$
 (d) $8\dot{5}2$
 $= 8\underline{5-1}2$
 $= 842$

- D. 1. 8×12 , Base = 10
- $$\begin{array}{r}
 = 8 \qquad - 2 \\
 \underline{12 \qquad + 2} \\
 = 12 - 2/(-2) \times (+2) \\
 = 10/-4
 \end{array}$$

- $$= 9 + 1/-4$$
- $$= 9/10 - 4$$
- $$= 9/6$$
- $$= 96$$
2. 4×11 , Base 10
- $$= 4 \quad -6$$
- $$\quad 11 \quad +1$$
- $$= 11 - 6/(-6) \times (+1)$$
- $$= 5/-6$$
- $$= 4 + 1/-6$$
- $$= 4/10-6$$
- $$= 4/4$$
- $$= 44$$
3. 3×12 , Base 10
- $$= 3 \quad -7$$
- $$\quad 12 \quad +2$$
- $$= 12 - 7/(-7) \times (+2)$$
- $$= 5/-14$$
- $$= 4+1/-14$$
- $$= 4/10-14$$
- $$= 4/-4$$
- $$= 3 + 1/-4$$
- $$= 3/10 - 4$$
- $$= 3/6$$
- $$= 36$$
4. 9×12 , Base 10
- $$= 9 \quad -1$$
- $$\quad 12 \quad +2$$
- $$= 12 - 1/(-1) \times (+2)$$
- $$= 11/-2$$
- $$= 10 + 1/-2$$
- $$= 10/10 - 2$$
- $$= 10/8 = 108$$
5. 8×11 , Base 10
- $$= 8 \quad -2$$
- $$\quad 11 \quad +1$$
- $$= 11 - 2/(-2) \times (+1)$$
- $$= 9/-2$$
- $$= 8 + 1/-2$$
- $$= 8/10 - 2$$
- $$= 8/8 = 88$$
6. 7×13 , Base 10
- $$= 7 \quad -3$$
- $$\quad 13 \quad +3$$
- $$= 13 - 3/(-3) \times (+3)$$
- $$= 10/-9$$
- $$= 9 + 1/-9$$
- $$= 9/10 - 9$$

- $$= 9/1$$
- $$= 91$$
- E 1. $\begin{array}{r} 82 \\ -54 \\ \hline 28 \end{array}$ 2. $\begin{array}{r} 66 \\ -48 \\ \hline 18 \end{array}$
3. $\begin{array}{r} 74 \\ -69 \\ \hline 05 \end{array}$ 4. $\begin{array}{r} 342 \\ -143 \\ \hline 199 \end{array}$
5. $\begin{array}{r} 524 \\ -267 \\ \hline 257 \end{array}$
- F 1. $\begin{array}{r} 200 \\ -132 \\ \hline 068 \end{array}$ 2. $\begin{array}{r} 500 \\ -309 \\ \hline 191 \end{array}$
3. $\begin{array}{r} 805 \\ -608 \\ \hline 197 \end{array}$ 4. $\begin{array}{r} 1700 \\ -973 \\ \hline 727 \end{array}$
5. $\begin{array}{r} 8305 \\ -5281 \\ \hline 3024 \end{array}$
- G. 1. (a) $14 - 10 = 4$ (b) $11 - 10 = 1$
 (c) $8 - 10 = -2$ (d) $9 - 10 = -1$
 (e) $13 - 10 = 3$ (f) $19 - 10 = 9$
 (g) $7 - 10 = -3$ (h) $6 - 10 = -4$
2. (a) 12×9 , Base 10
- $$= 12 \quad +2$$
- $$= 9 \quad -1$$
- $$= 9 + 2/(+2) \times (-1)$$
- $$= 11/-2$$
- $$= 10 + 1/-2$$
- $$= 10/10 - 2$$
- $$= 10/8$$
- $$= 108$$
- (b) 15×12 , Base 10
- $$= 15 \quad +5$$
- $$\quad 12 \quad +2$$
- $$= 12 + 5/(+5) \times (+2)$$
- $$= 17/10$$
- $$= 17 + 1/0$$
- $$= 18/0 = 180$$

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- (c) 13×17
 $= 13 + 3$
 $17 + 7$
 $= 17 + 3 / (+3) \times (+7)$
 $= 20/21$
 $= 20 + 2/1$
 $= 22/1$
 $= 221$
- (d) 8×9 , Base 10
 $= 8 - 2$
 $9 - 1$
 $= 9 - 2 / (-2) \times (-1)$
 $= 7 / 2$
 $= 72$
- (e) 14×11
 $= 14 + 4$
 $11 + 1$
 $= 11 + 4 / (+4) \times (+1)$
 $= 15 / 4$
 $= 154$
- (f) 9×16 , Base 10
 $= 9 - 1$
 $16 + 6$
 $= 16 - 1 / (-1) \times (+6)$
 $= 15 / -6$
 $= 14 + 1 / -6$
 $= 14 / 10 - 6$
 $= 14 / 4$
 $= 144$
- (g) 12×13 , Base 10
 $= 12 + 2$
 $13 + 3$
 $= 13 + 2 / (+2) \times (+3)$
 $= 15/6$
 $= 156$
- (h) 13×10 , Base 10
 $13 + 3$
 $10 + 0$
 $= 10 + 3 / (+3) \times (0)$
 $= 13/0$
 $= 130$
3. (a) 12×14 , Base 10
 $= 12 + 2$
 $14 + 4$

$$= 14 + 2 / (+2) \times (+4)$$

$$= 16/8$$

$$= 168$$

- (b) 11×16 , Base 10
 $= 11 + 1$
 $16 + 6$
 $= 16 + 1 / (+1) \times (+6)$
 $= 17/6$
 $= 176$

5. (a)
$$\begin{array}{r} 805 \\ -608 \\ \hline \cdot \cdot \\ 197 \end{array} \qquad \begin{array}{r} 800 \\ -543 \\ \hline \cdot \cdot \\ 257 \end{array}$$

6. (a) $6 - 10$
 $= -4$
 (b) $9 - 10$
 $= -1$
 (c) $14 - 10$
 $= 4$

7. Complement of 4 = $10 - 4$
 $= 6$
 Complement of 6 = $10 - 6$
 $= 4$

Complement of 12

$$\begin{array}{r} 12 \\ \hline 10 - 2 = 8 \uparrow \\ 9 - 1 = 8 \uparrow \end{array}$$

Hence, complement of 12 is 88.

8. (a) 16×18 , Base 10
 $= 16 + 6$
 $18 + 8$
 $= 18 + 6 / (+6) \times (+8)$
 $= 24/48$
 $= 24 + 4 / 8$
 $= 28/8$
 $= 288$
- (b) 14×16 , Base 10
 $= 14 + 4$
 $16 + 6$
 $= 16 + 4 / (+4) \times (+6)$
 $= 20/24$
 $= 20 + 2 / 4$
 $= 22/4$
 $= 224$

CHAPTER-4
Factors and Multiples

A. 1.

$$\begin{array}{r|l} 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

Hence, The Factors of 15 are 1, 3, 5 and 15.

2.

$$\begin{array}{r|l} 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

Hence, The Factors of 25 are 1, 5 and 25.

3.

$$\begin{array}{r|l} 3 & 3 \\ \hline & 1 \end{array}$$

Hence, The Factors of 3 are 1 and 3.

4.

$$\begin{array}{r|l} 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array}$$

Hence, The Factors of 27 are 1, 3, 9 and 27.

5.

$$\begin{array}{r|l} 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array}$$

Hence, The Factors of 18 are 1, 2, 3, 6, 9 and 18.

6.

$$\begin{array}{r|l} 2 & 12 \\ \hline 3 & 6 \\ \hline 3 & 3 \\ \hline & 1 \end{array}$$

Hence, The Factors of 12 are 1, 2, 3, 4, 6 and 12.

7.

$$\begin{array}{r|l} 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

Hence, The Factors of 21 are 1, 3, 7 and 21.

8.

$$\begin{array}{r|l} 31 & 31 \\ \hline & 1 \end{array}$$

Hence, The Factors of 31 are 1 and 31.

9.

$$\begin{array}{r|l} 7 & 49 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

Hence, The Factors of 49 are 1, 7 and 49.

10.

$$\begin{array}{r|l} 2 & 16 \\ \hline 2 & 8 \\ \hline 2 & 4 \\ \hline 2 & 2 \\ \hline & 1 \end{array}$$

Hence, The Factors of 16 are 1, 2, 4, 8 and 16.

B. 1. $9 \times 1 = 9$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

Hence, first four multiple of 9 are 9, 18, 27 and 36.

2. Multiple of 7 =

$$7 \times 1 = 7$$

$$7 \times 2 = 14$$

$$7 \times 3 = 21$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

Hence, 7, 14, 21, and 35 multiples of 7 and 1, 17 and 27 are not multiple of 7.

So, ~~7~~ (7) (14) ~~21~~ (21) ~~35~~ (35)

3. Multiple of 8

$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

$$8 \times 6 = 48$$

$$8 \times 7 = 56$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

$$8 \times 10 = 80$$

Hence, 40, 64, 72 are the multiples of 8.

and 38, 45, 49 and 81 are not the multiples of 8.

So, ~~38~~ (40) ~~45~~ ~~49~~ (64) (72) ~~81~~

4. Yes, The multiples of 4 are always even because the multiple of even numbers are always even and 4 is also a even number.

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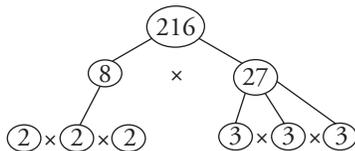
5. No, The multiple of 3 are not always odd number. Because multiples of odd numbers can be odd or even and 3 is also an odd number.

C.

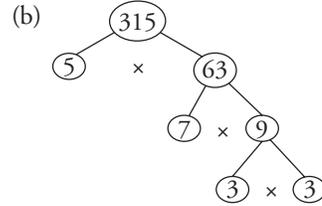
Number	List of factors	Prime or composite ?
10	1, 2, 5, 10	Composite
5	1, 5	prime
12	1, 2, 3, 4, 6, 12	composite
18	1, 2, 3, 6, 9, 18	composite
41	1, 41	prime
15	1, 3, 5, 15	composite
2	1, 2	prime
49	1, 7, 49	composite
73	1, 73	prime
33	1, 3, 11, 33	composite
21	1, 3, 7, 21	composite

- D.
- The factors of 8 are 1, 2, 4 and 8.
8 is a composite number. because it has more than two factors.
 - The factors of 20 are 1, 2, 4, 5, 10 and 20 is a composite number because it has more than two factors.
 - Factors of 19 are 1 and 19.
19 is a prime number because it has only two factors.
 - Factors of 37 are 1 and 37.
37 is a prime number because it has only two factors.
 - Factors of 9 are 1, 3 and 9
9 is a composite number. because it has more than two factors.
 - Factors of 13 are 1 and 13.
13 is a prime number because it has only two factors.

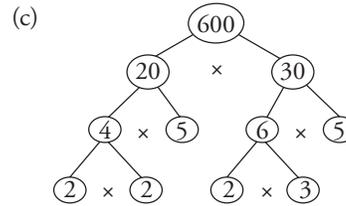
E. 1. (a)



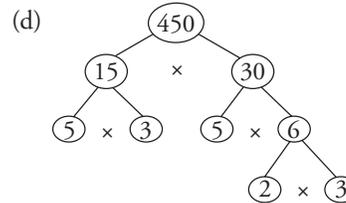
Hence, The prime factorization of 216 is $2 \times 2 \times 2 \times 3 \times 3 \times 3$



Hence, The prime factorization of 315 is $3 \times 3 \times 5 \times 7$



Hence, The prime factorization of 600 is $2 \times 2 \times 2 \times 3 \times 5 \times 5$



Hence, The prime factorization of 450 is $2 \times 3 \times 3 \times 5 \times 5$

2. (a)

2	120
2	60
2	30
3	15
5	5
	1

Prime factorization of 120 is 2, 2, 2, 3 and 5.

(b)

2	420
2	210
3	105
5	35
7	7
	1

Hence, prime factorization of 420 is 2, 2, 3, 5 and 7.

2	168
2	84
2	42
3	21
7	7
	1

Hence, prime factorization of 168 is 2, 2, 2, 3 and 7.

2	728
2	364
2	182
7	91
13	13
	1

Hence, Prime factorization of 728 is 2, 2, 2, 7 and 13.

3. (a) Multiples of 2 = 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 ... etc.

Multiples of 3 = 3, 6, 9, 12, 15, 18, 21, 24 ... etc.

First three common multiples of 2 and 3 = 6, 12, 18

- (b) Multiples of 4 = 4, 8, 12, 16, 20, 24, 28, 32 ... etc.

Multiples of 8 = 8, 16, 24, 32, 40 ... etc.

First three common multiples of 4 and 8 = 8, 16, 24.

- (c) Multiples of 9 = 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, 108 ... etc.

Multiples of 12 = 12, 24, 36, 48, 60, 72, 84, 96, 108 ... etc.

First three common multiples of 9 and 12 = 36, 72, 108

- F 1. (a) Factors of 12 = 1, 2, ③, 4, 6, 12

Factors of 15 = 1, ③, 5, 15

HCF of 12 and 15 is 3.

- (b) Factors of 16 = 1, 2, 4, ⑧, 16

Factors of 24 = 1, 2, 3, 4, 6, ⑧, 12, 24

HCF of 16 and 24 is 8.

- (c) Factors of 18 = 1, 2, 3, 6, ⑨, 18

Factors of 27 = 1, 3, ⑨, 27

HCF of 18 and 27 is 9.

- (d) Factors of 20 = 1, 2, 4, ⑤, 10, 20

Factors of 25 = 1, ⑤, 25

Factors of 30 = 1, 2, 3, ⑤, 6, 10, 15, 30

HCF of 20, 25 and 30 is 5.

- (e) Factors of 16 = 1, 2, 4, 8, ⑩, 16

Factors of 32 = 1, 2, 4, 8, ⑩, 16, 32

Factors of 48 = 1, 2, 3, 4, 6, 8, 12, ⑩, 16, 24, 48

HCF of 16, 32 and 48 is 16.

- (f) Factors of 21 = 1, ③, 7, 21

Factors of 24 = 1, 2, ③, 4, 6, 8, 12, 24

Factors of 36 = 1, 2, ③, 4, 6, 9, 12, 18, 36

HCF of 21, 24, and 36 is 3.

2. (a)	2	36	2	54
	2	18	3	27
	3	9	3	9
	3	3	3	3
		1		1

$$\begin{aligned} 36 &= 2 \times 2 \times \textcircled{3} \times \textcircled{3} \\ 54 &= 2 \times \textcircled{3} \times \textcircled{3} \times 3 \end{aligned}$$

HCF of 36 and 54 = 2 × 3 × 3 = 18

(b)	2	112	2	114
	2	56	3	57
	2	28	19	19
	2	14		1
	7	7		
		1		

$$112 = 2 \times 2 \times 2 \times 2 \times 7$$

$$114 = 2 \times 3 \times 19$$

HCF of 112 and 114 is 2.

