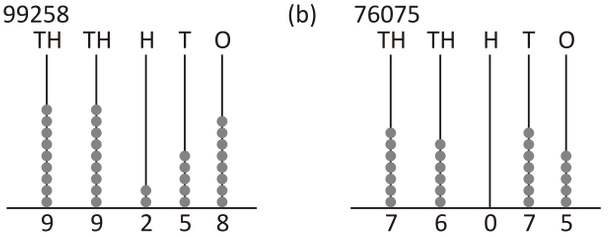
Chapter

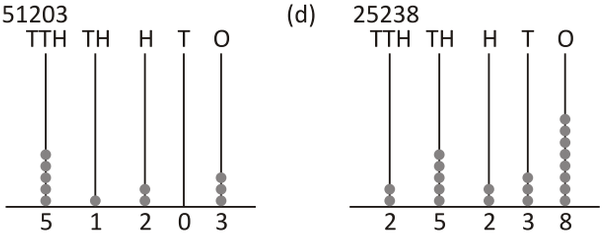
1 Numbers After 9999

EXERCISER-1.1

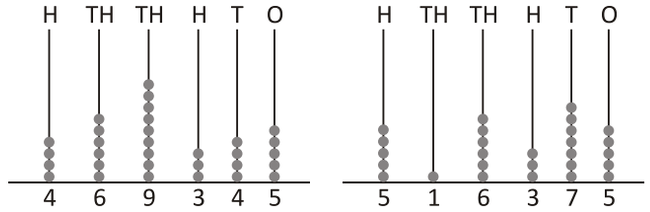
(a) 99258 (b) 76075



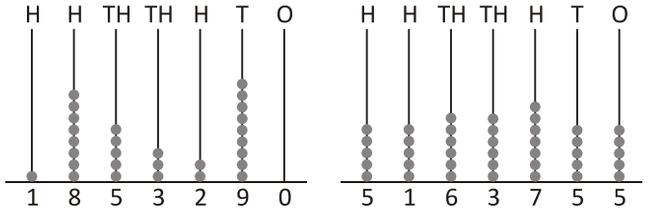
(c) 51203 (d) 25238



(e) 469345 (f) 516375



(g) 1853290 (h) 2597163



3. (a) TTH TH H T O
3 7 3 4 1—Thirty seven thousand three hundred forty one.

(b) TTH TH H T O
5 0 9 6 7—Fifty thousand nine hundrd sixty seven.

(c) TTH TH H T O
9 0 0 0 9—Ninety thousand and nine.

(d) TTH TH H T O
8 1 5 0 6—Eighty one housand five hundred six.

(e) L TTH TH H T O
4 7 3 5 0 9—Four lakh seventy three thousand five hundred nine.

(f) L TTH TH H T O
7 5 0 0 0 1—Seven lakh fifty thousand one.

(g) TH L TTH TH H T O
4 3 4 5 6 7 8—Forty three lakh forty five thousand six hundred seventy eight.

(h) L TTH TH H T O
7 1 4 7 8 9—Seven lakh fourteen thousand seven hundred eighty nine.

4. (a) TH L TTH TH H T O
5 0, 0 0, 9 7 9;

(b) TTH TH H T O
2 5, 2 3 6

(c) TTH TH H T O
9 2, 7 1 1;

(d) L TTH TH H T O
4, 2 0, 3 3 4

(e) TH L TTH TH H T O
7 0, 4 4, 5 2 9;

(f) L TTH TH H T O
8, 2 9, 3 4 8

(g) L TTH TH H T O
3, 7 7, 4 9 7;

(h) L TTH TH H T O
9, 0 4, 3 0 5

EXERCISE 1.2

1. (a) lakh thousand ones
② 6, ⑨ 2, 4 3 ⑧

8 — 8
9 — 90,000
2 — 20,00,000

(b) lakh thousand ones
⑥ 0, ⑥ 0, ⑥ 0 0

6 — 60,00,000
6 — 60,000
6 — 600

(c) lakh thousand ones
5 ②, 0 ⓪, 9 2 4

2 — 2,00,000
0 — 0

(d) lakh thousand ones
1 ⓪, 1 ⓪, 1 0 0

1 — 10,00,000
1 — 100

(e) lakh thousand ones
⑦ 3, 2 ④, 2 1 ⑤

7 — 70,00,000
4 — 4,000
5 — 5

(f) lakh thousand ones
④ 5, ② 9, ⓪ 0 8

5 — 50,000
0 — 0

(g) lakh thousand ones
① 5, 0 ③, 9 0 0

1 — 10,00,000
3 — 3,000

(h) lakh thousand ones
④ 1, 2 0, ⑥ 3 ②

4 — 40,00,000
6 — 600
2 — 2

(i) lakh thousand ones
⑧ 4, ④ 3, 2 ⑦

8 — 8,00,000
4 — 4,000
7 — 7

(j) lakh thousand ones
9 ⑨, 0 0, 0 0 ⑨

5 — 50,000
0 — 0

(k) lakh thousand ones
④ 3, 2 ④, 8 9 4

4 — 40,00,000
4 — 400
4 — 4

(l) lakh thousand ones
⑥ 8, 4 8, ⑥ 2 ④

6 — 60,00,000
6 — 600

2. (a) 46259 = **4** T-th + **6** Th + **2** H + **5** Tens + **9** Ones

(b) 603591 = **600000** + 3000 + **500** + 90 + **1**

(c) 450020 = (4 × **100000**) + (**5** × 10000) + (2 × **10**)

3. (a) thousand ones
2 7, 0 1 5
20,000 + 7000 + 00 + 10 + 5

(b) lakh thousand ones
9, 0 2, 5 0 1
9,00,000 + 0,000 + 2,000 + 500 + 00 + 1

(c) lakh thousand ones
1, 0 0, 0 3 2
1,00,000 + 0000 + 000 + 00 + 30 + 2

(d) lakh thousand ones
1 7, 6 2, 9 0 4
10,00,000 + 7,00,000 + 60,000 + 2,000 + 900 + 00 + 4

(e) lakh thousand ones
2 4, 7 9, 8 1 6
20,00,000 + 4,00,000 + 70,000 + 9,000 + 800 + 10 + 6

4. (a) 1000000 + 7000 + 800 + 2 = **10,07,802**

(b) 200000 + 300 + 90 + 1 = **2,00391**

(c) 400000 + 30000 + 7000 + 900 + 80 = **4,37,980**

(d) 600000 + 80000 + 9000 + 70 + 5 = **689075**

EXERCISE 1.4

1. (a) Smallest – 24,689, Greatest – 98,642

(b) Smallest – 70,789, Greatest – 98,770

(c) Smallest – 10,689, Greatest – 98,610

(d) Smallest – 10,12,458, Greatest – 85,42,110

(e) Smallest – 1,05,689, Greatest – 9,86,510

(f) Smallest – 10,24,789, Greatest – 98,74,210

2. (a) Greatest – 9,99,754, Smallest – 4,44,579

(b) Greatest – 8,88,430, Smallest – 3,00,048

(c) Greatest – 9,99,620, Smallest – 2,00,069

3.

Predecessor	**Successor**
680198	680200
205689	205691
789998	790000

EXERCISE 1.5

1. (a) 110, (b) 1820, (c) 240, (d) 7010

2. (a) 7400, (b) 700, (c) 9300, (d) 900

3. (a) 9000, (b) 13000, (c) 20,000, (d) 46000

Multiple Choise Questions

1. (b), **2.** (a), **3.** (c)

Chapter

2 Addition and Subtraction

1. (a) 59993 Fifty nine thousand nine hundred ninety three.

(b) 100097 One lakh ninety seven.

(c) 79988 Seventy nine thousand nine hundred eighty eight.

(d) 47738 Forety seven thousand seven hundred thirty eight.

(e) 81247 eighty one thousand two hundred forty seven

(f) 105018 One lakh five thousand eighteen.

(g) 86331 Eighty six thousand three hundred thirty one.

(h) 91415 Ninety one thousand four hundred fifteen.

(i) 84901 Eighty four thousand nine hundred one.

2. (a)

TTH	TH	H	T	O
① 3	① 4	5	① 6	7
2	6	8	1	4
+		2	1	2
6	1,	5	9	3

(b)

TTH	TH	H	T	O
① 3	② 8	① 9	4	3
3	4	5	6	0
+	4	6	1	4
7	8	1	1	7

(c)

L	TTH	TH	H	T	O
① 7	① 7	① 7	① 7	① 7	2
3	3	3	3	3	6
+	1	0	3	4	5
11	2	2,	2	2	3

(d)

L	TTH	TH	H	T	O
7	① 0	① 8	② 9	① 3	6
	2	4	9	6	8
+				8	6
7	3	3,	9	9	0

(e)

L	TTH	TH	H	T	O
② 7	① 9	6	① 1	① 2	3
7	9	6	3	8	7
+ 7	8	3	4	5	6
23	5	5,	9	6	6

(f)

T	L	TTH	TH	H	T	O
① 2	① 4	② 3	① 9	① 2	② 6	8
	4	7	6	8	2	5
+	2	7	8	1	1	7
3	1	9	4	2	1	0

3. (a)

1	4	1	2	**5**
+ 6	2	**8**	1	4
7	**6**	9	3	9

(b)

1	0	0	8	**9**
+ 6	**6**	7	**0**	0
7	6	7	8	9

(c)

	① 6	① 4	9	3	4
+	**3**	1	3	**8**	**1**
	6	**6**	3	1	5

(d)

① **4**		① 3	① **8**	**1**	9
+ 4		8	6	9	6
9		**1**	5	**1**	5

(e)

① **5**	4	① **8**	9	**1**
+ 5	6	**3**	3	5
11	*	2	**2**	6

(f)

	6	7	① **8**	9
+ 5	3	*		8
1*	1	6	7	

EXERCISE 2.2

1. (a) 42359, (b) 73208, (c) 0, (d) 35285, (e) 32015, (f) 45251

(g) 11520, (h) 12507, 52036, (i) 7416, (j) 46215

EXERCISE 2.3

1. Cost of cor = 1,75,000

cost of house = 68,500

cost of refrigerator = 15,528

Total money spend altogether =

L	TTH	TH	H	T	O
② 1	① 7	① 5	0	0	0
	6	8	5	0	0
+	1	5	5	2	8
2,	5	9,	0	2	8

Ans. He spend ₹ 2,59,028 altogether.

2. Bulles produced in the monht of January = 28,425

Bulles produced in the month of February 15,200

Bulles produced in the month of March = 30,526

Total Bulles =

TTH	TH	H	T	O
① 3	① 0	5	① 2	6
2	8	4	2	5
+ 1	5	2	0	0
7	4,	1	5	1

Ans. 74,151 bulles were produced in the three months.

3. Money colloected by class 1- 15,400

Money collected by class 2 - 14,728

Money collected by class 3 - 15,600

Money collected by class 4 - 21,700

Total collection =

TTH	TH	H	T	O
① 2	② 1	7	0	0
1	5	6	0	0
1	5	4	0	0
+ 1	4	7	2	8
6	7,	4	2	8

Ans. ₹ 67,428 was collected by school for the flood relief fund.

4. No. of English books = 13700

No. of Hindi books = 38332

Total books in library =

TTH	TH	H	T	O
① 1	① 3	7	0	0
+ 3	8	3	3	2
5	2,	0	3	2

Ans. 52,032 books are there in the library.

5. No. of men in a town = 1,56,466
No. of women in a town = 98,580
No. of children in a town = 50,400
Total population of town =

	L	TTH	TH	H	T	O
	②	①	①	①		
	1	5	6	4	6	6
		9	8	5	8	0
+		5	0	4	0	0
	3	0	5	4	4	6

Ans. Total population of twon is 3,05,446.

EXERCISE 2.4

1. (a) 7 14 5 11 15 / 7 4 6 2 5 − 2 5 0 3 6 = **4 9 5 8 9**

(b) 5 16 9 15 / 6 7 0 5 8 − 4 7 8 6 4 = **1 9 1 9 4**

(c) 9 6 18 / 5 0 7 8 2 − 6 3 9 2 = **4 3 3 9 0**

(d) 3 12 5 9 15 / 4 2 6 0 5 − 2 3 0 4 7 = **1 9 5 5 8**

(e) 6 9 10 4 14 / 6 0 0 5 4 − 6 4 3 6 = **6 3 6 1 8**

(f) 7 13 13 / 8 4 3 4 5 − 7 8 7 4 5 = **0 5 6 0 0**

(g) 8 9 17 18 12 10 / 9 0 8 9 3 0 − 4 7 8 9 3 2 = **4 2 9 9 9 8**

(h) 13 17 / 3 4 7 8 9 6 − 8 9 7 8 5 = **2 5 8 1 1 1**

(i) 4 13 16 17 13 / 5 4 7 8 3 7 − 4 7 8 9 2 = **4 9 9 9 4 5**

2. (a)

TTH	TH	H	T	O
8	9	3	0	1
− 4	5	7	8	9
4	**3**	**5**	**1**	**2**

(b)

TTH	TH	H	T	O
7	7	2	1	1
− 7	4	5	0	3
0	**2**	**7**	**0**	**8**

(c)

TTH	TH	H	T	O
4	0	9	8	3
− 3	4	7	8	9
0	**5**	**1**	**9**	**4**

(d)

TTH	TH	H	T	O
6	5	2	0	1
− 6	4	3	1	2
0	**0**	**8**	**8**	**9**

(e)

L	TTH	TH	H	T	O
6	6	7	0	8	6
+ 5	0	7	8	1	3
0	**5**	**9**	**2**	**7**	**3**

(f)

L	TTH	TH	H	T	O
8	8	0	0	0	5
+ 7	7	3	0	1	2
1	**0**	**6**	**9**	**9**	**3**

3. (a) 4 12 8 14 / 3 5 2 9 4 − 1 2 **6 3** 8 = **2 2 6 5 6**

(b) 11 18 10 / 5 2 9 10 − 4 9 **9 8** = **0 2 6 2**

(c) 2 11 11 7 11 / 3 2 1 8 1 − **0** 5 6 **3 9** = **2 6** 5 4 2

(d) 5 14 9 12 11 / 6 5 0 3 1 − **2** 6 **9** 5 9 = **3 8 0 7** 2

(e) 7 9 9 3 15 / 8 0 0 4 5 − **3** 3 3 3 8 = **4 6 6 0 7**

(f) 4 10 10 9 16 / 5 1 1 0 6 − 3 4 **4** 1 7 = **1 6** 6 8 9

EXERCISE 2.5

(a) 56123 – 0 = **56123**, (b) 87183 – 10 = **87,173**

(c) 76423 – 1 = **76422**, (d) 97180 – 100 = **97,080**

(e) **71325** – 1 = 71324, (f) **38124** – 0 = 38124

(f) 94813 – 1000 = **93813**, (g) 63241 – 63241 = **0**

EXERCISE 2.6

1. (a)

TTH	TH	H	T	O
8	6	8	4	1
− 5	3	0	7	4
3	**3**	**7**	**6**	**7**

→

TTH	TH	H	T	O
3	**3**	**7**	**6**	**7**
+ 5	3	0	7	4
8	**6**	**8**	**4**	**1**

(b)

TTH	TH	H	T	O
6	6	2	0	6
− 5	4	8	9	2
0	**2**	**3**	**1**	**4**

→

TTH	TH	H	T	O
	2	**3**	**1**	**4**
+ 5	4	8	9	2
5	**7**	**2**	**0**	**6**

2.

Questions	Rounded Numbers		Estimated Difference	Exact Difference
171 – 49	(nearest 10)	170 – 50	120	122
3425 – 3315	(nearest 100)	3400 – 3300	100	110
5180 – 3992	(nearest 1000)	5000 – 4000	1000	1,188

EXERCISE 2.7

1. Total students in collage = 10395

No. of students absent = 1675

No. of students present =

TTH	TH	H	T	O
1	0	3	9	
−	1	6	7	5
0	8	7	2	0

Ans. 8720 students were present.

2. Total no. of mathematics text book to sell = 12343

No. of books are difective = 1632

No. of books are not defective =

TTH	TH	H	T	O
1	2	3	4	3
−	1	6	3	2
1	0	7	1	1

Ans. 10711 books are not defective.

3. Total no. of ice cream cups = 46357

No. of icecream cups left at the end of the day = 2986

No. of icecream cups sold =

TTH	TH	H	T	O
4	6	3	5	7
−	2	9	8	6
4	3	3	7	1

Ans. 43,371 icecream cups were sold during the day.

4. Total toys factory produced last year = 35000

Toys produced less this year = 3794

No. of toys manufactured this year =

TTH	TH	H	T	O
3	5	0	0	0
−	3	7	9	4
3	1	2	0	6

Ans. 31206 toys were manufacutured this year.

EXERCISE 2.8

1. Total no. of 160200

No. of elephants = 61509

No. of deer = 3780

No. of elephants and deer =

TTH	TH	H	T	O
6	1	5	0	9
+	3	7	8	0
6	5	2	8	9

No. of foxes = ?

$$\begin{array}{r} {\scriptstyle 15\ 9\ 11\ 9\ 10} \\ \not{6}\ \not{0}\ \not{2}\ \not{0}\ \not{0} \\ -\ 6\ 5\ 2\ 8\ 9 \\ \hline 9\ 4\ 9\ 1\ 9 \end{array}$$

Ans. The no. of foxes are 94,919

2. Total number of votyes = 52526

No. of votes candidate A got = 38525

No. of votes candidate B got = 5526

No. of votes candidate A and B got =

$$\begin{array}{r} \text{TTH}\ \ \text{TH}\ \ \text{H}\ \ \text{T}\ \ \text{O} \\ {\scriptstyle 1}\quad\ {\scriptstyle 1}\quad\quad\ {\scriptstyle 1} \\ 3\ \ 8\ \ 5\ \ 2\ \ 5 \\ +\ \ 5\ \ 5\ \ 2\ \ 6 \\ \hline 4\ \ 4\ \ 0\ \ 5\ \ 1 \end{array}$$

No. of votes candidate C get =

$$\begin{array}{r} {\scriptstyle 12\ 4\ 12} \\ 5\ \not{2}\ \not{5}\ \not{2}\ 6 \\ -\ 4\ 4\ 0\ 5\ 1 \\ \hline 0\ 8\ 4\ 7\ 5 \end{array}$$

Ans. Candidate C get 8475 votes.

3. Total capacity of oil bottles = 4500

No. of bottles of oil kept out = 2860

$$\begin{array}{r} \text{TH}\ \ \text{H}\ \ \text{T}\ \ \text{O} \\ {\scriptstyle 3}\quad {\scriptstyle 14}\quad {\scriptstyle 10} \\ 4\ \ 5\ \ 0\ \ 0 \\ -\ 2\ \ 8\ \ 6\ \ 0 \\ \hline 1\ \ 6\ \ 4\ \ 0 \end{array}$$

No. of oil bottles removed = 1214

No. of oil bottles left =

$$\begin{array}{r} \text{TH}\ \ \text{H}\ \ \text{T}\ \ \text{O} \\ \quad\quad {\scriptstyle 3}\quad {\scriptstyle 10} \\ 1\ \ 6\ \ 4\ \ 0 \\ -\ 1\ \ 2\ \ 1\ \ 4 \\ \hline \quad\ 4\ \ 2\ \ 6 \end{array}$$

Ans. 426 bottles of oil are left.