(c)	3	135	2	180
	3	45	2	90
	3	15	3	45
	5	5	3	15
		1	5	5
				1

$$\begin{aligned} 135 &= 3 \times \textcircled{3} \times \textcircled{3} \times \textcircled{5} \\ 180 &= 2 \times 2 \times \textcircled{3} \times \textcircled{3} \times \textcircled{5} \end{aligned}$$

HCF of 135 and 180 = 3 × 3 × 5 = 45

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(d) $\begin{array}{r l} 2 & 100 \\ \hline 2 & 50 \\ \hline 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$	$\begin{array}{r l} 2 & 200 \\ \hline 2 & 100 \\ \hline 2 & 50 \\ \hline 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$	$\begin{array}{r l} 2 & 300 \\ \hline 2 & 150 \\ \hline 3 & 75 \\ \hline 5 & 25 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$
--	--	--

$$100 = 2 \times 2 \times 5 \times 5$$

$$200 = 2 \times 2 \times 2 \times 5 \times 5$$

$$300 = 2 \times 2 \times 3 \times 5 \times 5$$

$$\text{HCF of 100, 200 and 300} = 2 \times 2 \times 5 \times 5$$

$$= 100$$

(e) $\begin{array}{r l} 2 & 42 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$	$\begin{array}{r l} 3 & 63 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$	$\begin{array}{r l} 3 & 105 \\ \hline 5 & 35 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$
--	--	---

$$42 = 2 \times 3 \times 7$$

$$63 = 3 \times 3 \times 7$$

$$105 = 3 \times 5 \times 7$$

$$\text{HCF of 42, 63 and 105} = 3 \times 7$$

$$= 21$$

(f) $\begin{array}{r l} 2 & 144 \\ \hline 2 & 72 \\ \hline 2 & 36 \\ \hline 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array}$	$\begin{array}{r l} 2 & 180 \\ \hline 2 & 90 \\ \hline 3 & 45 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$	$\begin{array}{r l} 2 & 252 \\ \hline 2 & 126 \\ \hline 3 & 63 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$
---	---	--

$$144 = 2 \times 2 \times 2 \times 2 \times 3 \times 3$$

$$180 = 2 \times 2 \times 3 \times 3 \times 5$$

$$252 = 2 \times 2 \times 3 \times 3 \times 7$$

$$\text{HCF of 144, 180 and 252}$$

$$= 2 \times 2 \times 3 \times 3$$

$$= 36$$

3. (a) $96 \overline{)120}(1$

$$\begin{array}{r} 96 \\ \hline 24 \overline{)96}(4 \\ \hline 96 \\ \hline 0 \end{array}$$

Hence, The HCF of 96 and 120 is 24.

(b) $360 \overline{)456}(1$

$$\begin{array}{r} 360 \\ \hline 96 \overline{)360}(3 \\ \hline 288 \\ \hline 72 \overline{)96}(1 \\ \hline 72 \\ \hline 24 \overline{)72}(3 \\ \hline 72 \\ \hline 0 \end{array}$$

Hence, The HCF of 360 and 456 is 24.

(c) $225 \overline{)540}(2$

$$\begin{array}{r} 450 \\ \hline 90 \overline{)225}(2 \\ \hline 180 \\ \hline 45 \overline{)90}(2 \\ \hline 90 \\ \hline 0 \end{array}$$

Hence, HCF of 225 and 540 is 45.

(d) $45 \overline{)105}(2$

$$\begin{array}{r} 90 \\ \hline 15 \overline{)45}(3 \\ \hline 45 \\ \hline 0 \end{array}$$

Now, $15 \overline{)120}(8$

$$\begin{array}{r} 120 \\ \hline 0 \end{array}$$

Hence, The HCF of 45, 105 and 120 is 15.

(e) $690 \overline{)966}(1$

$$\begin{array}{r} 690 \\ \hline 276 \overline{)690}(2 \\ \hline 552 \\ \hline 138 \overline{)276}(2 \\ \hline 276 \\ \hline 0 \end{array}$$

Now, $138 \overline{)1150}(0$

$$\begin{array}{r} 1104 \\ \hline 46 \overline{)138}(3 \\ \hline 138 \\ \hline 0 \end{array}$$

Hence, The HCF of 690, 966 and 1150 is 46.

(f) $1085 \overline{)1435}(1$

$$\begin{array}{r} 1085 \\ \hline 350 \overline{)1085}(3 \\ \hline 1050 \\ \hline 35 \overline{)350}(10 \\ \hline 350 \\ \hline 0 \end{array}$$

3	405
3	135
3	45
3	15
5	5
	1

3	783
3	261
3	87
29	29
	1

3	513
3	171
3	57
19	19
	1

Factors of 405 = $3 \times 3 \times 3 \times 3 \times 5$
 Factors of 783 = $3 \times 3 \times 3 \times 29$
 Factors of 513 = $3 \times 3 \times 3 \times 19$
 Factors of 405, 783 and 513
 = $3 \times 3 \times 3 \times 3 \times 5 \times 19 \times 29$
 = 223155

Creative Approach

A. 1. (b) Two consecutive prime numbers that differ by 2 are known as twin primes.

2	10
5	5
	1

2	12
2	6
3	3
	1

Factors of 10 = 2×5
 Factors of 12 = $2 \times 2 \times 3$
 LCM of 10 and 20 = $2 \times 2 \times 3 \times 5$
 = 60

Hence, the smallest whole number that is divisible by 10 and 12 is 60

3. (b) Odd numbers are not multiples of 2 because 2 is an even number and multiples of even numbers are always even.
 4. (a) LCM of 12 and 18 = $2 \times 2 \times 3 \times 3$
 = 36

2	12, 18
2	6, 9
3	3, 9
3	1, 3
	1

Now, $36 \times 14 = 504$
 $5004 < 504$

So, $36 \times 13 = 468$
 Hence, The greatest number of stamps that can have if they are fewer than 500 is 468.

5. (c) The LCM of two co-prime numbers is their quotient.

B. Do it yourself.

C. 1. Given, LCM = 84
 also, HCF = 3
 also, First number = 21
 Other number = $\frac{\text{LCM} \times \text{HCF}}{\text{First number}}$
 = $\frac{84 \times 3}{21}$
 = 4×3
 = 12

Hence, The other number is 12.

2. Given, product of two numbers = 486
 also, LCM = 54
 HCF = $\frac{\text{Product of two numbers}}{\text{LCM}}$
 = $\frac{486}{54}$

Hence, Their HCF is 9.

D. LCM of 15, 25, 40 and 50 = $5 \times 2 \times 3 \times 4 \times 5$
 = 600 seconds
 = $\frac{600}{60}$ minutes
 = 10 minutes

5	15, 25, 40, 50
2	3, 5, 8, 10
3	3, 5, 4, 5
4	1, 5, 4, 5
5	1, 5, 1, 5
	1, 1, 1, 1

Hence, They will meet again at the same point after 10 minutes.

E. Do it yourself



CHAPTER-5
Fractions

- A. 1. $\frac{2 \div 2}{10 \div 2} = \frac{1}{5}$ 2. $\frac{4 \div 2}{10 \div 2} = \frac{2}{5}$
 3. $\frac{3 \div 3}{6 \div 3} = \frac{1}{2}$ 4. $\frac{4 \div 2}{12 \div 2} = \frac{2}{6}$
 = $\frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

$$5. \frac{7 \div 7}{14 \div 7} = \frac{1}{2} \qquad 6. \frac{2 \div 2}{20 \div 2} = \frac{1}{10}$$

$$7. \frac{3 \div 3}{9 \div 3} = \frac{1}{3} \qquad 8. \frac{6 \div 3}{9 \div 3} = \frac{2}{3}$$

$$9. \frac{8 \div 2}{10 \div 2} = \frac{4}{5} \qquad 10. \frac{5 \div 5}{15 \div 5} = \frac{1}{3}$$

$$11. \frac{8 \div 8}{72 \div 8} = \frac{1}{9} \qquad 12. \frac{5 \div 5}{20 \div 5} = \frac{1}{4}$$

B. 1. $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$
 $= \frac{2 \div 2}{4 \div 2} = \frac{1}{2}$

2. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$

3. $\frac{2}{6} + \frac{2}{6} = \frac{4}{6}$
 $= \frac{4 \div 2}{6 \div 2} = \frac{2}{3}$

4. $\frac{1}{9} + \frac{2}{9} = \frac{3}{9}$
 $= \frac{3 \div 3}{9 \div 3} = \frac{1}{3}$

5. $\frac{1}{2} - \frac{2}{8} = \frac{1 \times 4}{2 \times 4} - \frac{2}{8}$
 $= \frac{4}{8} - \frac{2}{8} = \frac{2}{8}$
 $= \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$

6. $\frac{1}{6} - \frac{1}{12} = \frac{1 \times 2}{6 \times 2} - \frac{1}{12}$
 $= \frac{2}{12} - \frac{1}{12} = \frac{1}{12}$

7. $\frac{2}{3} - \frac{1}{6} = \frac{2 \times 2}{3 \times 2} - \frac{1}{6}$
 $= \frac{4}{6} - \frac{1}{6} = \frac{3}{6}$
 $= \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$

8. $\frac{6}{7} - \frac{4}{7} = \frac{2}{7}$

9. $\frac{1}{2} + \frac{1}{2} = \frac{2}{2}$
 Now, $= \frac{2}{2} - \frac{4}{9}$
 $= \frac{2 \times 9}{2 \times 9} - \frac{4 \times 2}{9 \times 2}$
 $= \frac{18}{18} - \frac{8}{18} = \frac{10}{18}$
 $= \frac{10 \div 2}{18 \div 2} = \frac{5}{9}$

10. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$
 Now, $= \frac{2}{3} - \frac{1}{6}$
 $= \frac{2 \times 2}{3 \times 2} - \frac{1}{6}$
 $= \frac{4}{6} - \frac{1}{6} = \frac{3}{6}$
 $= \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$

C. 1.

$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$	
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Hence, $\frac{2}{3} \leq \frac{5}{6}$

2.

$\frac{1}{2}$					$\frac{1}{2}$				
$\frac{1}{10}$									

Hence, $\frac{1}{2} \geq \frac{3}{10}$

3.

$\frac{1}{8}$							
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	

Hence, $\frac{6}{8} \equiv \frac{3}{4}$

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4.

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$
$\frac{1}{2}$			$\frac{1}{2}$		

Hence, $\frac{6}{5} \squareq \frac{1}{2}$

D. 1. $5\frac{2}{6} = \frac{(5 \times 6) + 2}{6}$
 $= \frac{30 + 2}{6} = \frac{32}{6}$

$4\frac{2}{6} = \frac{(4 \times 6) + 2}{6}$
 $= \frac{24 + 2}{6} = \frac{26}{6}$

Now, $\frac{32}{6} + \frac{26}{6} = \frac{58}{6}$

$\frac{58 \div 2}{6 \div 2} = \frac{29}{3}$

2. $6\frac{1}{4} = \frac{(6 \times 4) + 1}{4}$
 $= \frac{24 + 1}{4} = \frac{25}{4}$

$1\frac{1}{4} = \frac{(1 \times 4) + 1}{4}$
 $= \frac{4 + 1}{4} = \frac{5}{4}$

Now, $\frac{25}{4} + \frac{5}{4} = \frac{30}{4}$
 $= \frac{30 \div 2}{4 \div 2} = \frac{15}{2}$

3. $3\frac{2}{10} = \frac{(3 \times 10) + 2}{10}$
 $= \frac{30 + 2}{10} = \frac{32}{10}$

$5\frac{3}{10} = \frac{(5 \times 10) + 3}{10}$
 $= \frac{50 + 3}{10} = \frac{53}{10}$

Now, $\frac{32}{10} + \frac{53}{10} = \frac{85}{10}$

$\frac{85 \div 5}{10 \div 5} = \frac{17}{2}$

4. $3\frac{2}{8} = \frac{(3 \times 8) + 2}{8}$

$\frac{24 + 2}{8} = \frac{26}{8}$

$6\frac{4}{8} = \frac{(6 \times 8) + 4}{8}$

$= \frac{48 + 4}{8} = \frac{52}{8}$

Now, $\frac{26}{8} + \frac{52}{8} = \frac{78}{8}$

$= \frac{78 \div 2}{8 \div 2} = \frac{39}{4}$

5. $3\frac{2}{9} = \frac{(3 \times 9) + 2}{9}$
 $= \frac{27 + 2}{9} = \frac{29}{9}$

$1\frac{1}{9} = \frac{(1 \times 9) + 1}{9}$

$= \frac{9 + 1}{9} = \frac{10}{9}$

Now, $\frac{29}{9} + \frac{10}{9} = \frac{39}{9}$

$= \frac{39 \div 3}{9 \div 3} = \frac{13}{3}$

E. Apple pies ate by Tanuj's family = $1\frac{2}{8}$

Cherry pies ate by susie's family = $1\frac{4}{8}$

Total pies ate by both families = $1\frac{2}{8} + 1\frac{4}{8}$

$= \frac{(1 \times 8) + 2}{8} + \frac{(1 \times 8) + 4}{8}$

$= \frac{8 + 2}{8} + \frac{8 + 4}{8}$

$$= \frac{10}{8} + \frac{12}{8} = \frac{22}{8}$$

$$= \frac{22 \div 2}{8 \div 2} = \frac{11}{4}$$

Hence both families ate $\frac{11}{4}$ pies.

Creative Approach

A. 1. (b) $\frac{4 \div 4}{20 \div 4} = \frac{1}{5}$

Hence, The simplest form of $\frac{4}{20}$ is $\frac{1}{5}$.

2. (d) $\frac{2}{5}$ and $\frac{3}{5}$ are like fractions.

[Because the denominator is greater than
numerator in both $\frac{2}{5}$ and $\frac{3}{5}$]

3. (a) 1 minute = 60 seconds

So, $\frac{1}{60}$ minute = 1 second

Hence, $\frac{1}{60}$ of a minute is 1 second.

4. (c) $1\frac{3}{7} = \frac{(1 \times 7) + 3}{7}$

$$= \frac{7 + 3}{7} = \frac{10}{7}$$

Reciprocal of $\frac{10}{7} = \frac{7}{10}$

Hence, Reciprocal of $1\frac{3}{7}$ is $\frac{7}{10}$.

B. $\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$

$$= \frac{8}{2}$$

$$= \frac{8 \div 2}{2 \div 2} = \frac{4}{1}$$

$$= 4$$

C. 1. The weight of the drum with rice = 40 kg

Weight of empty drum = $13\frac{3}{4}$ kg

$$= \frac{(13 \times 4) + 3}{4}$$

$$= \frac{52 + 3}{4}$$

$$= \frac{55}{4} \text{ kg}$$

Weight of rice in the drum = $40 - \frac{55}{4}$

$$= \frac{40 \times 4}{1 \times 4} - \frac{55}{4}$$

$$= \frac{160}{4} - \frac{55}{4}$$

$$= \frac{105}{4}$$

$$= 26\frac{1}{4} \text{ kg}$$

$$\begin{array}{r} 4 \overline{)105} \overline{)26} \\ - 8 \\ \hline 25 \\ 24 \\ \hline 1 \\ \hline = 26\frac{1}{4} \end{array}$$

Hence, The weight of rice in drum is $26\frac{1}{4}$ kg.

2. Total distance covered in one day

$$= 47\frac{1}{2} \text{ km}$$

$$= \frac{(47 \times 2) + 1}{2} \text{ km}$$

$$= \frac{95}{2} \text{ km}$$

Distance covered by bus = $29\frac{1}{3}$ km

$$= \frac{(29 \times 3) + 1}{3}$$

$$= \frac{88}{3} \text{ km}$$

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$$\begin{aligned} \text{Distance covered by horse cart} &= 8\frac{5}{6} \text{ km} \\ &= \frac{(8 \times 6) + 5}{6} \\ &= \frac{53}{6} \text{ km} \end{aligned}$$

Now, Distance covered by foot

$$\begin{aligned} &= \frac{95}{2} - \left(\frac{88}{3} + \frac{53}{6} \right) \\ &= \frac{95 \times 3}{2 \times 3} - \left(\frac{88 \times 2}{3 \times 2} + \frac{53}{6} \right) \\ &= \frac{285}{6} - \left(\frac{176}{6} + \frac{53}{6} \right) \\ &= \frac{285}{6} - \frac{229}{6} \\ &= \frac{56}{6} \\ &= \frac{56 \div 2}{6 \div 2} \\ &= \frac{28}{3} \text{ km} \end{aligned}$$

Hence, he travelled $\frac{28}{3}$ km on foot.

D. 1. Water needed for 200 g = $3\frac{1}{2}$ cups

$$\begin{aligned} &= \frac{(3 \times 2) + 1}{2} \text{ cups} \\ &= \frac{7}{2} \text{ cups} \end{aligned}$$

Water needed for 1 g = $\frac{7}{2 \times 200}$ cups

Water needed for 500 g = $\frac{7 \times 500}{2 \times 200}$ cups

$$= \frac{35}{4} = 8\frac{3}{4} \text{ cups}$$

$$\begin{array}{r} 4 \overline{)35} \overline{)8} \\ \underline{32} \\ 3 \end{array}$$

Hence, $8\frac{3}{4}$ cups of water is needed for a packet of 500 g.

2. Mixture for 4 persons = 200 g

$$\text{Mixture for 1 person} = \frac{200}{4} = 50 \text{ g}$$

Mixture for 15 persons = $50 \times 15 = 750$ g

Hence, The weight of the mixture will be 750 g.

E. Do it yourself

□□

CHAPTER-6
Decimals

A. 1. (a) $\frac{51}{100}$

$$\begin{array}{r} 100 \overline{)510} \overline{)0.51} \\ \underline{-500} \\ 100 \\ \underline{-100} \\ 0 \end{array}$$

Hence, $\frac{51}{100} = 0.51$

(b) $\frac{5}{10}$

$$\begin{array}{r} 10 \overline{)50} \overline{)0.5} \\ \underline{-50} \\ 0 \end{array}$$

Hence, $\frac{5}{10} = 0.5$

(c) $\frac{63}{100}$

$$\begin{array}{r} 100 \overline{)630} \overline{)0.63} \\ \underline{-600} \\ 300 \\ \underline{-300} \\ 0 \end{array}$$

Hence, $\frac{63}{100} = 0.63$

(d) $\frac{92}{100}$

$$\begin{array}{r} 100 \overline{)920} \overline{)0.92} \\ \underline{-900} \\ 200 \\ \underline{-200} \\ 0 \end{array}$$

Hence, $\frac{92}{100} = 0.92$

2. (a) 0.25

$$= \frac{25}{100}$$

$$= \frac{25 \div 25}{100 \div 25} = \frac{1}{4}$$

Hence, $0.25 = \frac{1}{4}$

(b) 0.4

$$= \frac{4}{10}$$

$$= \frac{4 \div 2}{10 \div 2} = \frac{2}{5}$$

Hence, $0.4 = \frac{2}{5}$

(c) 0.40

$$= \frac{40}{100}$$

$$= \frac{40 \div 20}{100 \div 20} = \frac{2}{5}$$

Hence, $0.40 = \frac{2}{5}$

(d) 0.85

$$= \frac{85}{100}$$

$$= \frac{85 \div 5}{100 \div 5} = \frac{17}{20}$$

Hence, $0.85 = \frac{17}{20}$

3. (a) $\frac{25}{100}$

$$100 \overline{)250} (0.25$$

$$\begin{array}{r} -200 \\ \hline 500 \\ -500 \\ \hline 0 \end{array}$$

Hence, $\frac{25}{100} = 0.25$

(b) 0.15

$$= \frac{15}{100}$$

$$= \frac{15 \div 5}{100 \div 5} = \frac{3}{20}$$

Hence, $0.15 = \frac{3}{20}$

(c) 0.94

$$= \frac{94}{100}$$

$$= \frac{94 \div 2}{100 \div 2} = \frac{47}{50}$$

Hence, $0.94 = \frac{47}{50}$

(d) $\frac{55}{100}$

$$100 \overline{)550} (0.55$$

$$\begin{array}{r} -500 \\ \hline 500 \\ -500 \\ \hline 0 \end{array}$$

Hence, $\frac{55}{100} = 0.55$

4. (a) $\frac{73}{100}$

$$100 \overline{)730} (0.73$$

$$\begin{array}{r} -700 \\ \hline 300 \\ -300 \\ \hline 0 \end{array}$$

Hence, $\frac{73}{100} = 0.73$

(b) $\frac{82}{100}$

$$100 \overline{)820} (0.82$$

$$\begin{array}{r} -800 \\ \hline 200 \\ -200 \\ \hline 0 \end{array}$$

Hence, $\frac{82}{100} = 0.82$

(c) $\frac{7}{10}$

$$\begin{array}{r} 10 \overline{)70} (0.7 \\ -70 \\ \hline 0 \end{array}$$

Hence, $\frac{7}{10} = 0.7$

(d) 0.3

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

Hence, $0.3 = \frac{3}{10}$

5. (a) 0.6

$$= \frac{6}{10}$$

$$= \frac{6 \div 2}{10 \div 2} = \frac{3}{5}$$

Hence, $0.6 = \frac{3}{5}$

(b) 0.45

$$= \frac{45}{100}$$

$$= \frac{45 \div 5}{100 \div 5} = \frac{9}{20}$$

Hence, $0.45 = \frac{9}{20}$

(c) 0.95

$$= \frac{95}{100}$$

$$= \frac{95 \div 5}{100 \div 5} = \frac{19}{20}$$

Hence, $0.95 = \frac{19}{20}$

(d) $\frac{64}{100}$

$$\begin{array}{r} 100 \overline{)640} (0.64 \\ -600 \\ \hline 400 \\ -400 \\ \hline 0 \end{array}$$

Hence, $\frac{64}{100} = 0.64$

B. 1.

Fraction = $\frac{1}{10}$

Decimal = 0.1

$$\begin{array}{r} 10 \overline{)10} (0.1 \\ -10 \\ \hline 0 \end{array}$$

2.

Fraction = $\frac{1}{10}$

Decimal = 0.1

$$\begin{array}{r} 10 \overline{)10} (0.1 \\ -10 \\ \hline 0 \end{array}$$

3.

Fraction = $\frac{4}{10}$

Decimal = 0.4

$$\begin{array}{r} 10 \overline{)40} (0.4 \\ -40 \\ \hline 0 \end{array}$$

4.

Fraction = $\frac{6}{10}$

Decimal = 0.6

$$\begin{array}{r} 10 \overline{)60} (0.6 \\ -60 \\ \hline 0 \end{array}$$

C. 1.

$$\begin{array}{r} 100 \overline{)400} (0.04 \\ -400 \\ \hline 0 \end{array}$$

Hence, $\frac{4}{100} = 0.04$

2.

$$\frac{9}{100}$$

$$\begin{array}{r} 100 \overline{)900} (0.09 \\ -900 \\ \hline 0 \end{array}$$

Hence, $\frac{9}{100} = 0.09$

3.

$$\frac{5}{100}$$

$$\begin{array}{r} 100 \overline{)500} (0.05 \\ -500 \\ \hline 0 \end{array}$$

- Hence, $\frac{5}{100} = 0.05$
4. $\frac{8}{100}$
 $100 \overline{)800} (0.08$
 $\underline{-800}$
 $\underline{0}$
- Hence, $\frac{8}{100} = 0.08$
5. $\frac{1}{100}$
 $100 \overline{)100} (0.01$
 $\underline{-100}$
 $\underline{0}$
- Hence, $\frac{1}{100} = 0.01$
6. $\frac{2}{100}$
 $100 \overline{)200} (0.02$
 $\underline{-200}$
 $\underline{0}$
- Hence, $\frac{2}{100} = 0.02$
7. $\frac{7}{100}$
 $100 \overline{)700} (0.07$
 $\underline{-700}$
 $\underline{0}$
- Hence, $\frac{7}{100} = 0.07$
8. $\frac{6}{100}$
 $100 \overline{)600} (0.06$
 $\underline{-600}$
 $\underline{0}$
- Hence, $\frac{6}{100} = 0.06$
- D. 1. 0.05
 $= \frac{5}{100}$
 $= \frac{5 \div 5}{100 \div 5} = \frac{1}{20}$

- Hence, $0.05 = \frac{1}{20}$
2. 0.01
 $= \frac{1}{100}$
- Hence, $0.01 = \frac{1}{100}$
3. 0.08
 $= \frac{8}{100}$
 $= \frac{8 \div 4}{100 \div 4} = \frac{2}{25}$
- Hence, $0.08 = \frac{2}{25}$
- E. 1. (a) 8 (b) 2
(c) 3 (d) 9
2. (a) 2 (b) 3
(c) 2 (d) 9
3. (a) 1 (b) 8
(c) 2 (d) 5
4. (a) 1 (b) 2
(c) 4 (d) 3
5. (a) 2 (b) 6
(c) 8 (d) 1
- F. 1. 0.910; 10.819; 89.637; 142.800
2. 12.010; 180.300; 1446.105; 180.190
3. 15.13; 2196.10; 18.30; 0.10
4. 80.12; 41.00; 92.10; 18.96
5. 33.300; 34.010; 89.435; 41.020
6. 43.040; 94.300; 101.432
- G. 1. 0.33 \leq 0.43 2. 0.10 \leq 0.83
3. 0.25 \geq 0.21 4. 0.1 \leq 0.5
5. 0.2 \leq 0.5 6. 0.9 \geq 0.3
7. 3.3 \geq 2.3 8. 6.4 \leq 8.6
9. 7.8 \leq 9.7 10. 1.21 \leq 5.10
11. 7.88 $=$ 7.88 12. 5.01 \geq 2.10
- H. 1. The least to the greatest (Ascending order)
0.7 1.5 3.2 3.4 6.9 8.6
2. The least to the greatest (Ascending order)
2.3 4.1 5.1 6.8 7 9.6
- I. 1. $\begin{array}{r} 3.4 \\ + 6.7 \\ \hline 10.1 \end{array}$
Hence, $3.4 + 6.7 = 10.1$

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2.
$$\begin{array}{r} 12.8 \\ + 9.0 \\ \hline 21.8 \end{array}$$
 Hence, $12.8 + 9 = 21.8$
3.
$$\begin{array}{r} 23.2 \\ + 38.5 \\ \hline 61.7 \end{array}$$
 Hence, $23.2 + 38.5 = 61.7$
4.
$$\begin{array}{r} 10.0 \\ + 0.7 \\ \hline 10.7 \end{array}$$
 Hence, $10 + 0.7 = 10.7$
5.
$$\begin{array}{r} 47.5 \\ + 61.8 \\ \hline 109.3 \end{array}$$
 Hence, $47.5 + 61.8 = 109.3$
6.
$$\begin{array}{r} 18.0 \\ + 4.8 \\ \hline 22.8 \end{array}$$
 Hence, $18 + 4.8 = 22.8$
7.
$$\begin{array}{r} 33.5 \\ + 7.6 \\ \hline 41.1 \end{array}$$
 Hence, $33.5 + 7.6 = 41.1$
8.
$$\begin{array}{r} 68.0 \\ + 12.3 \\ \hline 80.3 \end{array}$$
 Hence, $68 + 12.3 = 80.3$
9.
$$\begin{array}{r} 19.5 \\ + 19.5 \\ \hline 39.0 \end{array}$$
 Hence, $19.5 + 19.5 = 39$
10.
$$\begin{array}{r} 172.0 \\ + 17.2 \\ \hline 189.2 \end{array}$$
 Hence, $172 + 17.2 = 189.2$
11.
$$\begin{array}{r} 23.3 \\ + 4.4 \\ \hline 27.7 \end{array}$$
 Hence, $23.3 + 4.4 = 27.7$
12.
$$\begin{array}{r} 101.0 \\ + 110.1 \\ \hline 211.1 \end{array}$$
 Hence, $101 + 110.1 = 211.1$

Maths Stories

1. Milk in the pot = 4.5 l
Cook stirs the chocolate paste = 2.5 l

- Cook stirs water = 1.2 l
Liquid in the pot = 4.5 + 2.5 + 1.2
= 8.2 l
- $$\begin{array}{r} 4.5 \\ 2.5 \\ + 1.2 \\ \hline 8.2 \end{array}$$
- Hence, There is 8.2 litres of liquid in the pot.
2. The cook took out the butter = 54.8 g
Butter more than need = 6.9 g
Butter needed by the cook = 54.8 - 6.9
= 47.9 g
- $$\begin{array}{r} 54.8 \\ - 6.9 \\ \hline 47.9 \end{array}$$
- Hence, He need 47.9 g of butter.
3. Time taken to kneaded the dough = 0.7 hours
Time taken to rest the dough = 1.6 hours
Time taken to baked the bough = 0.4 hours
Total time taken to make dinner rolls
= 0.7 + 1.6 + 0.4
= 2.7 hours
- $$\begin{array}{r} 0.7 \\ 1.6 \\ + 0.4 \\ \hline 2.7 \end{array}$$
- Hence, it will take 2.7 hours to make each batch of dinner rolls.
4. Tof flour in the bag = 19.3 cups
Flour used for making cookies = 2.9 cups
Flour used for making banana bread = 5.1 cups
Total flour used = 2.9 + 5.1
= 8.0 cups
- $$\begin{array}{r} 2.9 \\ + 5.1 \\ \hline 8.0 \end{array}$$
- Now, Quantity of flour remaining = 19.3 - 8.0
= 11.3 cups
- $$\begin{array}{r} 19.3 \\ + 8.0 \\ \hline 11.3 \end{array}$$
- Hence, 11.3 cups of flour is left.
5. Water in big pot = 3.7 cups
Water in smaller pot = 7.3 cups
Now 7.3 > 3.7
Hence, smaller pot has more water.

- J. 1.
$$\begin{array}{r} 3.7 \\ \times 0.4 \\ \hline 148 \\ + 000 \\ \hline 1.48 \end{array}$$

Hence, $3.7 \times 0.4 = 1.48$
2.
$$\begin{array}{r} 18.7 \\ \times 6 \\ \hline 112.2 \end{array}$$

Hence, $18.7 \times 6 = 112.2$
3.
$$\begin{array}{r} 81.9 \\ \times 0.5 \\ \hline 4095 \\ + 0000 \\ \hline 40.95 \end{array}$$

Hence, $81.9 \times 0.5 = 40.95$
4.
$$\begin{array}{r} 9.9 \\ \times 0.8 \\ \hline 792 \\ + 000 \\ \hline 7.92 \end{array}$$

Hence, $9.9 \times 0.8 = 7.92$
5.
$$\begin{array}{r} 47.12 \\ \times 3 \\ \hline 141.36 \end{array}$$

Hence, $47.12 \times 3 = 141.36$
6.
$$\begin{array}{r} 10.3 \\ \times 2 \\ \hline 20.6 \end{array}$$

Hence, $10.3 \times 2 = 20.6$
7.
$$\begin{array}{r} 7.11 \\ \times 9 \\ \hline 63.99 \end{array}$$

Hence, $7.11 \times 9 = 63.99$
8.
$$\begin{array}{r} 8.2 \\ \times 0.3 \\ \hline 246 \\ + 000 \\ \hline 24.6 \end{array}$$

Hence, $82 \times 0.3 = 24.6$
9.
$$\begin{array}{r} 4.2 \\ \times 0.7 \\ \hline 294 \\ + 000 \\ \hline 2.94 \end{array}$$

Hence, $4.2 \times 0.7 = 2.94$

10.
$$\begin{array}{r} 15.9 \\ \times 0.8 \\ \hline 1272 \\ + 0000 \\ \hline 12.72 \end{array}$$

Hence, $15.9 \times 0.8 = 12.72$
11.
$$\begin{array}{r} 5.55 \\ \times 5 \\ \hline 27.75 \end{array}$$

Hence, $5.55 \times 5 = 27.75$
12.
$$\begin{array}{r} 8.8 \\ \times 0.8 \\ \hline 704 \\ + 000 \\ \hline 70.4 \end{array}$$

Hence, $88 \times 0.8 = 70.4$
- K. 1. $8.1 \times 1,000 = 8,100$
2. $4.023 \times 1,000 = 4,023$
3. $6.77 \times 100 = 677$
4. $0.343 \times 100 = 34.3$
5. $7.2 \times 10 = 72$
6. $6.4 \times 1,000 = 6,400$
7. $9.06 \times 1,000 = 9,060$
8. $6.2 \times 100 = 620$
9. $4.651 \times 100 = 465.1$
10. $7.264 \times 10 = 72.64$

Maths Stories

1. Total money Jain had = ₹ 20.00
Money spent to buy board game = ₹ 8.49
Money spent to buy book = ₹ 3.25
Total money spent = $8.49 + 3.25$
 $= ₹ 11.74$
- $$\begin{array}{r} 8.49 \\ + 3.25 \\ \hline 11.74 \end{array}$$
- Money left with him = $20.00 - 11.74$
 $= ₹ 8.26$
- $$\begin{array}{r} 20.00 \\ - 11.74 \\ \hline 8.26 \end{array}$$
- Hence, He has ₹ 8.26 left with him.
2. Time take by meera for a milimeter = 9.5 minutes
Time taken by Tera for a milimeter = 8.8 minutes

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Difference between their records = $9.5 - 8.8$
 $= 0.7$ minutes

$$\begin{array}{r} 9.5 \\ - 8.8 \\ \hline 0.7 \end{array}$$

Hence, The difference in their running records is 0.7 minutes.