Chapter

3 Multiplication

1. (a) 15 × 1 **15**, (b) 4 × **0** × 5 = 0, (c) 27 × **1** = 27, (d) **16** × 1 = 16, (e) 1 × **1** = 1, (f) 0 × 0 = **0**, (g) 14 × 0 = **0**, (h) (3 × 4) × 2 = (2 × 3) × **4**, (i) 1 × 33 = **33**, (j) 16 × **0** = 0, (k) 15 × 8 = 8 × **15**, (l) 6 × 5 × **9** = 9 × 6 × **5**

EXERCISE 3.2

1. (a) $\begin{array}{r} 22 \\ \times\ 4 \\ \hline 88 \end{array}$ (b) $\begin{array}{r} {\scriptstyle 1}\ 36 \\ \times\ \ 3 \\ \hline 108 \end{array}$ (c) $\begin{array}{r} {\scriptstyle 2}\ 45 \\ \times\ \ 5 \\ \hline 225 \end{array}$ (d) $\begin{array}{r} {\scriptstyle 1}\ 97 \\ \times\ \ 2 \\ \hline 194 \end{array}$ (e) $\begin{array}{r} 3132 \\ \times\ \ \ 3 \\ \hline 9369 \end{array}$

(f) $\begin{array}{r} {\scriptstyle 6\ 2}\ 493 \\ \times\ \ \ 7 \\ \hline 3451 \end{array}$ (g) $\begin{array}{r} {\scriptstyle 1\ 3}\ 526 \\ \times\ \ \ 6 \\ \hline 3156 \end{array}$ (h) $\begin{array}{r} {\scriptstyle 3\ 2}\ 677 \\ \times\ \ \ 4 \\ \hline 2708 \end{array}$ (i) $\begin{array}{r} 2132 \\ \times\ \ \ 2 \\ \hline 4264 \end{array}$ (j) $\begin{array}{r} 3102 \\ \times\ \ \ 3 \\ \hline 9306 \end{array}$

(k) $\begin{array}{r} {\scriptstyle 1\ 1\ 1}\ 7232 \\ \times\ \ \ 5 \\ \hline 36160 \end{array}$ (l) $\begin{array}{r} 4212 \\ \times\ \ 2 \\ \hline 8424 \end{array}$ (m) $\begin{array}{r} 1232 \\ \times\ \ 3 \\ \hline 3696 \end{array}$ (n) $\begin{array}{r} 1212 \\ \times\ \ 4 \\ \hline 4848 \end{array}$

(o) $\begin{array}{r} 1333 \\ \times\ \ \ 3 \\ \hline 3999 \end{array}$ (p) $\begin{array}{r} 1231 \\ \times\ \ \ 3 \\ \hline 3693 \end{array}$

EXERCISE 3.3

1. (a) 782 × 10 = **7820**, (b) 648 × 100 = **64800**

(c) 325 × 100 = **32500** (d) 6354 × 10 = **63540**

(e) 4152 × 1000 = **4152000** (f) 9874 × 1000 = **9874000**

2. (a) 30 × (2 × 5) (b) 48 × (50 × 2) (c) 34 × (10 × 10)

30 × 10 48 × 100 34 × 100

= 300 = 4800 = 3400

3. (a) $\begin{array}{r} {\scriptstyle 5\ 2}\ 263 \\ \times\ \ 78 \\ \hline {\scriptstyle 1}\ 2104 \\ +\ 1841\times \\ \hline 20514 \end{array}$ (b) $\begin{array}{r} {\scriptstyle 2\ 2}\ 345 \\ {\scriptstyle 1}\ \times\ 65 \\ \hline 1725 \\ +\ 2070\times \\ \hline 22425 \end{array}$ (c) $\begin{array}{r} {\scriptstyle 1\ 1}\ 423 \\ {\scriptstyle 1}\ \times {\scriptstyle 1}36 \\ \hline 2538 \\ +\ 1269\times \\ \hline 15228 \end{array}$

4. (a) 252 × 30 (b) 126 × 40 (c) 628 × 900

$\begin{array}{r} 252 \\ \times\ 30 \\ \hline 000 \\ +\ 756\times \\ \hline 7560 \end{array}$ $\begin{array}{r} 126 \\ \times\ 40 \\ \hline 000 \\ +\ 504 \\ \hline 5040 \end{array}$ $\begin{array}{r} 628 \\ \times\ 900 \\ \hline 000 \\ 000\times \\ +\ 5652\times\times \\ \hline 565200 \end{array}$

5. (a) 276 × 7

= (200 +70 + 6) × 7

= (200 × 7) + (70 × 7) + (6 × 7)

= 1400 + 490 + 42

Ans. = 1932

(b) 694 × 8

= (600 + 90 + 4) × 8

= (600 × 8) + (90 × 8) + (4 × 8)

= (4800 + 720 + 32

Ans. = 5552

(c) 3285 × 5

= (3000 + 200 + 80 + 5) × 5

= (3000 × 5) + (200 × 5) + (80 × 5) + (5 × 5)

= 15000 + 1000 + 400 + 25

Ans. = 16425

EXERCISE 3.4

1. (a) $\begin{array}{r} {\scriptstyle 1\ 1}\ 642 \\ {\scriptstyle 1}\ \times\ 24 \\ \hline 2572 \\ +\ 1286\times \\ \hline 15432 \end{array}$ (b) $\begin{array}{r} {\scriptstyle 4\ 1}\ 362 \\ {\scriptstyle 1}\ \times\ 48 \\ \hline 2896 \\ +\ 1448\times \\ \hline 17376 \end{array}$

(c) $\begin{array}{r} {\scriptstyle 4\ 5\ 1}\ 546 \\ {\scriptstyle 1}\ \times\ 39 \\ \hline {\scriptstyle 1}\ 4914 \\ +\ 1638\times \\ \hline 21294 \end{array}$ (d) $\begin{array}{r} {\scriptstyle 6\ 4}\ 509 \\ {\scriptstyle 1}\ \times\ 57 \\ \hline 3563 \\ +\ 2545\times \\ \hline 29013 \end{array}$

(e) $\begin{array}{r} {\scriptstyle 1\ 2}\ 804 \\ \times\ 63 \\ \hline {\scriptstyle 1}\ 2412 \\ +\ 4824\times \\ \hline 50652 \end{array}$ (f) $\begin{array}{r} {\scriptstyle 1\ 4}\ 461 \\ \times\ 72 \\ \hline {\scriptstyle 1}\ \ 922 \\ +\ 3227\times \\ \hline 33192 \end{array}$

(g) $\begin{array}{r} {\scriptstyle 6\ 2\ 1}\ 593 \\ {\scriptstyle 1}\ \times\ 27 \\ \hline 4151 \\ +\ 1186\times \\ \hline 16011 \end{array}$ (h) $\begin{array}{r} {\scriptstyle 3\ 2}\ 709 \\ {\scriptstyle 1}\ \times\ 34 \\ \hline 2836 \\ +\ 2127\times \\ \hline 24106 \end{array}$ (i) $\begin{array}{r} {\scriptstyle 2\ 3}\ 158 \\ \times\ 94 \\ \hline 632 \\ +\ 1422\times \\ \hline 14852 \end{array}$

2. (a)

$$\begin{array}{r} {\scriptstyle ③\,①}\\ 652\\ \times\ 206\\ \hline {\scriptstyle ③}\,3912\\ 0000\times\\ +\,1304\times\times\\ \hline 134312 \end{array}$$

Ans. 134312

(b)

$$\begin{array}{r} {\scriptstyle ①\,②}\\ 135\\ \times\ 115\\ \hline {\scriptstyle ③}\,675\\ 135\times\\ +\,135\times\times\\ \hline 15525 \end{array}$$

Ans. 15525

(c)

$$\begin{array}{r} {\scriptstyle ①\,②\,①}\\ 426\\ \times\ 240\\ \hline {\scriptstyle ①}\,000\\ 1704\times\\ +\,852\times\times\\ \hline 102240 \end{array}$$

Ans. 102240

(d)

$$\begin{array}{r} {\scriptstyle ①\,④}\\ 308\\ \times\ 206\\ \hline {\scriptstyle ①}\,1848\\ 000\times\\ +\,616\times\times\\ \hline 63448 \end{array}$$

Ans. 63448

(e)

$$\begin{array}{r} {\scriptstyle ①\,④}\\ 708\\ \times\ 432\\ \hline 1416\\ {\scriptstyle ①}\,2124\times\\ +\,2832\times\times\\ \hline 305856 \end{array}$$

Ans. 305856

(f)

$$\begin{array}{r} 926\\ \times\ 351\\ \hline {\scriptstyle ①\,②}\,926\\ {\scriptstyle ①}\,4630\times\\ +\,2778\times\times\\ \hline 325026 \end{array}$$

Ans. 325026

(g)

$$\begin{array}{r} 437\\ \times\ 520\\ \hline {\scriptstyle ①}\,000\\ {\scriptstyle ①}\,874\times\\ +\,2185\times\times\\ \hline 227240 \end{array}$$

Ans. 227240

(h)

$$\begin{array}{r} 934\\ \times\ 612\\ \hline 1868\\ {\scriptstyle ①}\,934\times\\ +\,5604\times\times\\ \hline 571608 \end{array}$$

Ans. 571608

3. (a)

$$\begin{array}{r} {\scriptstyle ④\,②}\\ 7095\\ \times\ 85\\ \hline {\scriptstyle ①\,①}\\ {\scriptstyle ①}\,35475\\ 56760\times\\ \hline 603075 \end{array}$$

Ans. 603075

(b)

$$\begin{array}{r} {\scriptstyle ④\,⑥}\\ {\scriptstyle ②\,③}\\ 2609\\ \times\ 74\\ \hline {\scriptstyle ①}\\ 10436\\ 18263\times\\ \hline 193066 \end{array}$$

Ans. 193066

(c)

$$\begin{array}{r} {\scriptstyle ②\,③\,③}\\ {\scriptstyle ④\,⑤\,⑤}\\ 3456\\ \times\ 69\\ \hline 31104\\ +\,20736\times\\ \hline 238464 \end{array}$$

Ans. 238464

(d)

$$\begin{array}{r} {\scriptstyle ④\,⑥\,④}\\ {\scriptstyle ②\,③\,②}\\ 9687\\ \times\ 174\\ \hline {\scriptstyle ①\,①}\\ {\scriptstyle ①}\,38748\\ 67809\times\\ \hline 716838 \end{array}$$

Ans. 716838

(e)

$$\begin{array}{r} {\scriptstyle ⑦\,⑥\,④}\\ {\scriptstyle ⑧\,⑥\,④}\\ 8975\\ \times\ 89\\ \hline 80775\\ +\,71800\times\\ \hline 798775 \end{array}$$

Ans. 798775

(f)

$$\begin{array}{r} {\scriptstyle ④\,③\,③}\\ {\scriptstyle ⑦\,⑥\,④}\\ 3976\\ \times\ 58\\ \hline {\scriptstyle ①\,①}\\ {\scriptstyle ①}\,31808\\ +\,19880\times\\ \hline 230608 \end{array}$$

Ans. 230608

(g)

$$\begin{array}{r} 3092\\ \times\ 296\\ \hline 18552\\ 27828\times\\ +\,6184\times\times\\ \hline 915232 \end{array}$$

Ans. 915232

(h)

$$\begin{array}{r} {\scriptstyle ⑥\,⑤\,①}\\ 4872\\ \times\ 798\\ \hline 38976\\ 43848\times\\ +\,34104\times\times\\ \hline 3887856 \end{array}$$

Ans. 3887856

(i)

$$\begin{array}{r} 6972\\ \times\ 609\\ \hline 62748\\ 00000\times\\ +\,41832\times\times\\ \hline 4245948 \end{array}$$

Ans. 4245948

EXERCISE 3.5

1. Cost of one pair of football shoes = ₹ 628

Cost of 26 pairs of football shoes =

$$\begin{array}{r} {\scriptstyle ①\,④}\\ 628\\ \times\ 26\\ \hline {\scriptstyle ①}\,3768\\ +\,1256\times\\ \hline 16328 \end{array}$$

Ans. Cost of 26 pairs of shoes is ₹ 16,328.