3. Cost of purse = ₹ 55.99
 Money Ravi has = ₹ 32.80
 Money Arun has = ₹ 15.90
 Total money of Ravi and Arun
 $= 32.80 + 15.90$
 $= ₹ 48.70$

More money do they need = $55.99 - 48.70$
 $= ₹ 7.29$

$$\begin{array}{r} 32.80 \\ + 15.90 \\ \hline 48.70 \end{array} \quad \begin{array}{r} 55.99 \\ - 48.70 \\ \hline 7.29 \end{array}$$

Hence, They need ₹ 7.29 more to buy the purse for their mom.

4. Apples picked by Kiran = 4.25 kg
 Apples picked by Kishan = 3.8 kg
 Apples picked by Sheela = 5.75 kg
 Total apples picked by them
 $= 4.25 + 3.8 + 5.75$
 $= 13.80$ kg

$$\begin{array}{r} 4.25 \\ 3.80 \\ + 5.75 \\ \hline 13.80 \end{array}$$

Hence, They picked 13.80 kg at apples in all.

5. The owner has candies = 7.11 kg
 Total number of jars = 9
 Candies in each jar = $7.11 \div 9$
 $= 0.79$ kg

$$\begin{array}{r} 9 \overline{)7.11} (0.79 \\ - 63 \\ \hline 81 \\ - 81 \\ \hline 0 \end{array}$$

Hence, Each jar will contain 0.79 kg of candies

6. Amount of Loan = ₹ 19,061
 Total months for payment = 36
 Payment will made for each month
 $= 19061 \div 36$
 $= ₹ 529.47$
 $= ₹ 529$ (approx)

$$\begin{array}{r} 36 \overline{)19061} (529.47 \\ - 180 \\ \hline 106 \\ - 72 \\ \hline 341 \\ - 324 \\ \hline 170 \\ 144 \\ \hline 260 \\ - 252 \\ \hline 8 \end{array}$$

Hence, Parul will pay ₹ 529 each month.

7. Total distance covered = 956.4 km
 Total time taken = 15.9 hours
 Average speed of car = $\frac{\text{Distance}}{\text{Time}}$
 $= \frac{956.4}{15.9}$
 $= 60.15$
 $= 60.2$ km/h

$$\begin{array}{r} 159 \overline{)956.4} (60.15 \\ - 954 \\ \hline 240 \\ - 159 \\ \hline 810 \\ - 795 \\ \hline 15 \end{array}$$

Hence, The average speed of the car is 60.2 km/h

Creative approach

- A. 1. (b) The decimal number for "one and four tenths" is 1.4.
 2. (a) The decimal number for "sixty seven and twenty three on hundredths is 67.23.
 3. (c) $2\frac{1}{2}$

$$\begin{aligned} &= \frac{(2 \times 2) + 1}{2} \\ &= \frac{4 + 1}{2} \\ &= \frac{5}{2} \end{aligned}$$

$$\begin{array}{r} 2 \overline{)5(2.5} \\ -4 \\ \hline 10 \\ -10 \\ \hline 0 \end{array} = 2.5$$

Hence, The decimal number for $2\frac{1}{2}$ is 2.5

4. (a) Decimal number for "12.76" rounded to the nearest tenth is 12.8.
 5. (d) Cost of 12 garlands = ₹ 12.12
 Cost of 1 garland = $12.2 \div 12$
 = ₹ 1.01 (approx)

$$\begin{array}{r} 12 \overline{)12.2(0.016} \\ -12 \\ \hline 020 \\ -12 \\ \hline 80 \\ 72 \\ \hline 8 \end{array}$$

Hence, cost of each garland is ₹ 1.01.

- B. 1. Diesel consumed in 1 hour = 2.835 litres
 Diesel consumed in 24 hours = 24×2.835
 = 68.040 litres

$$\begin{array}{r} 2.835 \\ \times 24 \\ \hline 11340 \\ + 56700 \\ \hline 68.040 \end{array}$$

Hence, 68.040 litres of diesel is required to run the generator for 24 hours.

2. Total cloth = 67.6 m
 Cloth required for 1 curtain = 2.6 m
 Number of curtains she can make
 = $67.6 \div 2.6$
 = 26

$$\begin{array}{r} 26 \overline{)676(26} \\ -52 \\ \hline 156 \\ -156 \\ \hline 0 \end{array}$$

Hence, she can make 26 curtains.

- C. Total weight of three boys = 157.80 kg
 Weight of first boy = 96.7 kg
 Weight of second boy = 41.05 kg
 Total weight of two boys = $96.7 + 41.05$
 = 137.75 kg

$$\begin{array}{r} 96.70 \\ -41.05 \\ \hline 137.75 \end{array}$$

Now, weight of Third boy = $157.80 - 137.75$
 = 20.05 kg

$$\begin{array}{r} 157.80 \\ -137.75 \\ \hline 20.05 \end{array}$$

Hence, The weight of third boy is 20.05 kg.

- D. Do it yourself □□

CHAPTER-7 Percentage

- A. 1. $23\% = \frac{23}{100}$ 2. $7\% = \frac{7}{100}$
 3. $83\% = \frac{83}{100}$ 4. $71\% = \frac{71}{100}$
 5. $59\% = \frac{59}{100}$ 6. $67\% = \frac{67}{100}$

- B. 1. $\frac{98}{100}$
 = $\frac{98}{100} \times 100\%$
 = 98%

2. $\frac{2}{100}$
 = $\frac{2}{100} \times 100\%$
 = 2%

3. $\frac{30}{100}$
 = $\frac{30}{100} \times 100\%$
 = 30%

4. $\frac{54}{100}$
 = $\frac{54}{100} \times 100\%$
 = 54%

5. $\frac{78}{100}$

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$$= \frac{78}{100} \times 100\%$$

$$= 78\%$$

6. $\frac{99}{100}$

$$= \frac{99}{100} \times 100\%$$

$$= 99\%$$

C. Number of eggs he bought = 100
 Number of eggs were cracked = 7
 Number of eggs not cracked = $100 - 7 = 93$
 Percentage of eggs not cracked

$$= \frac{\text{No. of eggs not cracked}}{\text{Total eggs}} \times 100\%$$

$$= \frac{93}{100} \times 100\%$$

$$= 93\%$$

Hence, 93% of eggs were not cracked.

D. 1. $\frac{24}{50}$

$$= \frac{24}{50} \times 100\%$$

$$= 48\%$$

2. $\frac{48}{50}$

$$= \frac{48}{50} \times 100\%$$

$$= 96\%$$

3. $\frac{15}{50}$

$$= \frac{15}{50} \times 100\%$$

$$= 30\%$$

4. $\frac{31}{50}$

$$= \frac{31}{50} \times 100\%$$

$$= 62\%$$

5. $\frac{23}{25}$

$$= \frac{23}{25} \times 100\%$$

6. $\frac{21}{25}$ = 92%

$$= \frac{21}{25} \times 100\%$$

$$= 84\%$$

7. $\frac{18}{25}$

$$= \frac{18}{25} \times 100\%$$

$$= 72\%$$

8. $\frac{24}{25}$

$$= \frac{24}{25} \times 100\%$$

$$= 96\%$$

E. 1. 95%

$$= \frac{95}{100}$$

$$= \frac{95 \div 5}{100 \div 5} = \frac{19}{20}$$

2. 40%

$$= \frac{40}{100}$$

$$= \frac{40 \div 20}{100 \div 20} = \frac{2}{5}$$

3. 75%

$$= \frac{75}{100}$$

$$= \frac{75 \div 25}{100 \div 25} = \frac{3}{4}$$

4. 35%

$$= \frac{35}{100}$$

$$= \frac{35 \div 5}{100 \div 5} = \frac{7}{20}$$

5. 55%

$$= \frac{55}{100}$$

$$= \frac{55 \div 5}{100 \div 5} = \frac{11}{20}$$

6. 90%

$$= \frac{90}{100}$$

$$= \frac{90 \div 10}{100 \div 10} = \frac{9}{10}$$

7. 45%

$$= \frac{45}{100}$$

$$= \frac{45 \div 5}{100 \div 5} = \frac{9}{20}$$

8. 15%

$$= \frac{15}{100}$$

$$= \frac{15 \div 5}{100 \div 5} = \frac{3}{20}$$

F 1. 2.5

$$= 2.5 \times 100\%$$

$$= 250\%$$

2. 0.04

$$= 0.04 \times 100\%$$

$$= 4\%$$

3. 0.002

$$= 0.002 \times 100\%$$

$$= 0.2\%$$

4. 3.53

$$= 3.53 \times 100\%$$

$$= 353\%$$

5. 0.75

$$= 0.75 \times 100\%$$

$$= 75\%$$

G. 1. 0.02%

$$= \frac{2}{10000}$$

$$10000 \overline{)20000} (0.0002$$

$$\underline{-20000}$$

$$0$$

$$= 0.0002$$

2. 125%

$$= \frac{125}{100}$$

$$100 \overline{)125} (1.25$$

$$\underline{-100}$$

$$250$$

$$\underline{-200}$$

$$500$$

$$\underline{500}$$

$$0$$

$$= 1.25$$

3. $\frac{13}{2}\%$

$$= \frac{13}{200}$$

$$200 \overline{)1300} (0.065$$

$$\underline{-1200}$$

$$1000$$

$$\underline{-1000}$$

$$0$$

$$= 0.065$$

4. $\frac{11}{4}\%$

$$= \frac{11}{400}$$

$$400 \overline{)1100} (0.0275$$

$$\underline{-800}$$

$$3000$$

$$\underline{-2800}$$

$$2000$$

$$\underline{-2000}$$

$$0$$

$$= 0.0275$$

5. 12.5%

$$= \frac{125}{1000}$$

$$100 \overline{)1250} (0.125$$

$$\underline{-1000}$$

$$2500$$

$$\underline{-2000}$$

$$5000$$

$$\underline{-5000}$$

$$0$$

$$= 0.125$$

6. 75%

$$= \frac{75}{100}$$

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$$\begin{array}{r} 100\overline{)750}(0.75 \\ - 700 \\ \hline 500 \\ - 500 \\ \hline 0 \\ \hline = 0.75 \end{array}$$

H. 1. 22% of 140

$$= 140 \times \frac{22}{100} = \frac{308}{10}$$

$$\begin{array}{r} 10\overline{)308}(30.8 \\ - 30 \\ \hline 080 \\ - 80 \\ \hline 0 \\ \hline = 30.8 \end{array}$$

2. 25% of ₹ 750

$$= 750 \times \frac{25}{100} \\ = \frac{750}{4}$$

$$\begin{array}{r} 4\overline{)750}(187.5 \\ - 4 \\ \hline 35 \\ - 32 \\ \hline 30 \\ - 28 \\ \hline 20 \\ - 20 \\ \hline 0 \\ \hline = ₹ 187.5 \end{array}$$

3. 16.5% of 5000 kg

$$= 5000 \times \frac{165}{1000} \\ = 5 \times 165 \\ \begin{array}{r} 165 \\ \times 5 \\ \hline 825 \end{array} \\ = 825 \text{ kg}$$

4. $\frac{21}{2}\%$ of 801

$$= 801 \times \frac{21}{200} \\ = \frac{16821}{200}$$

$$\begin{array}{r} 200\overline{)16821}(84.105 \\ - 1600 \\ \hline 821 \\ - 800 \\ \hline 210 \\ - 200 \\ \hline 1000 \\ - 1000 \\ \hline 0 \\ \hline = 84.105 \end{array}$$

5. 0.4% of 8 km

$$= 8 \times \frac{4}{1000} \\ = \frac{32}{1000}$$

$$\begin{array}{r} 1000\overline{)3200}(0.032 \\ - 3000 \\ \hline 2000 \\ - 2000 \\ \hline 0 \\ \hline = 0.032 \end{array}$$

6. 120% of 1000

$$= 1000 \times \frac{120}{100} \\ = 10 \times 120 \\ = 1200$$

Creative Approach

A. 1. (a) 0.8%

$$= \frac{8}{1000} \\ \begin{array}{r} 1000\overline{)8000}(0.008 \\ - 8000 \\ \hline 0 \\ \hline = 0.008 \end{array}$$

Hence, 0.008 is equivalent to 0.8%

2. (b) 1 litre = 1000 ml
7 litres = 7×1000 ml
= 7000 ml

Now, Let $x\%$ of 7000 ml = 70 ml

$$7000 \times \frac{x}{100} = 70 \\ 7000 \times x = 70 \times 100$$

$$x = \frac{70 \times 100}{7000}$$

$$x = 1\%$$

Hence, 1% of 7 litres

3. (c) 8% of ₹ 8

$$= 8 \times \frac{8}{100} = \frac{64}{100} \\ = ₹ 0.64$$

$$\begin{array}{r} 100 \overline{)640} \quad (0.64) \\ - 600 \\ \hline 400 \\ - 400 \\ \hline 0 \end{array}$$

Now, 1 Rupee = 100
0.64 Rupee = 0.64×100 paise
= 64 paise

Hence, 8% of ₹ 8 is 64 paise

B. (a) $\frac{80}{100}$

$$= \frac{80}{100} \times 100\% \\ = 80\%$$

(b) $\frac{72}{100}$

$$= \frac{72}{100} \times 100\% \\ = 72\%$$

(c) $\frac{38}{100}$

$$= \frac{38}{100} \times 100\% \\ = 38\%$$

(d) $\frac{43}{100}$

$$= \frac{43}{100} \times 100\% \\ = 43\%$$

- C. 1. Total cost of home = ₹ 37,00,500
Cash payment = 20%

$$= 37,00,500 \times \frac{20}{100} \\ = ₹ 7,40,100$$

Payment made by cheque
= ₹ (37,00,500 – 7,40,100)
= ₹ 29,60,400

Hence, ₹ 29,60,400 was paid by cheque.

2. Total weight of basket = 10 g
Weight of gold = 89%

$$= 10 \times \frac{89}{100} \\ = \frac{89}{10} = 8.9 \text{ g}$$

Now, weight of diamond = 10 – 8.9
= 1.1 g

$$\begin{array}{r} 10.0 \\ - 8.9 \\ \hline 1.1 \end{array}$$

Hence, weight of the diamond is 1.1 g.

D. 1. No. of families having 5 cars
= $400 \times 12\%$
= $400 \times \frac{12}{100}$

$$= 48$$

No. of families having 4 cars
= $400 \times 23\%$
= $400 \times \frac{23}{100}$

$$= 92$$

Now, of families having 4 and more than 4 cars
= $48 + 92 = 140$

Hence, 140 families have 4 and more than 4 cars in all

2. No. of families having 3 cars = $400 \times 20\%$
= $400 \times \frac{20}{100}$

$$= 80$$

No. of families having 1 car = $400 \times \frac{27}{100}$

$$= 108$$

Difference = $108 - 80$
= 28

Hence, 28 fewer families have 3 cars than those that have 1 car.

3. No. of families having 2 cars = $400 \times \frac{18}{100}$
= 72

$$2000 \text{ mm} = \frac{1}{1000} \times 2000 \text{ m}$$

$$= 2 \text{ m}$$

Hence, $2,000 \text{ mm} = 2 \text{ m}$

10. $1 \text{ mm} = \frac{1}{10} \text{ cm}$

$$1,000 \text{ mm} = \frac{1}{10} \times 1000 \text{ cm}$$

$$= 100 \text{ cm}$$

Hence, $1,000 \text{ mm} = 100 \text{ cm}$

Creative approach

A. 1. (b) $1 \text{ gm} = \frac{1}{1000} \text{ kg}$

$$250 \text{ gm} = \frac{1}{1000} \times 250 \text{ kg}$$

$$= \frac{1}{4} \text{ kg}$$

Hence, 250 gm is equivalent to $\frac{1}{4} \text{ kg}$.

2. (b) $1\frac{3}{4} \text{ kg}$

$$= \frac{(4 \times 1) + 3}{4} \text{ kg}$$

$$= \frac{7}{4} \text{ kg}$$

$$1 \text{ kg} = 1000 \text{ gm}$$

$$\frac{7}{4} \text{ kg} = \frac{7}{4} \times 1000 \text{ gm}$$

$$= 1750 \text{ gm}$$

3. (b) $1 \text{ kl} = 1000 \text{ l}$

$$8 \text{ kl} = 8 \times 1000 \text{ l}$$

$$= 8000 \text{ l}$$

Now, $1 \text{ ml} = \frac{1}{1000} \text{ l}$

$$80000 \text{ ml} = \frac{1}{1000} \times 80000 \text{ l}$$

$$= 80 \text{ l}$$

Hence, 8 kl is more

4. (d) Length of 5 pieces = $\frac{15}{8} \text{ m}$

$$\text{Length of 1 piece} = \frac{15}{8} \div 5$$

$$= \frac{15}{8 \times 5} = \frac{3}{8} \text{ m}$$

$$\text{Length of 12 pieces} = \frac{3}{8} \times 12 = 4.5 \text{ m}$$

Hence, The length of original piece of string is 4.5 m.

B. Do yourself.

C. 1. Total milk booths = 143

Each milk booth gets the milk = 450.56 l

Milk supplied to all the booths = 45.56×143
= 64430.08 l

$$\begin{array}{r} 450.56 \\ \times 143 \\ \hline 135168 \\ 1802240 \\ + 4505600 \\ \hline 64430.08 \end{array}$$

Hence, 64430.08 litres of milk is supplied to all the booths.

2. Total water in the barrel = 24 l

No. of buckets = 4

Water each bucket will get = $24 \div 4 = 6 \text{ l}$

Hence, Each bucket has 6 litres of water.

D. Distance between the gate and the principal's office

$$= 400 \text{ m } 75 \text{ cm}$$

Distance covered by = 200 m 50 cm

Distance left to reach

$$= 400 \text{ m } 75 \text{ cm} - 200 \text{ m } 50 \text{ cm}$$

$$= 200 \text{ m } 25 \text{ cm}$$

$$\begin{array}{r} \text{m} \quad \text{cm} \\ 400 \quad 75 \\ - 200 \quad 50 \\ \hline 200 \quad 25 \end{array}$$

$$= 200 \text{ m } 25 \text{ cm}$$

Hence, The distance of 200 m 25 cm is left to be covered to reach the principal office.

E. Do it yourself.



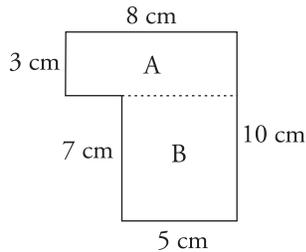
CHAPTER-10
Area and Volume

A. 1. Area = 6×2
= 12 cm²

Hence, Area = 12 square cm.

2. $\text{Area} = 3 \times 2$
 $= 6 \text{ cm}^2$
 Hence, $\text{Area} = 6 \text{ square cm.}$
3. $\text{Area} = 5 \times 5$
 $= 25 \text{ cm}^2$
 Hence, $\text{Area} = 25 \text{ square cm.}$
4. $\text{Area} = 6 \times 4$
 $= 24 \text{ cm}^2$
 Hence, $\text{Area} = 24 \text{ square cm.}$

B. 1.

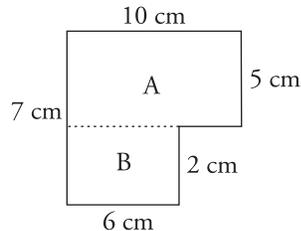


Now, $\text{Area of rectangle (A)} = 8 \times 3$
 $= 24 \text{ cm}^2$
 $\text{Area of rectangle (B)} = 5 \times 7$
 $= 35 \text{ cm}^2$

Area of the shape
 $= \text{Area of rectangle (A)}$
 $+ \text{Area of rectangle (B)}$
 $= 24 + 35$
 $= 59 \text{ cm}^2$

Hence, $\text{Area} = 59 \text{ square cm (cm}^2\text{)}$

2.

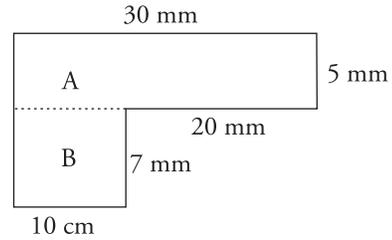


$\text{Area of rectangle (A)} = 10 \times 5$
 $= 50 \text{ cm}^2$
 $\text{Area of rectangle (B)} = 6 \times (7 - 5)$
 $= 6 \times 2$
 $= 12 \text{ cm}^2$

$\text{Area of shape} = \text{Area of rectangle (A)}$
 $+ \text{Area of rectangle (B)}$
 $= 50 + 12$
 $= 62 \text{ cm}^2$

Hence, $\text{Area} = 62 \text{ square cm (cm}^2\text{)}$

3.

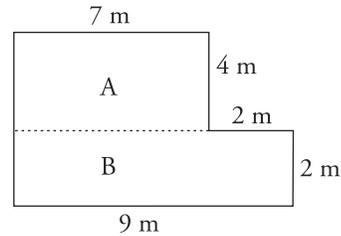


$\text{Area of rectangle (A)} = 30 \times 5$
 $= 150 \text{ mm}^2$
 $\text{Area of rectangle (B)} = (30 - 20) \times 7$
 $= 10 \times 7$
 $= 70 \text{ mm}^2$

$\text{Area of the shape} = \text{Area of rectangle (A)}$
 $+ \text{Area of rectangle (B)}$
 $= 150 + 70$
 $= 220 \text{ mm}^2$

Hence, $\text{Area} = 220 \text{ square mm (mm}^2\text{)}$

4.



$\text{Area of rectangle (A)} = 7 \times 4$
 $= 28 \text{ m}^2$
 $\text{Area of rectangle (B)} = (7 + 2) \times 2$
 $= 9 \times 2$
 $= 18 \text{ m}^2$

$\text{Area of the shape} = \text{Area of rectangle (A)}$
 $+ \text{Area of rectangle (B)}$
 $= 28 + 18$
 $= 46 \text{ m}^2$

Hence, $\text{Area} = 46 \text{ square m (m}^2\text{)}$

Maths Stories

- A. 1. $\text{Length of the banner} = 72 \text{ inches}$
 $\text{Width of the banner} = 23 \text{ inches}$
 $\text{Area of the banner} = \text{length} \times \text{width}$
 $= 72 \times 23$
 $= 1656 \text{ inches}^2$
- Hence, The area of the party banner is 1656 inches².
2. $\text{Size of the bookmark} = "2 \times 6"$
 $\text{Area of the bookmark} = 2 \times 6$
 $= 12 \text{ square units}$

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Hence, The area of the bookmark is 12 square units.

3. Length of the flag = 9 inches
 Width of the flag = 5 inches
 Area of the flag = length \times width
 $= 9 \times 5$
 $= 45 \text{ inches}^2$

Hence, The area of the flag is 45 inches².

4. Length of the foyer = 15 feet
 Width of the foyer = 8 feet
 Area of the foyer = length \times width
 $= 15 \times 8$
 $= 120 \text{ feet}^2$

Hence, The area of the foyer is 120 feet².

- C. 1. Area of the shape = 33 square units
 Hence, Area = 33 square units
 2. Area of the shape = 24 square units
 Hence, Area = 24 square units
 3. Area of the shape = 37 square units
 Hence, Area = 37 square units
 4. Area of the shape = 40 square units
 Hence, Area = 40 square units
 5. Area of the shape = 36 square units
 Hence, Area = 36 square units
 6. Area of the shape = 26 square units
 Hence, Area = 26 square units

- D. 1. Area of the shape = 4×3
 $= 12 \text{ square units}$
 Hence, Area = 12 square units
 2. Area of the shape = 5×6
 $= 30 \text{ square units}$
 Hence, Area = 30 square units
 3. Area of the shape = 3×3
 $= 9 \text{ square units}$
 Hence, Area = 9 square units
 4. Area of the shape = 5×5
 $= 25 \text{ square units}$
 Hence, Area = 25 square units
 5. Area of the shape = 5×4
 $= 20 \text{ square units}$
 Hence, Area = 20 square units
 6. Area of the shape = 4×4
 $= 16 \text{ square units}$
 Hence, Area = 16 square units

7. Area of the shape = 4×6
 $= 24 \text{ square units}$

Hence, Area = 24 square units

8. Area of the shape = 5×3
 $= 15 \text{ square units}$

Hence, Area = 15 square units

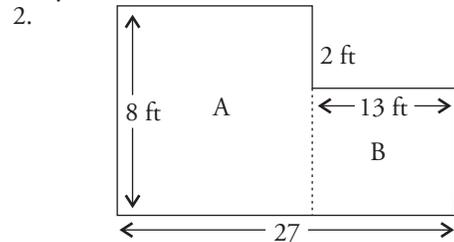
9. Area of the shape = 6×4
 $= 24 \text{ square units}$

Hence, Area = 24 square units

- E. 1. Given length = 38 yd
 Width = 14 yd
 Perimeter of the rectangle = $2 \times (\text{length} + \text{width})$
 $= 2 \times (38 + 14)$
 $= 2 \times (52)$
 $= 104 \text{ yd}$

Now, Area of the rectangle = length \times width
 $= 38 \times 14$
 $= 532 \text{ yd}^2$

Hence, perimeter of the rectangular shape is 104 yd and area of the rectangular shape is 532 yd².



Length of rectangle (A) = $27 - 13$
 $= 14 \text{ ft}$

Width of rectangle (A) = 8 ft

Perimeter of rectangle (A)
 $= 14 + 14 + 8 + 2 = 38 \text{ ft}$

Area of rectangle (A) = length \times width
 $= 14 \times 8$
 $= 112 \text{ ft}^2$

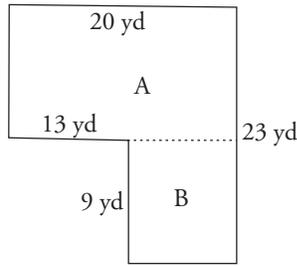
Now, Length of rectangle (B) = 13 ft

Width of rectangle (B) = $8 - 2$
 $= 6 \text{ ft}$

Perimeter of rectangle (B) = $13 + 13 + 6$
 $= 32 \text{ ft}$

Area of rectangle (B) = length \times width
 $= 13 \times 6$
 $= 78 \text{ ft}^2$

6.



$$\begin{aligned} \text{Length of rectangle (A)} &= 20 \text{ yd} \\ \text{Width of rectangle (A)} &= 23 - 9 \\ &= 14 \text{ yd} \end{aligned}$$

$$\begin{aligned} \text{Perimeter of rectangle (A)} &= 20 + 14 + 13 + 14 \\ &= 61 \text{ yd} \end{aligned}$$

$$\begin{aligned} \text{Area of rectangle (A)} &= \text{length} \times \text{width} \\ &= 20 \times 14 \\ &= 280 \text{ yd}^2 \end{aligned}$$

$$\begin{aligned} \text{Now, Length of rectangle (B)} &= 20 - 13 \\ &= 7 \text{ yd} \end{aligned}$$

$$\begin{aligned} \text{Width of rectangle (B)} &= 9 \text{ yd} \\ \text{Perimeter of rectangle (B)} &= 9 + 7 + 9 \\ &= 25 \text{ yd} \end{aligned}$$

$$\begin{aligned} \text{Area of rectangle (B)} &= \text{length} \times \text{width} \\ &= 7 \times 9 \\ &= 63 \text{ yd}^2 \end{aligned}$$

$$\begin{aligned} \text{Now, Perimeter of the rectangular shape} \\ &= \text{Perimeter of rectangle (A)} \\ &\quad + \text{Perimeter of rectangle (B)} \\ &= 61 + 25 \\ &= 86 \text{ yd} \end{aligned}$$

$$\begin{aligned} \text{Area of rectangular shape} \\ &= \text{Area of rectangle (A)} \\ &\quad + \text{Area of rectangle (B)} \\ &= 280 + 63 \\ &= 343 \text{ yd}^2 \end{aligned}$$

Hence, The perimeter and the area of the rectangular shape is 86 yd and 343 yd².

F. 1. Given, height = 10 cm
length = 20 cm
breadth = 15 cm
Base = l × b
= 20 × 15
= 300 cm²

Now, Volume = Base × height
= 300 × 10
= 3000 cm³

Hence, The volume of the object is 3000 cm³.

2. Given, length = 4 cm
breadth = 5 cm

$$\begin{aligned} \text{height} &= 5 \text{ cm} \\ \text{Base} &= \text{length} \times \text{breadth} \\ &= 4 \times 5 \\ &= 20 \text{ cm}^2 \end{aligned}$$

Now, Volume = Base × Height
= 20 × 5
= 100 cm³

Hence, The volume of the object is 100 cm³.

3. Given, length = 9 cm
breadth = 3 cm
height = 9 cm
Base = length × breadth
= 9 × 3
= 27 cm²

Now, Volume = Base × Height
= 27 × 9
= 243 cm³

Hence, The volume of the object is 243 cm³.

4. Given, length = 8 cm
breadth = 7 cm
height = 9 cm
Base = length × breadth
= 8 × 7
= 56 cm²

Now, Volume = Base × Height
= 56 × 9
= 504 cm³

Hence, The volume of the object is 504 cm³.

Maths Stories

1. No. of bottles Asha bought = 24
Capacity of 1 bottle = 12 ounces
Capacity of 24 bottles = 24 × 12 ounces
= 288 ounces

Now, 16 ounces = 2 cups
1 ounce = $\frac{2}{16}$ cups

$$\begin{aligned} 288 \text{ ounces} &= \frac{2}{16} \times 288 \text{ cups} \\ &= 36 \text{ cups} \end{aligned}$$

Now, Total number of guests = 30
Water needed for 30 guests = 30 cups
So, water is enough for the guests.

2. Orange juice in mixture = 2 cartons
= 2 × (7) quarts
= 14 quarts

$$= \frac{14}{4} \text{ gallons}$$

$$\begin{aligned} \text{Sod water in mixture} &= 3 \text{ bottles} \\ &= 3 \times 6 \text{ quarts} \\ &= 18 \text{ quarts} \\ &= \frac{18}{4} \text{ gallons} \end{aligned}$$

$$\begin{aligned} \text{Cocktail fruits in mixture} &= 6 \text{ cans} \\ &= 6 \times 2 \text{ pints} \\ &= 12 \text{ pints} \\ &= \frac{12}{2} \text{ quarts} \\ &= 6 \text{ quarts} \\ &= \frac{6}{4} \text{ gallons} \end{aligned}$$

Now, Total measure of mixture

$$\begin{aligned} &= \left(\frac{14}{4} + \frac{18}{4} + \frac{6}{4} \right) \text{ gallons} \\ &= \left(\frac{38}{4} \right) \text{ gallons} = 9.5 \text{ gallons} \end{aligned}$$

3. Total number of bowls = 24

$$\text{Total cream} = 5 \text{ cups}$$

$$\begin{aligned} \text{Now, } 2 \text{ cups} &= 16 \text{ ounces} \\ 1 \text{ cup} &= \frac{16}{2} \text{ ounces} \end{aligned}$$

$$\begin{aligned} 5 \text{ cups} &= \frac{16}{2} \times 5 \text{ ounces} \\ &= 40 \text{ ounces} \end{aligned}$$

$$\text{Cream in each bowl} = \frac{40}{24} \text{ ounces}$$

$$= 1.66 \text{ ounces (approx)}$$

$$\begin{array}{r} 24 \overline{)40} 1.66 \\ \underline{-24} \\ 160 \\ \underline{-144} \\ 160 \\ \underline{-144} \\ 16 \end{array}$$

Hence, 1.66 ounces of cream is used for each small bowl of soup.