2. Money paid by each child for trip = 550

Money paid by 128 children for trip =

$$\begin{array}{r} {\scriptstyle ④}\\ 550\\ \times\ 128\\ \hline {\scriptstyle ①}\,4400\\ 1100\times\\ +\,550\times\times\\ \hline 70400 \end{array}$$

Ans. Money paid by 128 children is ₹ 70,400

3. Man earn in one day = ₹ 346

Days in January = ₹ 31

Money earn in the month of January =

$$\begin{array}{r} {\scriptstyle ①\,①}\\ 346\\ \times\ 31\\ \hline {\scriptstyle ①}\,346\\ 1038\times\\ \hline 10726 \end{array}$$

Ans. Man earns ₹ 10,706 in January.

4. Salary of one month = ₹ 9,876

No. of months in 1 year = 12 months

Salary of 12 months =

$$\begin{array}{r} {\scriptstyle ①\,①\,①}\\ 9876\\ \times\ 12\\ \hline {\scriptstyle ①\,①}\\ 19752\\ +\,9876\times\\ \hline 118512 \end{array}$$

Ans. Annual income of Mr. Das is ₹ 1,18,512

5. Anil's father paid money for the water cooler in 50 rupees note.

No. of notes given by father to dealer = Cost of water cooler =

$$\begin{array}{r} {\scriptstyle ①\,④}\\ 139\\ \times\ 50\\ \hline 000\\ +\,695\times\\ \hline 6950 \end{array}$$

Ans. Cost of water cooler is ₹ 6950.

6. Production cost of 1 washing machinee = 5642

Production cost of 235 washin machines =

$$\begin{array}{r} {\scriptstyle ①\,③\,②\,①\,①\,①}\\ 5642\\ \times\ 235\\ \hline 28210\\ 16926\times\\ +\,11284\times\times\\ \hline 1324870 \end{array}$$

Ans. Production cost of 235 washing machines is ₹ 13,24,870.

EXERCISE 3.6

1. (a) 45×78

$45 \to 50$

$78 \to 80$

$$\begin{array}{r} 50\\ \times\ 80\\ \hline 00\\ 400\times\\ \hline 4000 \end{array}$$

(b) 82×33

$82 \to 80$

$33 \to 30$

$$\begin{array}{r} 80\\ \times\ 30\\ \hline 00\\ 240\times\\ \hline 2400 \end{array}$$

(c) 67×26

$67 \to 70$

$26 \to 30$

$70 \times 30 = 2100$

(d) 43×31

$43 \to 40$

$31 \to 30$

$40 \times 30 = 1200$

(e) 417×126

$417 \to 400$

$126 \to 100$

$400 \times 100 = 40000$

(f) 563×600

$563 \to 600$

$724 \to 700$

$600 \times 700 = 420000$

(g) 327×168

$327 \to 300$

$168 \to 200$

$300 \times 200 = 60000$

(h) 231×627

$231 \to 200$

$627 \to 600$

$200 \times 600 = 120000$

Chapter 4 Division

EXERCISE 4.1

1. (a) $79 \div 1 =$ **79**, (b) $314 \div 1 =$ **314**, (c) $7245 \div 1 =$ **7245**
(d) $0 \div 96 =$ **0**, (e) $0 \div 705 =$ **0**, (f) $0 \div 9246 =$ **0**
(g) $63 \div 63 =$ **1**, (h) $356 \div 356 =$ **1**, (i) $2460 \div 1 = 2460$

2. (a) $7272 \div 7272 =$ **1**, (b) **7188** $\div 1 = 718$
(c) $7216 \div$ **7216** $= 1$, (d) **3256** $\div 1 = 3256$
(e) **216** $\div 216 = 1$ (f) **0** $\div 721 = 0$
(g) $3985 \div$ **1** $= 3985$ (h) $1561 \div$ **1561** $= 1$

EXERCISE 4.2

1. (a)

$$\begin{array}{r} 2066 \\ 2\overline{)4132} \\ -4\downarrow \\ \hline 013 \\ -12\downarrow \\ \hline 12 \\ -12 \\ \hline 0 \end{array}$$

Divident = Divisor × Quotient + Remainder
$4132 = 2 \times 2066 + 0$
$= 4132$

(b)

$$\begin{array}{r} 1969 \\ 3\overline{)5907} \\ -3\downarrow \\ \hline 29 \\ -27\downarrow \\ \hline 20 \\ -18\downarrow \\ \hline 27 \\ -27 \\ \hline 0 \end{array}$$

Divident = Divisor × Quotient + Remainder
$5907 = 3 \times 1969 + 0$
$= 5907$

(c)

$$\begin{array}{r} 1384 \\ 6\overline{)8305} \\ -6\downarrow \\ \hline 23 \\ -18\downarrow \\ \hline 50 \\ -48\downarrow \\ \hline 25 \\ -24 \\ \hline 1 \end{array}$$

Divident = Divisor × Quotient + Remainder
$8305 = 6 \times 1384 + 1$
$= 8304 + 1$
$= 8305$

(f)

$$\begin{array}{r} 779 \\ 8\overline{)6232} \\ -65\downarrow \\ \hline 63 \\ -56\downarrow \\ \hline 72 \\ 72 \\ \hline 0 \end{array}$$

Divident = Divisor × Quotient + Remainder
$= 8 \times 779 + 0$
$= 6232$

(g)

$$\begin{array}{r} 1627 \\ 5\overline{)8135} \\ -5\downarrow \\ \hline 31 \\ -30\downarrow \\ \hline 13 \\ -10\downarrow \\ \hline 35 \\ -35 \\ \hline 0 \end{array}$$

Divident = Divisor × Quotient + Remainder
$8135 = 5 \times 1627 + 0$
$= 8135$

(h)

$$\begin{array}{r} 394 \\ 8\overline{)3152} \\ -24\downarrow \\ \hline 75 \\ -72\downarrow \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

Divident = Divisor × Quotient + Remainder
$= 8 \times 394 + 0$
$= 3152$

(i)

$$\begin{array}{r} 481 \\ 9\overline{)4335} \\ -36\downarrow \\ \hline 73 \\ -72\downarrow \\ \hline 15 \\ -9 \\ \hline 6 \end{array}$$

Divident = Divisor × Quotient + Remainder
$= 9 \times 481 + 6$
$= 4329 + 6$
$= 4335$

(j)

$$\begin{array}{r} 1284 \\ 4\overline{)5138} \\ -4\downarrow \\ \hline 11 \\ -8\downarrow \\ \hline 33 \\ -32\downarrow \\ \hline 18 \\ -16 \\ \hline 2 \end{array}$$

Divident = Divisor × Quotient + Remainder
$5138 = 4 \times 1284 + 2$
$= 5138 + 2$
$= 5138$

(k)

$$\begin{array}{r} 818 \\ 7\overline{)5732} \\ -56\downarrow \\ \hline 13 \\ -7\downarrow \\ \hline 62 \\ -56 \\ \hline 6 \end{array}$$

Divident = Divisor × Quotient + Remainder
$5732 = 7 \times 818 + 6$
$= 5726 + 6$
$= 5732$

(l)
$$\begin{array}{r} 810 \\ 5\overline{)4052} \\ -40\downarrow \\ \hline 05 \\ -5\downarrow \\ \hline 02 \\ -0 \\ \hline 2 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 5 × 810 + 2
= 4050 + 2
= 4052

EXERCISE 4.3

1. (a)
$$\begin{array}{r} 253 \\ 18\overline{)4567} \\ -36\downarrow \\ \hline 96 \\ -90\downarrow \\ \hline 67 \\ -54 \\ \hline 13 \end{array}$$

Divident = Divisor × Quotient + Remainder
4567 = 18 × 253 + 13
= 4554 + 13
= 4567

(b)
$$\begin{array}{r} 270 \\ 21\overline{)5678} \\ -42\downarrow \\ \hline 147 \\ -901\downarrow \\ \hline 08 \\ -0 \\ \hline 8 \end{array}$$

Divident = Divisor × Quotient + Remainder
5678 = 21 × 270 + 8
= 5670 + 8
= 5678

(c)
$$\begin{array}{r} 594 \\ 31\overline{)18437} \\ -155\downarrow \\ \hline 293 \\ -279\downarrow \\ \hline 147 \\ -124 \\ \hline 23 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 31 × 594 + 23
= 18414 + 23
= 18437

(d)
$$\begin{array}{r} 244 \\ 32\overline{)7836} \\ -64\downarrow \\ \hline 143 \\ -128\downarrow \\ \hline 156 \\ -128 \\ \hline 28 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 32 × 244 + 28
= 7808 + 28
= 7836

(e)
$$\begin{array}{r} 153 \\ 12\overline{)1846} \\ -12\downarrow \\ \hline 64 \\ -60\downarrow \\ \hline 46 \\ -36 \\ \hline 10 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 12 × 153 + 10
= 1836 + 10
= 1846