4. Lemonade in first pitcher = 1.5 gallons
 $= (1.5 \times 4) \text{ quarts}$
 $= 6 \text{ quarts}$
 $= (6 \times 2) \text{ pints}$

$$\begin{aligned} &= 12 \text{ pints} \\ &= (12 \times 2) \text{ cups} \\ &= 24 \text{ cups} \end{aligned}$$

$$\begin{aligned} \text{Lemonade in other pitcher} &= 9 \text{ quarts} \\ &= (9 \times 2) \text{ pints} \\ &= 18 \text{ pints} \\ &= (18 \times 2) \text{ cups} \\ &= 36 \text{ cups} \end{aligned}$$

$$\begin{aligned} \text{Total lemonade in the fridge} &= 24 + 36 \\ &= 60 \text{ cups} \end{aligned}$$

Hence, There are 60 cups of lemonade in the fridge.

5. A persons is supposed to drink the water
 $= 0.5 \text{ gallons}$
 $= (0.5 \times 4) \text{ quarts}$
 $= 2 \text{ quarts}$
 $= (2 \times 2) \text{ pints}$
 $= 4 \text{ pints}$
 $= (4 \times 16) \text{ ounces}$
 $= 64 \text{ ounces}$

$$\begin{aligned} \text{Arun drank the water} &= 15 \text{ cups} \\ &= (15 \times 3.5) \text{ ounces} \\ &= 52.5 \text{ ounces} \end{aligned}$$

$$\begin{aligned} \text{More water does Arun need to drink} &= 64 - 52.5 \\ &= 11.5 \text{ ounces} \end{aligned}$$

Hence, 11.5 ounces of more water arun needs to drink today.

6. (a) Total customers = 5,630
 Total cups used by customers = 5,630
 5 cups are filled by 1 ounce of vegetable

$$5630 \text{ cups are filled by } \left(\frac{5630}{5} \right) \text{ ounces}$$

$$= 1,126 \text{ ounces}$$

$$\text{Vegetables stock 1 carton} = 16 \text{ ounces}$$

$$\text{Vegetables stock of } 1,126 \text{ ounces in } \left(\frac{1126}{16} \right) \text{ cartons}$$

$$= 70.37 \text{ (approx)} = 70 \text{ cartons.}$$

Hence, They drank about 70 cartons of vegetable stock.

Creative Approach

- A. 1. (c) Given, length = 2 m
 breadth = 5 m
 Area of rectangle = length \times breadth
 $= 2 \times 5 = 10 \text{ m}^2$
 Hence, The area of rectangle is 10 m^2 .

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2. (a) Given, Side of the square = 10 m
 Area of square = side \times side
 $= 10 \times 10$
 $= 100 \text{ m}^2$

Hence, The area of the square is 100 m^2 .

3. (c) Given, First side of the triangle = 5 m
 also, Second side of the triangle = 4 m
 also, Perimeter of the triangle = 20 m
 Let the third side of the triangle be x .
 We know that, perimeter of a triangle = sum of all sides

$$\begin{aligned} \therefore \quad 20 &= 5 + 4 + x \\ 20 &= 9 + x \\ x &= 20 - 9 \\ x &= 11 \text{ m} \end{aligned}$$

Hence, The third side of the triangle is 11 m.

4. (d) Given, breadth of the cuboid = 6 cm
 also, height of the cuboid = 5 cm
 also, volume of the cuboid = 120 cm^3

Let the length of the cuboid = x
 We know that, volume of the cuboid

$$\begin{aligned} &= l \times b \times h \\ \therefore \quad 120 &= x \times 6 \times 5 \\ x &= \frac{120}{6 \times 5} \\ x &= 4 \text{ cm} \end{aligned}$$

Hence, The length of the cuboid is 4 cm.

5. (c) The amount of space a solid occupies is called the volume.

- B. 1. Given, side of the triangle = 10 cm
 Perimeter of the triangle = $3 \times$ side
 $= 3 \times 10$
 $= 30 \text{ cm}$

2. Given, side of the square = 5 cm
 Perimeter of the square = $4 \times$ side
 $= 4 \times 5$
 $= 20 \text{ cm}$

3. Given, length = 9 cm
 breadth = 4 cm
 Perimeter of the rectangle = $2(l + b)$
 $= 2(9 + 4)$
 $= 2(13)$
 $= 26 \text{ cm}$

- C. 1. Given, length of the playground = 60 m
 also, Area of the playground = $6,000 \text{ sq m}$
 Let the breadth of the playground be x
 We know that, Area of rectangle = $l \times b$

$$\begin{aligned} \therefore \quad 6000 &= 60 \times x \\ x &= \frac{6000}{60} \\ x &= 100 \text{ m} \end{aligned}$$

So, breadth of the playground is 100 m.

Now, Perimeter of the rectangle

$$\begin{aligned} &= 2 \times (l + b) = 2 \times (60 + 100) \\ &= 2 \times (160) \\ &= 320 \text{ m} \end{aligned}$$

Hence, The breadth of the playground is 100 m and perimeter of the playground is 320 m.

2. Measure of carpet = $5 \text{ m} \times 3.5 \text{ m}$
 Area of the carpet = $5 \times 3.5 = 17.5 \text{ m}^2$
 Area of 25 carpets = $25 \times 17.5 = 437.5 \text{ m}^2$
 Hence, The area of the floor of the hall is 437.5 m^2 .

- D. 1. length = 4 cm
 breadth = 5 cm
 Area of rectangle ABCD = length \times breadth
 $= 4 \times 5$
 $= 20 \text{ cm}^2$

Hence, The area of the rectangle ABCD is 20 cm^2 .

2. length = 7 cm
 breadth = 3 cm
 Area of rectangle PQRS = length \times breadth
 $= 7 \times 3 = 21 \text{ cm}^2$

Hence, The area of the rectangle PQRS is 21 cm^2

3. Area of rectangle ABCD = 20 cm^2
 Area of rectangle PQRS = 21 cm^2
 $20 \text{ cm}^2 < 21 \text{ cm}^2$

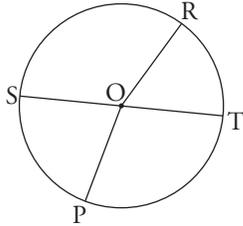
Hence, both the areas are not equal.

4. length = 4 cm
 breadth = 5 cm
 Perimeter of rectangle ABCD = $2 \times (l + b)$
 $= 2 \times (4 + 5)$
 $= 2 \times (9)$
 $= 18 \text{ cm}$

Hence, The perimeter of rectangle ABCD is 18 cm.

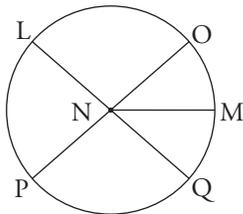
5. length = 7 cm
 breadth = 3 cm
 Perimeter of rectangle PQRS = $2 \times (l + b)$
 $= 2 \times (7 + 3)$
 $= 2 \times 10$
 $= 20 \text{ cm}$

4.



In the circle given above,
O is the centre of the circle
OR and OP are the radius of the circle
ST is the diameter of the circle.

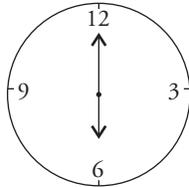
5.



In the circle given above,
N is the centre of the circle.
NM is the radius of the circle
OP and LQ are the diameter of the circle

Creative Approach

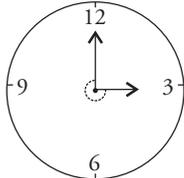
A. 1. (d)



The Volume of the angle is 180° .

2. (c) Protractor can measure the angle from 0° upto 180° .

3. (d)



The volume of larger angle between the hands of the clock is 270° .

- 4. (a) 2 right angles will make a straight line.
- 5. (b) A soldier turn 180° when he takes an "about turn".

B. 1. Let the third angle of the triangle be x
We know that, Sum of all angles of a triangle is 180° .

$$\therefore 90^\circ + 45^\circ + x = 180^\circ$$

$$135^\circ + x = 180^\circ$$

$$x = 180^\circ - 135^\circ$$

$$x = 45^\circ$$

Hence, The measure of third angle is 45°

2. Let the third angle of the triangle be x
We know that, Sum of all angles of a triangle is 180°

$$\therefore 45^\circ + 81^\circ + x = 180^\circ$$

$$126^\circ + x = 180^\circ$$

$$x = 180^\circ - 126^\circ$$

$$x = 54^\circ$$

Hence, The measure of third angle is 54° .

3. Let the third angle of the triangle be x
We know that, sum of all angles of a triangle is 180°

$$\therefore 30^\circ + 35^\circ + x = 180^\circ$$

$$65^\circ + x = 180^\circ$$

$$x = 180^\circ - 65^\circ$$

$$x = 115^\circ$$

Hence, The measure of third angle is 115° .

4. Let the third angle of the triangle be x
We know that, Sum of all angles of a triangle is 180°

$$\therefore 47^\circ + 53^\circ + x = 180^\circ$$

$$100^\circ + x = 180^\circ$$

$$x = 180^\circ - 100^\circ$$

$$x = 80^\circ$$

Hence, The measure of third angle is 80° .

C. 1. Radii = OA, OB, OC, OD, OE, OF
Diameter = AD, CF, BE

2. Given, measures of the angle of the triangle = 29° , 105° and 66°

Now, we know that, sum of all angles of a triangle is 180° .

$$\Rightarrow 29^\circ + 105^\circ + 66^\circ \square 180^\circ$$

$$200^\circ \square > 180^\circ$$

Hence, The triangle is not possible.

D. 1. There are eight perpendicular line segments.

2. $PN \parallel AD$

$AD \parallel BC$

$PN \parallel LM$

$BC \parallel LM$

$AP \parallel DN$

$BL \parallel CM$

E. Do yourself.

CHAPTER-12
Time

- A. 1. 1 minute = 60 seconds
3 minutes = 3×60 seconds
= 180 seconds
Hence, 3 minutes = 180 seconds
2. 1 second = $\frac{1}{60}$ minutes
120 seconds = $\frac{1}{60} \times 120$ minutes
= 2 minutes
Hence, 120 seconds = 2 minutes
3. 1 minute = $\frac{1}{60}$ hour
180 minutes = $\frac{1}{60} \times 180$ hours
= 3 hours
Hence, 180 minutes = 3 hours
4. 1 days = 24 hours
 $\frac{1}{2}$ days = $24 \times \frac{1}{2}$ hours
= 12 hours
Hence, $\frac{1}{2}$ a days = 12 hours
5. 1 day = 24 hours
4 days = 24×4 hours
= 96 hours
Hence, 4 days = 96 hours
6. 1 minute = 60 seconds
2 minutes = 60×2 seconds
= 120 seconds
Now, 2 minutes and 35 seconds
= 120 seconds + 35 seconds
= 155 seconds
Hence, 2 minutes and 35 seconds
= 155 seconds
7. 1 hour = 60 minutes
5 hours = 5×60 minutes
= 300 minutes
Hence, 5 hours = 300 minutes
8. 1 hours = 60 minutes
 $\frac{1}{2}$ hour = $60 \times \frac{1}{2}$ minutes
= 30 minutes

Now, 1 and a half hour = 1 hour + $\frac{1}{2}$ hour
= 60 minutes + 30 minutes
= 90 minutes

Hence, 1 and a half hours = 90 minutes

9. 1 second = $\frac{1}{60}$ minutes
240 seconds = $\frac{1}{60} \times 240$ minutes

= 4 minutes

Hence, 240 seconds = 4 minutes

10. 1 day = 24 hours
3 days = 24×3 hours
= 72 hours

and, $\frac{1}{2}$ days = $24 \times \frac{1}{2}$ hours
= 12 hours

Now, 3 and a half days = 3 days + $\frac{1}{2}$ day

= 72 hours + 12 hours

= 84 hours

Hence, 84 hours = 3 and a half days

11. 1 minute = 60 seconds
10 minutes = 60×10 seconds
= 600 seconds

Hence, 600 seconds = 10 minutes

12. 1 hour = $\frac{1}{24}$ day

96 hours = $\frac{1}{24} \times 96$ days

= 4 days

Hence, 96 hours = 4 days

- B. 1. 3 years 11 months 3 weeks 3 days
2. 1 year 4 months 1 week 5 days
3. 1 year 6 months 1 week 1 days
4. 2 years 4 months 3 weeks 2 days
5. 4 years 1 months 3 weeks 5 days
6. 8 years 3 months 2 weeks 5 days
7. 5 years 8 months 1 week 5 days
8. 10 years 3 months 1 week 6 days
9. 2 years 3 months 3 weeks 1 day
10. 3 years 11 months 10 weeks 6 days

Creative Approach

- A. 1. (c) Bull fighting show began at 5 : 35 p.m.
Running time of the show = 35 minutes
Show ended time = 5 : 35 p.m. + 35 minutes
= 5 p.m. + 70 minutes

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$$\begin{aligned}
 &= 5 \text{ p.m.} + 1 \text{ hour} + 10 \text{ minutes} \\
 &= 6 \text{ p.m.} + 10 \text{ minutes} \\
 &= 6 : 10 \text{ p.m.} \\
 &\quad h \quad \text{minutes} \\
 &\quad 5 \quad 35 \\
 &+ \quad \quad 35 \\
 \hline
 &\quad 5 \quad 70
 \end{aligned}$$

Hence, the show ended at 6 : 10 p.m.

2. (c) Suman went to sleep at 10 : 25 p.m. she waked up at 6 : 10 a.m.
 Her sleeping time = 10 : 25 p.m. to 6 : 10 a.m.
 = 1 hours 35 min + 6 hour 10 min
 = 7 hours 45 minutes

$$\begin{aligned}
 &\quad h \quad \text{min} \\
 &12 : 00 \\
 - &10 : 25 \\
 \hline
 &1 : 35 \\
 &\quad h \quad \text{min} \\
 &1 : 35 \\
 + &6 : 10 \\
 \hline
 &7 : 45
 \end{aligned}$$

Hence, she slept for 7 hours 45 minutes.

3. (c) $\quad h \quad \text{min}$
 $12 : 00$
 $+ 9 : 15$
 $\hline 21 : 15$

Hence, 9 : 15 p.m. in 24 hours clock is 21 : 15 hours.

4. (d) $\quad h \quad \text{min}$
 $3 : 30$
 $- 2 : 20$
 $\hline 1 : 10$

Now, 1 : 10 hours before 12 p.m.

$$\begin{aligned}
 &\quad h \quad \text{min} \\
 &12 : 00 \\
 - &1 : 10 \\
 \hline
 &10 : 50
 \end{aligned}$$

Hence, the time 3 : 30 hours before 2 : 20 p.m. is 10 : 50 a.m.

5. (c) Given, Distance = 500 m
 also, Time = 25 sec

$$\begin{aligned}
 \text{Speed} &= \frac{\text{Distance}}{\text{Time}} \\
 &= \frac{500}{25}
 \end{aligned}$$

$$= 20 \text{ m/sec}$$

$$\text{Hence, speed} = 20 \text{ m/s}$$

B. Do yourself

- C. 1. Distance covered by train = 345 km
 Time taken by train = 5 hours

$$\begin{aligned}
 \text{Speed} &= \frac{\text{Distance}}{\text{Time}} \\
 &= \frac{345}{5}
 \end{aligned}$$

$$= 69 \text{ km/h}$$

Hence, The speed of the train is 69 km/h.

2. Total Distance = 645 km
 Time taken by train = 4 hours + 8 hours
 = 12 hours

$$\begin{aligned}
 \text{Average speed of train} &= \frac{\text{Distance}}{\text{Total time taken}} \\
 &= \frac{645}{12}
 \end{aligned}$$

$$= 53.75 \text{ km/h}$$

Now, calculation of speed of the train

$$\text{Distance} = 645 \text{ km}$$

$$\begin{aligned}
 \text{Train's running time} &= 12 - 2 \\
 &= 10 \text{ hours}
 \end{aligned}$$

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{645}{10}$$

$$= 64.5 \text{ km/h}$$

Hence, the average speed of the train is 53.75 km/h and speed of the train is 64.5 km/h.

- D. 1. Distance = 800 km
 Time = 5 hours

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{800}{5}$$

$$= 160 \text{ km/h}$$

Hence, the speed is 160 km/h.

2. Distance = 12 km
 Time = 8 hours
 Speed = $\frac{\text{Distance}}{\text{Time}}$
 $= \frac{12}{8}$
 $= 1.5 \text{ km/h}$

Hence, the speed is 1.5 km/h.