(f)
$$\begin{array}{r} 3106 \\ 17\overline{)52816} \\ -51\downarrow \\ \hline 18 \\ -17\downarrow \\ \hline 116 \\ -102 \\ \hline 14 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 17 × 3106 + 14
= 52,802 + 14
= 52,816

(g)
$$\begin{array}{r} 731 \\ 43\overline{)31457} \\ -301\downarrow \\ \hline 135 \\ -129\downarrow \\ \hline 67 \\ -43 \\ \hline 24 \end{array}$$

Divident = Divisor × Quotient + Remainder
31457 = 43 × 731 + 24
= 31,433 + 24
= 31457

(h)
$$\begin{array}{r} 525 \\ 16\overline{)8403} \\ -80\downarrow \\ \hline 40 \\ -32 \\ \hline 83 \\ -80 \\ \hline 3 \end{array}$$

Divident = Divisor × Quotient + Remainder
8403 = 16 × 525 + 3
= 8400 + 3
= 8403

(i)
$$\begin{array}{r} 839 \\ 37\overline{)31045} \\ -296\downarrow \\ \hline 144 \\ 111 \\ \hline 335 \\ -333 \\ \hline 2 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 37 × 839 + 2
= 31043 + 2
= 31045

(j)
$$\begin{array}{r} 6176 \\ 14\overline{)86472} \\ -84\downarrow \\ \hline 24 \\ -14\downarrow \\ \hline 107 \\ -98\downarrow \\ \hline 92\not{1}2 \\ -84 \\ \hline 8 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 14 × 6176 + 8
= 86,464 + 8
= 86,472

(k)
$$\begin{array}{r} 5192 \\ 18\overline{)93456} \\ -90\downarrow \\ \hline 2\not{3}4 \\ -18\downarrow \\ \hline 165 \\ -162\downarrow \\ \hline 36 \\ -36 \\ \hline 0 \end{array}$$

Divident = Divisor × Quotient + Remainder
= 18 × 5192 + 0
= 93,456

(l)
$$\begin{array}{r} 3924 \\ 19\overline{)74568} \\ -57\downarrow \\ \hline 175 \\ -171\downarrow \\ \hline 4\not{6}16 \\ -38\downarrow \\ \hline 88 \\ -76 \\ \hline 12 \end{array}$$

Divident = Divisor × Quotient + Remainder
74568 = 19 × 3924 + 12
= 74556 + 12
= 74,568

EXERCISE 4.4

1. (a)
$$\begin{array}{r} 96 \\ 340\overline{)32893} \\ -3060 \\ \hline 2293 \\ -2040 \\ \hline 253 \end{array}$$

Divident = Divisor × Quotient + Remainder
32893 = 96 × 340 + 253
= 32640 + 253
= 32893

(b)
```
      348
181 ) 63148
     -543
      884
     -724
      1608
      1448
       160
```
Divident = Divisor × Quotient + Remainder
= 181 × 348 + 160
= 62988 + 160
= 63148

(c)
```
      612
125 ) 76515
     -750
      151
     -125
       265
      -250
        15
```
Divident = Divisor × Quotient + Remainder
= 125 × 612 + 15
= 76500 + 15
= 76515

(d)
```
      297
145 ) 43147
     -290
      1414
     -1305
       1097
      -1015
         82
```
Divident = Divisor × Quotient + Remainder
= 145 × 297 + 82
= 43065 + 82
= 43147

(e)
```
      119
218 ) 26139
     -218
      433
     -218
       2159
      -1962
        197
```
Divident = Divisor × Quotient + Remainder
26139 = 218 × 119 + 197
= 25942 + 197
= 26139

(f)
```
      639
105 ) 67100
     -630
      410
     -315
       950
      -945
         5
```
Divident = Divisor × Quotient + Remainder
= 105 × 639 + 5
= 67095 + 5
= 67,100

(g)
```
       99
764 ) 76349
     -6876
      7589
     -6876
       713
```
Divident = Divisor × Quotient + Remainder
= 764 × 99 + 713
= 75,636 + 713
= 76,349

(h)
```
       81
469 ) 38419
     -3752
       899
      -469
        430
```
Divident = Divisor × Quotient + Remainder
= 469 × 81 + 430
= 37989 + 430
= 38419

(i)
```
      128
187 ) 23938
     -187
      523
     -374
       1498
      -1496
          2
```
Divident = Divisor × Quotient + Remainder
= 187 × 128 + 2
= 23936 + 2
= 23938

EXERCISE 4.5

(a) **952 ÷ 10** $\frac{95.2}{10}$
Quotient = 95
Remainder = 2

(b) **1347 ÷ 100** $\frac{13.47}{100}$
Quotient = 13
Remainder 47

(c) **4578 ÷ 1000** $\frac{4.578}{1000}$
Quotient = 4
Remainder = 578

(g) **789 ÷ 10** $\frac{78.9}{10}$
Quotient = 78
Remainder = 9

(d) **457 ÷ 100** $\frac{4.57}{100}$
Quotient = 4
Remainder = 57

(h) **47089 ÷ 1000** $\frac{47.089}{1000}$
Quotient = 47
Remainder = 89

(e) $\frac{304.5}{10}$
Quotient = 304
Remainder = 5

(i) $\frac{570.43}{100}$
Quotient = 570
Remainder = 43

(f) $\frac{34.789}{1000}$
Quotient = 34
Remainder = 789

EXERCISE 4.6

1. Mass of 17 boxes = 2125 kg
Mass of 1 box = 2125 ÷ 17

```
      125
17 ) 2125
     -17
      42
     -34
       85
      -85
        0
```

125 kg mass are there in 1 box.

2.
```
      225
32 ) 7200
     -64
      80
     -64
      160
      160
        0
```
32 should be muiltiplied by 225 to get 7200

3. No. of oranges packed in 16 cartons = 2304
No. of oranges packed in 1 carton =

```
      144
16 ) 2304
     -16
      70
     -64
       64
      -64
        0
```

Ans. 144 oranges should be packed in each cartons.

4. Money paid to the wholesale dealeer for T-shirts = 59057

Cost of 1 t-shirt =

No Cost of t-shirt =

$$\begin{array}{r} 89 \\ 73\overline{)59057} \\ -584\downarrow\downarrow \\ \hline 657 \\ -657 \\ \hline 0 \end{array}$$

Ans. Shopkeeper bought 89 T-shirts from the wholesale dealer.

5. Car travelle3d in 16 hours = 1152 km

Car travelled in 1 hour =

$$\begin{array}{r} 72 \\ 16\overline{)1152} \\ -112\downarrow \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

Ans. 72 km travelled by car in 1 hour.

6. Total money = ₹ 57525

No. of 5 rupee notes =

$$\begin{array}{r} 11505 \\ 5\overline{)57525} \\ -5\downarrow \\ \hline 07 \\ -5 \\ \hline 25 \\ -25 \\ \hline 025 \\ -25 \\ \hline 0 \end{array}$$

One can have 11505 notes of ₹ 5 from ₹ 57525.

7. Cost of 5 LCD sets = ₹ 61680

Cost of 1 LCD set =

$$\begin{array}{r} 12336 \\ 5\overline{)61680} \\ -5\downarrow \\ \hline 11 \\ -10\downarrow \\ \hline 16 \\ -15\downarrow \\ \hline 18 \\ -15\downarrow \\ \hline 30 \\ -30 \\ \hline 0 \end{array}$$

Ans. Cost of 1 LCD Set is ₹ 12,336

8. Total money = ₹ 28576

No. of friends = 16

Each friend get =

$$\begin{array}{r} 1786 \\ 16\overline{)28576} \\ -16\downarrow \\ \hline 125 \\ -112\downarrow \\ \hline 137 \\ -128\downarrow \\ \hline 96 \\ -96 \\ \hline 0 \end{array}$$

Ans. Each friend get ₹ 1786.

9. No. of trees in an orchard = 512 trees

No. of trees in one row = 16

No. of rows =

$$\begin{array}{r} 32 \\ 16\overline{)512} \\ -48\downarrow \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

Ans. There are 32 rows.

10. Let the number be = x

Multiplied by 26.

Product = 13312.

$x \times 26 = 13312$

$x = 13312 \div 26$

$$\begin{array}{r} 512 \\ 26\overline{)13312} \\ -130\downarrow \\ \hline 31 \\ -26\downarrow \\ \hline 52 \\ -52 \\ \hline 0 \end{array}$$

Ans. 512 is the number which is multiplied 26.

EXERCISE 4.7

1. (a) $21 \div 7 + 3$

$3 + 3$

$= 6$

(b) $16 \div 4 - 3 + 7$

$4 - 3 + 7$

$1 + 7$

$= 8$

(c) $7 \times 21 - 35 \div 7 + 7$

$7 \times 21 - 5 + 7$

$15 + 7 - 15 + 3$

$147 - 5 + 7$

$142 + 7$

$= 149$

(d) $13 - 3 + 5 \times 7$

$13 - 3 + 35$

$10 + 35$

$= 45$

(e) $19 \times 2 - 5 + 7$

$33 + 7 = 40$

(f) $39 \div 6 \times 7 - 3 + 8$

$6 \times 7 - 3 + 8$

$42 - 3 + 8$

$39 + 8$

$= 47$

(g) $15 + 49 \div 7 - 15 + 3$

$22 - 18$

$= 4$

(h) $35 - 7 \times 5 + 8$

$35 - 35 + 8$

$0 + 8$

$= 8$

(i) $3 \times 9 \div 3 - 9$

$3 \times 3 - 9$

$9 - 9$

$=0$

(j) $105 \div 7 \times 2 - 14$

$15 \times 2 - 14$

$30 - 14$

$= 16$

(k) $27 + 3 \div 3 + 12$

$27 + 1 + 12$

$= 40$

(l) $19 - 5 \times 3 + 10$

$19 - 15 + 10$

$4 + 10$

$= 14$

(m) $117 \div 9 - 5 \times 2$
$13 - 5 \times 2$
$13 - 10$
$= 3$

(n) $810 \div 30 + 3 - 20$
$27 + 3 - 20$
$= 30 - 20$
$= 10$

(o) $1331 \div 11 - 118 + 2$
$121 - 118 + 2$
$3 + 2$
$= 5$

(p) $435 + 6 - 23205 \div 105$
$435 + 6 - 221$
$441 - 221$
$= 220$

(q) $99999 \div 9 \times 5 - 55554$
$11111 \times 5 - 55554$
$55555 - 55554$
$= 1$

(r) $1003 \times 15 \div 5 + 4 \div 2$
$1003 \times 3 + 2$
$3009 + 2$
$= 3011$

2. Petrol required to cover 16 km = 1 *l*

Petrol required to cover = 1472 km =

$$\begin{array}{r} 92 \\ 16\overline{)1472} \\ -144\downarrow \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

Ans. 92 *l* petrol is required to cover 1472 km.

3. Money left with soni = ₹ 164

No. of packets of biscuits = 5

Cost of each packet of biscuit = ₹ 18

Cost of 15 packets of biscuits = 18×5

= ₹ 90

Cost of game = ₹ 246

Total money she had toaken with her

= 164 + 90 + 246

= ₹ 500

4. No. of days in February = 29

No. of minutes are there in 1 hour = 60 minute

No. of minutes are there in 1 day =

24×60

= 1440 minutes

No. of minutes are there in 29 days

29×1440

= 41,760 minutes

Chapter 5 Roman Numerals

EXERCISE 5

1. (a) 59 – LIX, (b) 48 – XLVIII, (c) 57 – LVII, (d) 89 – LXXXIX
(e) 24 – XXIV, (f) 30 – XXX, (g) 90 – XC, (h) 9 – IX, (i)35 – XXXV
(j) 100 – C, (k) 72 – LXXII, (l) 76 – LXXVI, (m) 43 – XLIII,
(n) 64 – LXIV, (o) 94 – XCIV, (p) 52 – LII

2. **XXV** – 25, **LXI** – 61, **IX** – 9, **XX** – 20, **L** – 50, **C** – 100, **XIV** – 14, **XXX** – 30, **XV** – 15, **XL** – 40, **XC** – 90

3. (a) XXXVI = 30 + **5** + 1, (b) XXIV = **20** + (5 – 1)
(c) LXXXV = 50 + **30** + 5, (d) LIX = **50** + (10 – 1)
(e) XVIII = 10 + **5** + 2, (f) XC = **100** – 10

4.

Column A		Column B	
20	XX	XC	90
40	XL	XIX	19
90	XC	XX	20
19	XIX	XL	40

Chapter 6 Multiples and Factors

EXERECISE 6.1

1. **Mulples of 3** → 3, 6, 9, 12, 15, 18, 21, 24, 27, 30
Mulples of 5 → 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
Common Mulples → 15, 30

2. (a) 5 and 6
Mulples of 5 → 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90
Mulples of 6 → 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90
Common multiples of 5 and 6 – 30, 60, 90

5	5, 6
6	1, 6
	1, 1

LCM = 5×6
= 30

(b) 9 and 12
Mulples of 9 → 9, 18, 27, **36**, 45, 54, 63, **72**, 90, 99, **108**
Mulples of 12 → 12, 24, **36**, 48, 60, **72**, 84, 96, **108**, 120
Common multiples of 9 and 12 — 36, 72, 108
L.C.M of 9 and 12

3	9, 12
3	3, 4
4	1, 4
	1, 1

L.C.M. = $3 \times 3 \times 4$
= 36

(c) 2 and 5
Mulples of 2 → 2, 4, 6, 8, **10**, 12, 14, 16, 18, **20**, 22, 24, 26, 28, **30**
Mulples of 5 → 5, **10**, 15, **20**, 25, **30**, 35, 40
Common multiples of 2 and 5 — 10, 20, 30
L.C.M. of 2 and 5

2	2, 5
5	1, 5
	1, 1

L.C.M. = $2 \times 5 = 10$

(d) 3 and 4
Mulples of 3 → 3, 6, 9, **12**, 15, 18, 21, **24**, 27, 30, 33, **36**
Mulples of 4 → 4, 8, **12**, 16, 20, **24**, 28, 32, **36**, 40
Common multiples of 3 and 4 — 12, 24 and 36
L.C.M. of 3 and 4

3	3, 4
4	1, 4
	1, 1

L.C.M. = $3 \times 4 = 12$

(e) 4 and 16
Mulples of 4 → 4, 8, **12**, 16, 20, **24**, 28, 32, **36**, 40, 44, 48, 52, 56, 60
Mulples of 16 → 6, **12**, 18, 24, 30, **36**, 42, 48, 54, 60
Common multiples of 3 and 4 — 12, 24 and 36
L.C.M. of 4 and 16

2	4, 6
2	2, 3
3	1, 3
	1, 1

L.C.M. = $2 \times 2 \times 3 = 12$

(f) 5 and 10

Mulples of 5 → 5, **10**, 15, **20**, 25, **30**

Mulples of 10 → **10**, **20**, **30**, 40, 50

Common multiples of 5 and 10 — 10, 20 and 30

L.C.M. of 5 and 10

2	5, 10
5	5, 5
	1, 1

L.C.M. = 3 × 4 = 12

EXERCISER 6.3

1. (a) 25 – 1, 5, 25

(b) 28 – 1, 2, 4, 14, 28

(c) 30 – 1, 2, 3, 5, 6, 10, 15, 30

(d) 48 – 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

(e) 45 – 1, 3, 5, 9, 15, 45

(f) 23 – 1, 23

(g) 50 – 1, 2, 5, 10, 25, 50

(h) 20 – 1, 2, 4, 5, 10, 20

(i) 120 – 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30, 40, 60, 120

(j) 150 – 1, 2, 3, 5, 6, 10, 15, 25, 30, 50, 75, 150

(k) 200 – 1, 2, 4, 5, 8, 10, 20, 25, 40, 50, 100, 200

(l) 300 – 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 25, 30, 50, 60, 75, 100, 150, 300

2. (a) Factors of 9 → 1, **3**, 9

Factors of 12 → 1, 2, **3**, 4, 6, 12

→ Common factor – 3

→ Highest common factor – 3

(b) Factors of 8 → 1, **2**, 4, 8

Factors of 10 → 1, **2**, 5, 10

→ Common factor – 2

→ Highest common factor – 3

(c) Factors of 15 → 1, 3, **5**, 15

Factors of 25 → 1, **5**, 25

→ Common factor – 5

→ Highest common factor – 5

(d) Factors of 18 → 1, **2**, 3, 6, 9, 18

Factors of 24 → 1, 2, 3, 4, 6, 8, 12, 24

→ Common factor – 1, 2, 3, 6

→ Highest common factor – 6

3. (a) No, (b) Yes, (c) No, (d) Yes

4. (a) 6 × 5 = 30, 6 and 5 are **factors** of 30.

(b) 7 × 3 = 21, **7** and **3** are factors of **21**

(c) **1**, 2, **5** and **10** are factors of 10.

(d) **1** is a factor of every number.

(e) The greatest factor of a number is the **number itself**.

5. (a) 4, 5

Factors of 4 = **1**, 2, 4

Factors of 5 = **1**, 5

Common factors = 1

(b) 10, 14

Factors of 4 = 1, 2, 5, 10

Factors of 5 = 1, 2, 7, 14

Common factors = 1 and 2

EXERCISE 6.4

1. (a) 587**6** → 6 is at ones place.

So 5876 is divisible by 2.

(b) 879**4** → 4 is at ones place.

So 8794 is divisible by 2.

(c) 207**5** → 5 is at ones place.

So 2075 is divisible by 2.

(d) 854**9** → 9 is at ones place.

So 8794 is divisible by 2.

Ans. (a), (b)

2. (a) 7080

Sum of digits = 7 + 1 + 8 = 16

16 is not divisible by 3.

So 7180 is also not divisible by 3.

(b) 6783

Sum of digits = 6 + 7 + 8 + 3 = 24

24 is not divisible by 3.

So 6783 is also not divisible by 3.

(c) 78462

Sum of digits = 7 + 8 + 4 + 6 + 2 = 27

27 is not divisible by 3.

So 6783 is also not divisible by 3.

(d) 20805

Sum of digits = 2 + 0 + 8 + 0 + 5 = 15

15 is not divisible by 3.

So 20805 is also not divisible by 3.

3. (a) 2965 → 5 is at ones place.

So it is divisible by 5 but not 10.

(b) 2420 → 0 is at ones place.

So 2420 is divisible by both 5 and 10.

(c) 3865 → 5 is at ones place.

So 3865 is divisible by 5 but not 10.

(d) 72895 → 5 is at ones place.

So 72895 is divisible by 5 but not 10.

4.

	By 2	**By 3**	**By 5**	**By 9**	**By 10**
(a) 6480	✓	✓	✓	✓	✓
(b) 5895	✗	✓	✓	✓	✓
(c) 4974	✓	✓	✗	✗	✗
(d) 3090	✓	✓	✓	✗	✓
(e) 76350	✗	✓	✓	✗	✓

EXERCISE 6.5

1. (a) The smallest composite number is **4**.

(b) The smallest prime number is **2**.

(c) The greatest prime number less than 40 is **37**.

(d) The smallest prime number greater than 20 is **23**.

(e) There are altogether **25** prime numbers between 1 and 100.

2. (a) 7, 17, 47, 67, 97 (b) 19, 29, 59, 79, 89

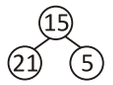
3. (a) 21, 51, 81, 91 (b) 33, 63, 93

4. (c) 17, 19, (e) 11, 13

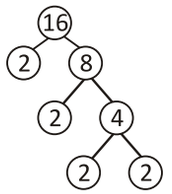
EXERCISE 6.6

1. (a) (ii) 3 × 3, (b) (iii) 3 × 15, (c) (i) 3 × 15,
(d) (iii) 2 × 2 × 2 × 2 × 2 × 2, (e) (ii) Composite Number,
(f) (ii) A number is factorised as prime numbers only.