3. Distance = 54 km
 Time = 8 hours
 Speed = $\frac{\text{Distance}}{\text{Time}}$
 $= \frac{54}{8}$
 $= 6.75 \text{ km/h}$

Hence, the speed is 6.75 km/h.

4. Distance = 800 km
 Time = 6 hours
 Speed = $\frac{\text{Distance}}{\text{Time}}$
 $= \frac{800}{6}$
 $= 133.33 \text{ km/h}$

Hence, The speed is 133.33 km/h.

E. Do yourself

□□

CHAPTER-13 Temperature

- A. 1. (a) The temperature of a typical summer days is 30° C.
 2. (c) The temperature of a snowy day should be below 32° F.
 3. (a) The water in a hot bubble both be around 100° C.
 4. (b) The soup served in a restaurant should be around 100° F.
 5. (a) The temperature of boiling water is 212° F.
 6. (c) If your body temperature is at 103° F, you are having a fever.
 7. (c) The water turns to ice when the temperature is lower than 0° C.
 8. (a) On a snow fall day, the temperature is around 15° F.

Creative Approach

- A. 1. (b) The temperature outside on a snowy day is 0° C.
 2. (a) The temperature of a hot barbecue grill is 260° C.
 3. (b) Thermometer is the instrument that is used to measure the temperature.
 4. (a) Meter : Length :: Celsius : Temperature.
 5. (a) Temperature at the begining = 161° F
 Temperature after use = 144° F
 Decrease in temperature = 161 – 144
 $= 17° \text{ F}$

Hence, The machine is cool off 17° F.

B. Do it yourself.

- C. 1. Temperature of the thing = 18° C
 Temperature of the ice = 0° C
 The temperature of the thing should be reduce
 $= 18 - 0$
 $= 18° \text{ C}$

Hence, 18° C of the temperature of the thing should be reduce so that it becomes ice.

2. Given, $\frac{C}{5} = \frac{F-32}{9}$

Let $C = F$
 $\frac{F}{5} = \frac{F-32}{9}$

$$9 \times F = 5 \times (F - 32)$$

$$9F = 5F - 160$$

$$9F - 5F = -160$$

$$4F = -160$$

$$F = \frac{-160}{4}$$

$$F = -40°$$

So, $C = -40°$

Hence, At – 40° both scales show similar reading.

- D. Temperature on 15 April = 22.5° C
 Rise in temperature in 1 day = 1.5° C
 Rise in temperature from 15 April to 30 April
 $= 15 \times 1.5 = 22.5° \text{ C}$
 Now, Temperature on 30 April = 22.5 + 22.5
 $= 45° \text{ C}$
 Hence, On 30 April, the temperature will be 45° C.

E. Do yourself.

□□

CHAPTER-14

Money

- A. 1. $CP = ₹ 420$
 $SP = ₹ 400$
 $CP > SP$
 So, there will be loss.
 $Loss = CP - SP$
 $= 420 - 400$
 $= ₹ 20$
 Hence, the loss is ₹ 20.
2. $CP = ₹ 30$
 $Profit = ₹ 5$
 $SP = CP + Profit$
 $= 30 + 5$
 $= ₹ 35$
 Hence, selling price is ₹ 35.
3. $CP = ₹ 550$
 $Loss = ₹ 125$
 $SP = CP - Loss$
 $= 550 - 125$
 $= ₹ 425$
 Hence, selling price is ₹ 425.
4. $SP = ₹ 885$
 $Profit = ₹ 65$
 $CP = SP - Profit$
 $= 885 - 65$
 $= ₹ 820$
 Hence, the cost price is ₹ 820.
5. $CP = ₹ 799$
 $Profit = ₹ 65$
 $SP = CP + Profit$
 $= 799 + 65$
 $= ₹ 864$
 Hence, selling price is ₹ 864.
6. $SP = ₹ 5,000$
 $Loss = ₹ 450$
 $CP = SP + Loss$
 $= 5,000 + 450$
 $= ₹ 5,450$
 Hence, the cost price is ₹ 5,450.
7. $CP = ₹ 8,765$
 $SP = ₹ 8,875$
 $SP > CP$

So, there will be profit

$$\begin{aligned} Profit &= SP - CP \\ &= 8,875 - 8,765 \\ &= ₹ 110 \end{aligned}$$

Hence, the profit is ₹ 110.

8. $SP = ₹ 9,655$
 $Profit = ₹ 1,000$
 $CP = SP - Profit$
 $= 9,655 - 1,000$
 $= 8,655$

Hence, the cost price is 8,655.

9. $SP = ₹ 1,500$
 $Profit = ₹ 300$
 $CP = SP - Profit$
 $= 1,500 - 300$
 $= ₹ 1,200$

Hence, the cost price is ₹ 1,200.

10. $CP = ₹ 5,750$
 $SP = ₹ 5,700$
 $CP > SP$

So, there will be loss.

$$\begin{aligned} Loss &= CP - SP \\ &= 5,750 - 5,700 \\ &= ₹ 50 \end{aligned}$$

Hence, the loss is ₹ 50.

- B. 1. $CP = ₹ 350$
 $SP = ₹ 400$
 $SP > CP$

So, there will be profit.

$$\begin{aligned} Profit &= SP - CP \\ &= 400 - 350 = ₹ 50 \end{aligned}$$

$$Profit \% = \frac{Profit}{CP} \times 100$$

$$= \frac{50 \times 100}{450}$$

$$= 14.28\% \text{ (approx)}$$

Hence, profit percent is 14.28%

2. $CP = ₹ 250$
 $SP = ₹ 235$
 $CP > SP$

So, there will be loss.

$$\begin{aligned} Loss &= CP - SP \\ &= 250 - 235 \\ &= ₹ 15 \end{aligned}$$

$$\begin{aligned} \text{Loss \%} &= \frac{\text{Loss}}{\text{CP}} \times 100 \\ &= \frac{15 \times 100}{250} \\ &= 6\% \end{aligned}$$

Hence, loss percent is 6%.

3. $\text{CP} = ₹ 300$
 $\text{Profit} = ₹ 75$

$$\text{Profit \%} = \frac{\text{Profit}}{\text{CP}} \times 100$$

$$= \frac{75 \times 100}{300}$$

$$= 25\%$$

Hence, profit % is 25%.

4. $\text{CP} = ₹ 720$
 $\text{Loss} = ₹ 63$

$$\text{Loss \%} = \frac{\text{Loss} \times 100}{\text{CP}}$$

$$= \frac{63 \times 100}{720}$$

$$= 8.75\%$$

Hence, loss % is 8.75 %.

5. $\text{SP} = ₹ 1,518$
 $\text{Loss} = ₹ 132$
 $\text{CP} = \text{SP} + \text{Loss}$
 $= 1,518 + 132$
 $= ₹ 1,650$

$$\text{Loss \%} = \frac{\text{Loss} \times 100}{\text{CP}}$$

$$= \frac{132 \times 100}{1650}$$

$$= 8\%$$

Hence, loss % is 8%.

6. $\text{SP} = ₹ 540$
 $\text{Profit} = ₹ 60$
 $\text{CP} = \text{SP} - \text{Profit}$
 $= 540 - 60$
 $= ₹ 480$

$$\text{Profit \%} = \frac{\text{Profit}}{\text{CP}} \times 100$$

$$= \frac{60 \times 100}{480}$$

$$= 12.5\%$$

Hence, profit % is 12.5 %.

Creative Approach

1. (b)
$$\begin{array}{r} 648.20 \\ - 246.80 \\ \hline 401.40 \end{array}$$

Hence, ₹ 246.80 + ₹ 401.40 = ₹ 648.20.

2. (a) The price that a shokeeper pays to the manufacturer or wholesales is called the cost price.

3. (a) To make a profit, the selling price must be higher than the cost price.

4. (a) $\text{SP} = ₹ 6,570$
 $\text{Profit} = ₹ 1,020$
 $\text{CP} = \text{SP} - \text{Profit}$
 $= 6,570 - 1,020$
 $= ₹ 5,550$

Hence, The cost price of the machine is ₹ 5,550.

5. (d) $\text{CP} = ₹ 800$
 $\text{SP} = ₹ 872$
 $\text{Profit} = \text{SP} - \text{CP}$
 $= 872 - 800$
 $= ₹ 72$

$$\text{Profit \%} = \frac{\text{Profit} \times 100}{\text{CP}}$$

$$= \frac{72 \times 100}{800}$$

$$= 9\%$$

Hence, His profit percent is 9 %.

B. Do yourself.

C. 1. Total money the merchant has = ₹ 35,916
 Money spent on apples = ₹ 12,763.30
 Money spent on grapes = ₹ 13,243.30
 Money spent on Bananas = ₹ 947
 Total money spent = 12,763.30 + 13,243.30 + 947
 $= ₹ 26,953.60$

$$\begin{array}{r} 12763.30 \\ + 13243.30 \\ + 947.00 \\ \hline 26953.60 \end{array}$$

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Money remains with him = $35,916 - 26,953.60$
 $= ₹ 8,962.40$

$$\begin{array}{r} 35916.00 \\ - 26953.60 \\ \hline + 8962.40 \end{array}$$

Hence, ₹ 8,962.40 remains with him.

2. Cost of 1 cycle = ₹ 1,075.50
 Cost of 52 cycles = $52 \times 1,075.50$
 $= ₹ 55,926$

$$\begin{array}{r} 1075.50 \\ \times 52 \\ \hline 2151.00 \\ + 53775.00 \\ \hline 55926.00 \end{array}$$

Hence, the cost of 52 cycles is ₹ 55,926.

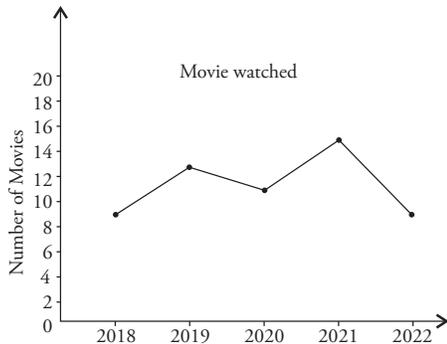
- D. Do yourself.
 E. Do yourself.



**CHAPTER-15
Data Handling**

- A. 1. 11°C .
 2. 4 January and 30 January.
 3. 18 January
 4. 3 January, 7 January and 24 January.

B.



- C. 1. Fish caught by Mahesh = $3 \times 6 = 18$ fish
 Hence, Mahesh caught 18 fish.
 2. Fish caught by Reema = $6 \times 6 = 36$ Fish
 Hence, Reema caught 36 fish.
 3. Fish caught by Kiran = $3 \times 6 = 18$ fish
 Hence, Kiran caught 18 fish.

4. Fish caught by Reema = $6 \times 6 = 36$ fish
 Fish caught by Jayant = $2 \times 6 = 12$ fish
 More fish caught by Reema = $36 - 12 = 24$ fish
 Hence, Reema caught 24 more fish than Jayant.

5. Fish caught by Reema = $6 \times 6 = 36$ fish
 Fish caught by Jaya = $7 \times 6 = 42$ fish
 Fish caught by Kiran = $3 \times 6 = 18$ fish
 Total fish caught by girls = $36 + 42 + 18 = 96$ fish

Hence, total 96 fish are caught by the girls.

6. Fish caught by Mahesh = $3 \times 6 = 18$ fish
 Fish caught by Jayant = $2 \times 6 = 12$ fish
 Total fish caught by boys = $18 + 12 = 30$ fish

Hence, total 30 fish are caught by the boys.

7. Total fish caught by girls = 96
 Total fish caught by boys = 30
 More fish caught by girls = $96 - 30 = 66$ fish
 Hence, the girls caught 66 fish more than boys.

8. Fish caught by Jayant = $2 \times 6 = 12$ fish
 Fish caught by kiran = $3 \times 6 = 18$ fish
 Total fish caught by Jayant and kiran together = $12 + 18 = 30$ fish

Hence, Jayant and kiran caught 30 fish.

Creative Approach

- A. 1. (c) The member 12 is represented by tally marks as
 $\text{||||} \text{||||} \text{||}$
 2. (b) Given, * = 3
 So, ***** = $3 \times 5 = 15$
 Hence, ***** will represent 15.

3. (c) Tally mark of 7 will be $\text{||||} \text{||}$.
4. (b) Tally mark $\text{||||} \text{||||} \text{||}$ represents 13.
5. (c) Tally mark of 9 will be $\text{||||} \text{||||}$.
- B.** 1. Delhi has the highest temperature.
2. Mumbai and kolkata have equal temperature.
3. The temperature of chennai is 30°C .
- C.** Do yourself.
- D.** 1. We get the information about population of various cities from the given bar graph.
2. Two cities Bharatpur and Udaipur have population less than 7 lakhs.
3. Four cities Jaipur, Bharatpur, Ajmer and Udaipur have population more than 4 lakhs.

□□

CHAPTER-16

Algebra

- A.** 1. Let the points scored by Ravi be x .
Point scored by a player = 5 more points than Ravi
$$= x + 5$$
2. ₹ $(20 - d)$
3. $C \div 23$
4. Let the height of the sister be x .
Height of the brother = twice the height of the sister
$$= 2 \times x$$

$$= 2x$$
5. Let Anna run x miles.
Friend run = 6 more miles than Anna
$$= (x + 6) \text{ miles}$$
6. $12 - n$.
7. Let the number of hours be x .
Meera's earning = ₹ $(300 \times x)$
$$= ₹ 300x$$
8. $8W$
9. $(682 + b)$
10. Let the students be x
Rulers to be divided = 83
$$= 83 \div x,$$
- B.** 1. Manish's income is 7 times his wife's income.
2. 'a' pencils have been lost out of 32 pencils.
- C.** 1. Let the number be n
Four times of number = $4n$

Four times of number, decreased by six
$$= (4n - 6)$$

2. Let the number be n
Product of 2 and the number = $2n$
Product of 2 and the number, divided by 5
$$= (2n \div 5)$$
3. Let the number be n
7 less than the number = $(n - 7)$
4. Quotient of four and $e = (4 \div e)$
5. Let the number be x
Sum of 9 and the number = $9 + x$
Six times the sum of nine and the number
$$= 6(9 + x)$$
6. Let the number be n .
Difference of thirteen and six = $(13 - 6)$
Difference of thirteen and six multiplied by the number = $n(13 - 6)$.
7. Let the number be x
Ten times of the number = $10 \times x$
$$= 10x$$

Sum of ten times of the number and
$$12 = (10x + 12)$$
8. Quotient of 20 and $x = (20 \div x)$
Quotient of 20 and x , increased by seven
$$= (20 \div x) + 7$$
9. Let the number be x
The difference of 16 and the number = $(16 - x)$
The difference of 16 and the number, divided by 2
$$= (16 - x) \div 2.$$
10. Let the number be x
Sum of 14 and the number = $(14 + x)$
8 fewer than the sum of 14 and the number
$$= (14 + x) - 8.$$
- D.** 1. Six less than three times a number.
2. Sum of 5 and 3.
- E.** 1. $10x - 8x + 2 + 10$
$$= 2x + 12$$
2. $3a + 7 + 2(3 + a)$
$$= 3a + 7 + 6 + 2a$$

$$= 3a + 2a + 7 + 6$$

$$= 5a + 13$$
3. $3(m - 5) + m$
$$= 3m - 15 + m$$

$$= 3m + m - 15$$

$$= 4m - 15$$

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4. $2s + 10 - 7s - 8 + 3s - 7$
 $= 2s - 7s + 3s + 10 - 8 - 7$
 $= -2s - 5$
 $= -(2s + 5)$
5. $8c - 4 - 2c + 5$
 $= 8c - 2c - 4 + 5$
 $= 6c + 1$
6. $-4 + 7z + 3 - 2z$
 $= 7z - 2z + 3 - 4$
 $= 5z - 1$
7. $15 + 4(5y - 10)$
 $= 15 + 20y - 40$
 $= 20y - 40 + 15$
 $= 20y - 25$
 $= 5(4y - 5)$
8. $2d + 17 - 3 - 2d + 4d$
 $= 2d - 2d + 4d + 17 - 3$
 $= 4d + 14$
 $= 2(2d + 7)$
9. $12n - 8 - 2n + 10 - 4$
 $= 12n - 2n - 8 + 10 - 4$
 $= 10n - 2$
 $= 2(5n - 1)$
10. $8(2k + 1 + 3k)$
 $= 8(5k + 1)$
 $= 40k + 8$
11. $4(2b + 2) - 3$
 $= 8b + 8 - 3$
 $= 8b + 5$
12. $-4 + 8p - 6p - 5 + 20p$
 $= 8p - 6p + 20p - 4 - 5$
 $= 22p - 9$

Creative Approach

A. 1. $\frac{z^2 - (x + y)}{3xyz}$
 $= \frac{(5)^2 - (2 + 3)}{3(2)(3)(5)}$
 [Putting the value of $x = 2$, $y = 3$ and $z = 5$]
 $= \frac{25 - 5}{90}$
 $= \frac{20}{90}$
 $= \frac{2}{9}$

Hence, the value of $\frac{z^2 - (x + y)}{3xyz}$ will be $\frac{2}{9}$.

2. (b) $\frac{2x + 13}{5} = x + 1$
 $\Rightarrow 2x + 13 = 5(x + 1)$
 $\Rightarrow 2x + 13 = 5x + 5$
 $\Rightarrow 13 - 5 = 5x - 2x$
 $\Rightarrow 8 = 3x \Rightarrow x = \frac{8}{3}$

Hence, the value of x is $\frac{8}{3}$.

3. (d) $13x = 247$
 $x = \frac{247}{13}$
 $x = 19$

Hence, the value of x is 19.

4. (d) Let the number be x
 7 times of the number $= 7 \times x = 7x$
 Given, 7 times the number is 98.

$\therefore 7x = 98$
 $x = \frac{98}{7}$
 $x = 14$

Hence, the number is 14.

5. (b) $2(5x + 3) - 1 = 65$
 $\Rightarrow 10x + 6 - 1 = 65$
 $\Rightarrow 10x + 5 = 65$
 $\Rightarrow 10x = 65 - 5$
 $\Rightarrow 10x = 60$
 $\Rightarrow x = \frac{60}{10}$

$\Rightarrow x = 6$
 Hence, the value of x is 6.

B. Do yourself.

C. 1. $4(2b + 2) - 5 = 0$
 $\Rightarrow 8b + 8 - 5 = 0$
 $\Rightarrow 8b + 3 = 0$
 $\Rightarrow 8b = 0 - 3$
 $\Rightarrow 8b = -3$
 $\Rightarrow b = \frac{-3}{8}$

2. $8(2k - 1 + 5k) = 0$
 $\Rightarrow 8(7k - 1) = 0$

$$\begin{aligned} \Rightarrow 56k - 8 &= 0 \\ \Rightarrow 56k &= 0 + 8 \\ \Rightarrow 56k &= 8 \\ \Rightarrow k &= \frac{8}{56} \Rightarrow k = \frac{1}{7} \end{aligned}$$

- D. 1. Given, side of the triangle
= 6 cm, 7.5 cm and 8.2 cm.

$$\begin{aligned} \text{Perimeter of the triangle} &= \text{sum of all sides} \\ &= 6 + 7.5 + 8.2 \\ &= 21.7 \text{ cm} \end{aligned}$$

$$\begin{array}{r} 6 \cdot 0 \\ 7 \cdot 5 \\ + 8 \cdot 2 \\ \hline 21 \cdot 7 \end{array}$$

Hence, the perimeter of the triangle is 21.7 cm.

2. Given, Equal sides of the isosceles triangle = 7 cm.

also, third side = 8.5 cm

$$\begin{aligned} \text{Perimeter of the triangle} &= \text{Sum of all sides} \\ &= 7 + 7 + 8.5 \\ &= 22.5 \text{ cm} \end{aligned}$$

$$\begin{array}{r} 7 \cdot 0 \\ 7 \cdot 0 \\ + 8 \cdot 5 \\ \hline 22 \cdot 5 \end{array}$$

Hence, the perimeter of the triangle is 22.5 cm.

□□

Test Yourself

1. Sum of 5.231 and 15.75 = 5.231 + 15.75
= 20.981

$$\begin{array}{r} 5 \cdot 231 \\ + 15 \cdot 75 \\ \hline 20 \cdot 981 \end{array}$$

- Sum of 3.75 and 23.85 = 3.75 + 23.85
= 27.60

$$\begin{array}{r} 3 \cdot 75 \\ + 23 \cdot 85 \\ \hline 27 \cdot 60 \end{array}$$

Now, difference of 27.60 and 20.981

$$= 27.60 - 20.981 = 6.619$$

$$\begin{array}{r} 27 \cdot 600 \\ - 20 \cdot 981 \\ \hline 6 \cdot 619 \end{array}$$

Hence, the required answer is 6.619.

2. (a) $16.8 \times 3.6 =$

$$\begin{array}{r} 16 \cdot 8 \\ \times 3 \cdot 6 \\ \hline 1008 \\ + 504 \\ \hline 6048 \end{array}$$

Hence, $16.8 \times 3.6 = 60.48$

- (b) $148.2 \times 3.42 =$

$$\begin{array}{r} 148 \cdot 2 \\ \times 3 \cdot 42 \\ \hline 2964 \\ 59280 \\ + 444600 \\ \hline 506844 \end{array}$$

Hence, $148.2 \times 3.42 = 506.844$

3. (a) $23.8384 \div 12.8 =$

$$\Rightarrow 238.384 \div 128$$

$$128 \overline{)238.384} (1.862375$$

$$\begin{array}{r} -128 \\ \hline 1103 \\ -1024 \\ \hline 798 \\ -768 \\ \hline 304 \\ -256 \\ \hline 480 \\ -384 \\ \hline 960 \\ -896 \\ \hline 640 \\ -640 \\ \hline 0 \end{array}$$

Hence, $23.8384 \div 12.8 = 1.862375$

134 Mathematics Answer Key 1 to 5

$$\begin{array}{r}
 \text{(b)} \quad 0.4572 \div 1.2 \\
 \Rightarrow \quad 4.572 \div 12 \\
 12 \overline{)4.572} (0.381 \\
 \underline{-36} \\
 97 \\
 \underline{-96} \\
 12 \\
 \underline{-12} \\
 0
 \end{array}$$

Hence, $0.4572 \div 1.2 = 0.381$

4. (a) $\angle A = 90$ degrees.
 (b) The measure of $\angle C$ is 90° .
 (c) AB is parallel to DC.
 (d) AD is parallel to BC.
5. (a) OA, OS, OR, OT, OB
 (b) AB, RS
 (c) PQ, RS, SB, AB
6. Weight of 6 bottles of juice = 12.06 kg
 Weight of 1 bottle of juice = $12.06 \div 6$

$$\begin{array}{r}
 = 2.01 \text{ kg} \\
 6 \overline{)12.06} (2.01 \\
 \underline{-12} \\
 006 \\
 \underline{-6} \\
 0
 \end{array}$$

Hence, weight of each bottles is 2.01 kg.

7. Cost of 12 soft-toys = ₹ 2,640.60
 Cost of 1 soft-toy = $2,640.60 \div 12$
 = ₹ 220.05
- $$\begin{array}{r}
 12 \overline{)2640.60} (220.05 \\
 \underline{-24} \\
 24 \\
 \underline{-24} \\
 060 \\
 \underline{-60} \\
 0
 \end{array}$$

Now, cost of 7 soft-toys = 220.05×7
 = ₹ 1,540.35

$$\begin{array}{r}
 2200.05 \\
 \times 7 \\
 \hline
 15400.35
 \end{array}$$

Hence, The cost of 7 soft-toys is ₹ 1,540.35

8. Sum of $5\frac{1}{3}$ and $1\frac{2}{5} = 5\frac{1}{3} + 1\frac{2}{5}$

$$\begin{aligned}
 &= \frac{(5 \times 3) + 1}{3} + \frac{(5 \times 1) + 2}{5} \\
 &= \frac{15 + 1}{3} + \frac{5 + 2}{5} \\
 &= \frac{16}{3} + \frac{7}{5} \\
 &= \frac{16 \times 5}{3 \times 5} + \frac{7 \times 3}{5 \times 3}
 \end{aligned}$$

[\because LCM of 3 and 5 is 15]

$$\begin{aligned}
 &= \frac{80}{15} + \frac{21}{15} \\
 &= \frac{80 + 21}{15} \\
 &= \frac{101}{15}
 \end{aligned}$$

Now,

$$\begin{aligned}
 &= 16\frac{9}{20} - \frac{101}{15} \\
 &= \frac{(16 \times 20) + 9}{20} - \frac{101}{15} \\
 &= \frac{329}{20} - \frac{101}{15} \\
 &= \frac{329 \times 3}{20 \times 3} - \frac{101 \times 4}{15 \times 4}
 \end{aligned}$$

[\because LCM of 20 and 15 is 60.]

$$\begin{aligned}
 &= \frac{987 - 404}{60} \\
 &= \frac{583}{60} \\
 &= 9\frac{43}{60}
 \end{aligned}$$

Hence, the answer is $9\frac{43}{60}$.

$$\begin{aligned}
 9. \quad \text{Weight of 7 books} &= 11\frac{2}{3} \text{ kg} \\
 &= \frac{(11 \times 3) + 2}{3} \\
 &= \frac{33 + 2}{3} \\
 &= \frac{35}{3} \text{ kg} \\
 \text{Weight of 1 book} &= \frac{35}{3} \div 7 \\
 &= \frac{35}{3 \times 7} \\
 &= \frac{35}{21} \\
 &= 1 \text{ kg}
 \end{aligned}$$

Hence, each books weight 1 kg.

$$\begin{aligned}
 10. \quad \text{Given,} \quad \text{HCF} &= 25 \\
 \text{also,} \quad \text{LCM} &= 375 \\
 \text{also,} \quad \text{Firsh number} &= 15 \\
 \text{Let the other number be } x. \\
 \text{We know that, } \text{LCM} \times \text{HCF} &= \text{product of two numbers} \\
 \therefore \quad 375 \times 25 &= 15 \times x \\
 x &= \frac{375 \times 25}{15} \\
 x &= 625
 \end{aligned}$$

Hence, the other number is 625.

$$\begin{aligned}
 11. \quad \text{Principle (P)} &= ₹ 25,000 \\
 \text{Rate of interest (R)} &= 8\% \text{ per annum.} \\
 \text{Time (T)} &= 2 \text{ years} \\
 \text{Interest} &= \frac{P \times R \times T}{100} \\
 &= \frac{25000 \times 8 \times 2}{100} \\
 &= 4,000 \\
 \text{Amount} &= \text{Principle} + \text{Interest} \\
 &= 25,000 + 4,000 \\
 &= ₹ 29,000
 \end{aligned}$$

Hence, vivek will pay ₹ 29,000 afte 2 years.

$$\begin{aligned}
 12. \quad \text{LCM of 12, 18, 27 and 35} \\
 &= 2 \times 2 \times 3 \times 3 \times 3 \times 7 \times 5 \\
 &= 3,780
 \end{aligned}$$

2	12	,	18	,	27	,	35
2	6	,	9	,	27	,	35
3	3	,	9	,	27	,	35
3	1	,	3	,	9	,	35
3	1	,	1	,	3	,	35
5	1	,	1	,	1	,	7
7	1	,	1	,	1	,	7
	1	,	1	,	1	,	1

Given, remainder = 5
 So, Number will be = $3780 + 5$
 = 3785

Hence, the number is 3785.

$$\begin{aligned}
 13. \quad \text{Given, perimeter of equilateral triangle} &= 4.521 \text{ cm} \\
 \text{We know that, perimeter of equilateral triangle} &= 3 \times \text{side}
 \end{aligned}$$

$$\begin{aligned}
 \therefore \quad 4.521 &= 3 \times \text{side} \\
 \text{side} &= \frac{4.521}{3} = 1.507 \text{ cm} \\
 &3 \overline{)4.521} (1.507 \\
 &\underline{-3} \\
 &15 \\
 &\underline{-15} \\
 &021 \\
 &\underline{-21} \\
 &0
 \end{aligned}$$

Hence, the side of the triangle is 1.507 cm.

$$\begin{aligned}
 14. \quad \text{Given, length } (l) \text{ of the box} &= 12 \text{ cm} \\
 \text{breadth } (b) \text{ of the box} &= 4 \text{ cm} \\
 \text{Thickness (height) of the box} &= 2 \text{ cm} \\
 \text{Volume of the box} &= l \times b \times h \\
 &= 12 \times 4 \times 2 \\
 &= 96 \text{ cm}^3
 \end{aligned}$$

Hence, the volume of the box is 96 cm^3 .

$$\begin{aligned}
 15. \quad (a) &= 2\frac{1}{2} \\
 &= \frac{(2 \times 2) + 1}{2} \\
 &= \frac{5}{2} \times 100\% \\
 &= 250\%
 \end{aligned}$$

- (b) $= 3\frac{3}{4}$
 $= \frac{(4 \times 3) + 3}{4} = \frac{15}{4}$
 $= \frac{15}{4} \times 100\%$
 $= 375\%$
16. (a) $= 80\%$
 $= \frac{80}{100} = \frac{4}{5}$
- (b) $= 10\%$
 $= \frac{10}{100} = \frac{1}{10}$
17. 35% of ₹ 180
 $= 180 \times 35\%$
 $= 180 \times \frac{35}{100}$
 $= ₹ 63$
- Hence, 35% of ₹ 180 is ₹ 63.
18. Do yourself.
19. (a) Studying
 (b) Eating
 (c) Watching TV and playing Tennis
20. Volume of a brick = $24 \times 14 \times 15$
 Given, Measures of the wall
 $= 14 \text{ m} \times 8 \text{ m} \times 18 \text{ cm}$
 $= 1400 \text{ cm} \times 800 \text{ cm} \times 18 \text{ cm}$
 [∵ 1 m = 100 cm]
 Volume of the wall = $1400 \times 800 \times 18$
 No. of bricks required
 $= \frac{\text{Volume of the wall}}{\text{Volume of a brick}}$
 $= \frac{1400 \times 800 \times 18}{24 \times 14 \times 15}$
 $= 4,000$
 Hence, 4,000 bricks will be required to make the wall.
21. Given, perimeter of the square field = 136 m
 We know that, perimeter of a square
 $= 4 \times \text{side}$
 ∴ $136 = 4 \times \text{side}$

- side = $\frac{136}{4}$
 side = 34 m
 Now, area of the square field = side × side
 $= 34 \times 34$
 $= 1156 \text{ m}^2$
 Hence, the area of the square field is 1156 m².
22. Given, Length of the room = 12 m
 also, width of the room = 8 m
 Area of ceiling = length × width
 $= 12 \times 8$
 $= 96 \text{ m}^2$
 Cost of ceiling = 5.40×96
 $= ₹ 518.40$
- $$\begin{array}{r} 5.40 \\ \times 96 \\ \hline 3240 \\ 48600 \\ \hline 518.40 \end{array}$$
- Hence, the cost of white washing is ₹ 518.40.
23. CP of plot = ₹ 12,50,000
 Expenditure on plot = ₹ 50,000
 Total CP = CP + Expenses
 $= 12,50,000 + 50,000$
 $= ₹ 13,00,000$
 SP of plot = ₹ 15,75,000
 SP > CP
 So, there will be profit.
 Profit = SP – CP
 $= ₹ 15,75,000 - 13,00,000$
 $= ₹ 2,75,000$
 Hence, the profit of ₹ 2,75,000 is made by him.
24. (a) $0^\circ \text{ F} = -17.7^\circ \text{ C}$
 Hence, 0° F is colder than 0° C .
 (b) $25^\circ \text{ F} = -3.88^\circ \text{ C}$
 Hence, 25° F is better for a picnic.
 (c) $65^\circ \text{ F} = 18.33^\circ \text{ C}$
 Hence, 65° F is comfortable.
 (d) $-28^\circ \text{ F} = -33.33^\circ \text{ C}$
 Hence, -28° F is better for outdoor ice skating.