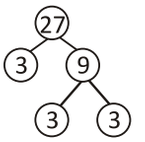
2. (a)



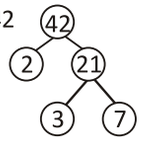
(b) 16



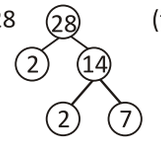
(c) 27



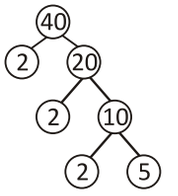
(d) 42



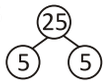
(e) 28



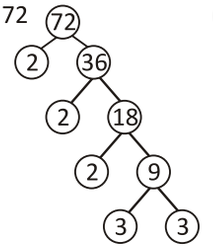
(f)



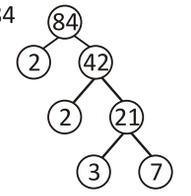
(g) 25



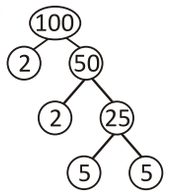
(h) 72



(i) 84



(j) 100



2. (a) 24

2	24
2	12
2	6
3	3
	1

Prime factorisation of 24 is 2 × 2 × 2 × 3.

(b) 36

2	36
2	18
3	9
3	3
	1

Prime factorisation of 36 is 2 × 2 × 3 × 3.

(c) 45

3	45
3	15
5	5
	1

Prime factorisation of 36 is 3 × 3 × 5.

(d) 80

2	80
2	40
2	20
2	10
5	5
	1

Prime factorisation of 80 is 2 × 2 × 2 × 2 × 5

(e) 100

2	100
2	50
5	25
5	2
	1

Prime factorisation of 100 is 2 × 2 × 5 × 5

(f) 72

2	72
2	36
2	18
3	9
3	3
	1

Prime factorisation of 72 is 2 × 2 × 2 × 3 × 3.

(g) 96

2	96
2	48
2	24
2	12
2	6
3	3
	1

Prime factorisation of 96 is 2 × 2 × 2 × 2 × 2 × 3

(h) 50

2	50
5	25
5	5
	1

Prime factorisation of 50 is 2 × 5 × 5.

(i) 75

3	75
5	25
5	5
	1

Prime factorisation of 75 is 3 × 5 × 5.

(j) 200

2	200
2	100
2	50
5	25
5	5
	1

Prime factorisation of 200 is 2 × 2 × 2 × 5 × 5.

Chapter **7**

Fractions

EXERCISE 7.1

1. (a) $\frac{7}{8}$ of 16 = $\frac{7}{\cancel{8}} \times \overset{2}{\cancel{16}} = 14$

(b) $\frac{3}{7}$ of 49 = $\frac{3}{\cancel{7}} \times \overset{7}{\cancel{49}} = 21$

(c) $\frac{5}{6}$ of 60 = $\frac{5}{\cancel{6}} \times \overset{10}{\cancel{60}} = 50$

(d) $\frac{8}{11}$ of 33 = $\frac{8}{\cancel{11}} \times \overset{3}{\cancel{33}} = 24$

2. One half, $\frac{2}{5}$, $\frac{1}{3}$, $\frac{2}{4}$, $\frac{4}{15}$

3. (a) Total biscuits = 12

Anita eat $= \frac{3}{4}$ of 12

$= \frac{3}{\cancel{4}} \times \overset{3}{\cancel{12}} = 9$ biscuits

Anita eate 9 biscuits.

(12 – 9) = 3 biscuits are left.

(b) 1 hour = 60 minuts

$= \frac{3}{4}$ of 60

$= \frac{3}{\cancel{4}} \times \overset{15}{\cancel{60}} = 45$ biscuits

4.

(a)	$\frac{4}{10}$	4 out of 10 equal parts	fourth-tenths
(b)	$\frac{1}{4}$	1 out of 4 equal parts	quarter
(c)	$\frac{2}{3}$	2 ouf of 3 equal parts	two-thirds
(d)	$\frac{3}{8}$	3 out of 8 equal parts	three-fourths
(e)	$\frac{3}{4}$	3 out of 4 equal parts	threee-eights
(f)	$\frac{1}{3}$	1 out of 3 qual parts	one-thirds

EXERCISE 7.2

1. (a) $\frac{1}{2} \rightarrow \mathbf{\frac{2}{4}}$ $\frac{5}{8}$ $\mathbf{\frac{6}{12}}$ $\frac{9}{10}$ $\mathbf{\frac{3}{6}}$, (b) $\frac{2}{3} \rightarrow \mathbf{\frac{4}{6}}$ $\frac{7}{13}$ $\mathbf{\frac{8}{12}}$ $\frac{10}{12}$ $\mathbf{\frac{10}{15}}$

(c) $\frac{1}{4} \rightarrow \mathbf{\frac{2}{8}}$ $\frac{2}{3}$ $\mathbf{\frac{3}{12}}$ $\mathbf{\frac{5}{20}}$ $\frac{3}{8}$, (d) $\frac{3}{5} \rightarrow \frac{1}{5}$ $\frac{3}{7}$ $\mathbf{\frac{6}{10}}$ $\frac{3}{10}$ $\mathbf{\frac{12}{20}}$

2. (a) $\frac{1}{2}$ $\mathbf{\frac{2}{4}}$ $\mathbf{\frac{3}{6}}$ $\mathbf{\frac{4}{8}}$ $\mathbf{\frac{5}{10}}$ $\mathbf{\frac{6}{12}}$, (b) $\frac{3}{4}$ $\mathbf{\frac{6}{8}}$ $\mathbf{\frac{9}{12}}$ $\mathbf{\frac{12}{16}}$ $\mathbf{\frac{15}{20}}$ $\mathbf{\frac{18}{24}}$

(c) $\frac{5}{7}$ $\mathbf{\frac{10}{14}}$ $\mathbf{\frac{15}{21}}$ $\mathbf{\frac{20}{28}}$ $\mathbf{\frac{25}{35}}$ $\mathbf{\frac{30}{42}}$, (d) $\frac{4}{5}$ $\mathbf{\frac{8}{10}}$ $\mathbf{\frac{12}{15}}$ $\mathbf{\frac{20}{25}}$ $\mathbf{\frac{24}{30}}$ $\mathbf{\frac{28}{35}}$

3. (a) $\frac{5}{10} = \frac{5 \div 5}{10 \div 5} = \mathbf{\frac{1}{2}}$ **Ans**, (b) $\frac{9}{12} = \frac{9 \div 3}{12 \div 3} = \mathbf{\frac{3}{4}}$ **Ans.**

(c) $\frac{5 \div 5}{20 \div 5} = \frac{1}{4}$ **Ans.**, (d) $\frac{24 \div 6}{30 \div 6} = \mathbf{\frac{4}{5}}$ **Ans.**

(e) $\frac{15 \div 3}{30 \div 3} = \frac{5}{10} = \frac{5}{10} \div \frac{5}{5} = \mathbf{\frac{1}{2}}$ **Ans.** (f) $\frac{14}{37} = \mathbf{\frac{14}{37}}$ **Ans.**

(g) $\frac{22 \div 11}{44 \div 11} = \mathbf{\frac{2}{4}}$ **Ans.** (h) $\frac{35 \div 7}{70 \div 7} = \frac{5}{10} = \frac{5 \div 5}{10 \div 5} = \mathbf{\frac{1}{2}}$ **Ans.**

(i) $\frac{42 \div 7}{49 \div 7} = \mathbf{\frac{6}{7}}$ **Ans.** (j) $\frac{21 \div 7}{42 \div 7} = \frac{3}{6} = \frac{3 \div 3}{6 \div 3} = \mathbf{\frac{1}{2}}$ **Ans.**

4. (a) (i) $\frac{12 \div 2}{18 \div 2} = \frac{6}{9} = \frac{6 \div 3}{9 \div 3} = \mathbf{\frac{2}{3}}$,

(ii) $\frac{12}{18}$ $\frac{6}{6} = \mathbf{\frac{2}{3}}$ **Ans.** $\frac{2}{3}$ [H.C.F. = 6]

(b) $\frac{9 \div 3}{12 \div 3} = \frac{3}{4}$ **Ans.** $\frac{3}{4}$ [H.C.F. = 3]

(c) $\frac{10 \div 2}{14 \div 2} = \frac{5}{7}$ **Ans.** $\frac{5}{7}$ [H.C.F. = 2]

(d) $\frac{15 \div 5}{20 \div 2} = \frac{3}{4}$ **Ans.** $\frac{3}{4}$ [H.C.F. = 5]

(e) (i) $\frac{16 \div 2}{20 \div 2} = \frac{8}{10}$ $= \frac{8 \div 2}{10 \div 2} = \frac{4}{5}$,

(ii) $\frac{16 \div 4}{20 \div 4} = \frac{4}{5}$ **Ans.** $\frac{4}{5}$ [H.C.F. = 4]

(f) $\frac{10 \div 2}{22 \div 2} = \frac{5}{11}$ **Ans.** $\frac{5}{11}$ [H.C.F. = 2]

(g) $\frac{10 \div 2}{12 \div 2} = \frac{5}{6}$ **Ans.** $\frac{5}{6}$ [H.C.F. = 2]

(h) (i) $\frac{18 \div 2}{30 \div 2} = \frac{9}{15}$ $\frac{9 \div 3}{15 \div 3} = \frac{3}{5}$

(ii) $\frac{18 \div 6}{30 \div 6} = \frac{3}{5}$ **Ans.** $\frac{3}{5}$ [H.C.F. = $\frac{3}{5}$]

(i) (i) $\frac{45 \div 3}{90 \div 3} = \frac{15}{30}$ $\frac{15 \div 3}{30 \div 3} = \frac{5}{10}$ $\frac{5 \div 5}{10 \div 5} = \frac{1}{2}$

(ii) $\frac{45 \div 45}{90 \div 45} = \frac{1}{2}$ **Ans.** $\frac{1}{2}$ [H.C.F. = 45]

(j) (i) $\frac{42 \div 2}{72 \div 2} = \frac{21}{36} = \frac{21 \div 3}{36 \div 3} = \frac{7}{12}$

(ii) $\frac{42 \div 6}{72 \div 6} = \frac{7}{12}$ **Ans.** $\frac{7}{12}$ [H.C.F. = 6]

EXERCISE 7.4

1. ✗ ✓ ✗

2. (a) $\frac{1}{3}$ andd $\frac{1}{6}$

$\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$

$\frac{1}{6} \times \frac{1}{1} = \frac{1}{6}$ L.C.M = 2 × 3 = 6

2	3, 6
3	3, 3
	1, 1

Ans. $\frac{2}{6}$ and $\frac{1}{6}$ are like fractions.

(b) $\frac{3}{4}$ and $\frac{1}{8}$

$\frac{3}{4} \times \frac{2}{2} = \frac{6}{8}$

$\frac{1}{8} \times \frac{1}{1} = \frac{1}{8}$ L.C.M = 2 × 2 × 2 = 8

2	4, 8
2	2, 4
2	1, 2
	1, 1

Ans. $\frac{6}{8}$ and $\frac{1}{8}$ are like fractions.

(c) $\frac{7}{10}$ and $\frac{2}{5}$

$\frac{7}{10}\times\frac{1}{1}=\frac{7}{10}$

$\frac{2}{5}\times\frac{2}{2}=\frac{4}{10}$

2	10, 5
5	5, 5
	1, 1

L.C.M = 2 × 5 = 10

Ans. $\frac{7}{10}$ and $\frac{4}{10}$ are like fractions.

(d) $\frac{5}{12}$ and $\frac{7}{6}$

$\frac{5}{12}\times\frac{1}{1}=\frac{5}{12}$

$\frac{7}{6}\times\frac{2}{2}=\frac{14}{12}$

2	12, 6
2	6, 3
3	3, 1
	1, 1

L.C.M = 2 × 2 × 3 = 12

Ans. $\frac{5}{12}$ and $\frac{14}{12}$ are like fractions.

(e) $\frac{1}{2}$ and $\frac{7}{8}$

$\frac{1}{2}\times\frac{4}{4}=\frac{4}{8}$

$\frac{7}{8}\times\frac{1}{1}=\frac{7}{8}$

2	12, 6
2	6, 3
3	3, 1
	1, 1

L.C.M = 2 × 4 = 8

Ans. $\frac{4}{8}$ and $\frac{7}{8}$ are like fractions.

(f) $\frac{4}{7}$ and $\frac{6}{14}$

$\frac{4}{7}\times\frac{2}{2}=\frac{8}{14}$

$\frac{6}{14}\times\frac{1}{1}=\frac{6}{14}$

2	7, 14
7	7, 7
	1, 1

L.C.M = 2 × 7 = 14

Ans. $\frac{8}{14}$ and $\frac{6}{14}$ are like fractions.

3. (a) $\frac{2}{3}$ and $\frac{3}{4}$

$\frac{2}{3}\times\frac{4}{4}=\frac{8}{12}$

$\frac{3}{4}\times\frac{3}{3}=\frac{9}{12}$

2	3, 4
2	3, 2
3	3, 1
	1, 1

L.C.M = 2 × 2 × 3 = 12

Ans. $\frac{8}{12}$ and $\frac{9}{12}$ are like fractions.

(b) $\frac{7}{9}$ and $\frac{3}{12}$

$\frac{7}{9}\times\frac{4}{4}=\frac{28}{36}$

$\frac{3}{12}\times\frac{3}{3}=\frac{9}{36}$

2	9, 12
2	9, 6
2	9, 3
3	3, 1
	1, 1

L.C.M = 2 × 2 × 3 × 3 = 36

Ans. $\frac{28}{36}$ and $\frac{9}{36}$ are like fractions.

(c) $\frac{3}{10}$ and $\frac{9}{15}$

$\frac{3}{10}\times\frac{3}{3}=\frac{9}{30}$

$\frac{9}{15}\times\frac{2}{2}=\frac{18}{30}$

2	10, 15
3	5, 15
5	5, 5
	1, 1

L.C.M = 2 × 3 × 5 = 30

Ans. $\frac{9}{30}$ and $\frac{18}{30}$ are like fractions.

(d) $\frac{5}{6}$ and $\frac{3}{8}$

$\frac{5}{6}\times\frac{4}{4}=\frac{20}{24}$

$\frac{3}{8}\times\frac{3}{3}=\frac{9}{24}$

2	6, 8
2	3, 4
2	3, 2
3	3, 1
	1, 1

L.C.M = 2 × 2 × 2 × 3 = 24

Ans. $\frac{20}{24}$ and $\frac{9}{24}$ are like fractions.

(e) $\frac{1}{3}$ and $\frac{1}{7}$

$\frac{1}{3}\times\frac{7}{7}=\frac{7}{21}$

$\frac{1}{7}\times\frac{3}{3}=\frac{3}{21}$

3	3, 7
7	1, 7
	1, 1

L.C.M = 3 × 3 = 21

Ans. $\frac{7}{21}$ and $\frac{3}{21}$ are like fractions.

(f) $\frac{5}{8}$ and $\frac{1}{5}$

$\frac{5}{8}\times\frac{5}{5}=\frac{25}{40}$

$\frac{1}{5}\times\frac{8}{8}=\frac{8}{40}$

2	8, 5
2	4, 5
2	2, 5
5	1, 5
	1, 1

L.C.M = 2 × 2 × 2 × 5 = 40

Ans. $\frac{25}{40}$ and $\frac{8}{40}$ are like fractions.

EXERCISE 7.5

1. $\frac{1}{4}$, $\frac{4}{9}$, $\frac{2}{7}$, $\frac{9}{10}$, **2.** $\frac{3}{2}$, $\frac{4}{4}$, $\frac{12}{7}$, $\frac{9}{5}$

3. $\frac{1}{5}$, $\frac{1}{7}$, $\frac{1}{20}$ **4.** $1\frac{3}{5}$, $6\frac{3}{8}$, $1\frac{7}{8}$

5. (a) $\frac{15}{7}=2\frac{1}{7}$, (b) $\frac{26}{3}=8\frac{2}{3}$, (c) $\frac{18}{5}=3\frac{3}{5}$, (d) $\frac{35}{6}=5\frac{5}{6}$

(e) $\frac{52}{9}=5\frac{7}{9}$, (f) $\frac{17}{4}=4\frac{1}{4}$, (g) $\frac{41}{8}=5\frac{1}{8}$, (h) $\frac{73}{9}=8\frac{1}{9}$

6. (a) $3\frac{7}{9}=9\times3+7$

$=27+7$

$=34$

(b) $10\frac{4}{7}=7\times10+4$

$=70+4$

$=74$

(c) $12\frac{1}{8}=8\times12+1$

$=96+1$

$=97$

(d) $5\frac{9}{11}=11\times5+9$

$=55+9$

$=64$

(e) $7\frac{3}{10} = 10 \times 7 + 3$
$= 70 + 3$
$= 73$

(f) $11\frac{1}{9} = 9 \times 11 + 1$
$= 99 + 1$
$= 100$

(g) $8\frac{5}{12} = 12 \times 8 + 5$
$= 96 + 5$
$= 101$

(h) $1\frac{9}{10} = 10 \times 1 + 9$
$= 10 + 9$
$= 19$

EXERCISE 7.6

1. (a) $\frac{4}{9} < \frac{7}{9}$, (b) $\frac{15}{17} > \frac{13}{17}$, (c) $\frac{9}{11}\ \frac{9}{13}$, (d) $\frac{17}{3} > \frac{17}{5}$, (e) $\frac{19}{50} > \frac{18}{50}$

(f) $\frac{5}{9} < \frac{5}{6}$, (g) $\frac{3}{7} < \frac{9}{11}$, (h) $\frac{4}{5} = \frac{8}{10}$, (i) $\frac{5}{6} > \frac{4}{7}$. (j) $\frac{1}{3} = \frac{3}{9}$, (k) $\frac{2}{8} = \frac{3}{12}$

2. (a) $\frac{3}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}$, (b) $\frac{7}{13}, \frac{7}{11}, \frac{7}{9}, \frac{7}{8}$, (c) $\frac{2}{9}, \frac{2}{7}, \frac{2}{5}, \frac{2}{3}$

3. (a) $\frac{4}{5}, \frac{4}{6}, \frac{4}{7}, \frac{4}{9}$, (b) $\frac{6}{7}, \frac{4}{7}, \frac{2}{7}, \frac{1}{7}$, (c) $\frac{8}{5}, \frac{6}{5}, \frac{3}{5}, \frac{1}{5}$, (d) $\frac{11}{5}, \frac{7}{8}, \frac{4}{9}, \frac{1}{9}$

EXERCISE 7.7

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

(b) $\frac{8}{9} + \frac{4}{9} = \frac{8+4}{9} = \frac{12}{9}$,

(c) $\frac{3}{5} + \frac{4}{5} = \frac{3+4}{5} = \frac{7}{5}$,

(d) $\frac{7}{10} + \frac{5}{10} = \frac{7+5}{10} = \frac{12}{10}$,

(e) $\frac{3}{14} + \frac{7}{14} = \frac{3+7}{14} = \frac{10}{14}$,

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

(g) $\frac{5}{10} + \frac{2}{10} = \frac{5+2}{10} = \frac{7}{10}$

2. (a) $\frac{3}{5} + \frac{1}{6}$

$\frac{3}{5} \times \frac{6}{6} = \frac{18}{30}$

$\frac{1}{6} \times \frac{5}{5} = \frac{5}{30}$

L.C.M. = 2 × 3 × 5 = 30

2	5, 6
3	5, 3
5	5, 1
	1, 1

$\therefore \frac{18}{30} + \frac{5}{30} = \frac{18+5}{30} = \frac{23}{30}$ **Ans.**

(b) $\frac{2}{3} + \frac{9}{10}$

$\frac{2}{3} \times \frac{10}{10} = \frac{20}{30}$

$\frac{9}{10} \times \frac{3}{3} = \frac{27}{30}$

L.C.M. = 2 × 3 × 5 = 30

2	3, 10
3	3, 5
5	1, 5
	1, 1

$\therefore \frac{20}{30} + \frac{27}{30} = \frac{20+27}{30} = \frac{47}{30}$ **Ans.**

(c) $\frac{1}{4} + \frac{7}{10}$

$\frac{1}{4} \times \frac{5}{5} = \frac{5}{20}$

$\frac{7}{10} \times \frac{2}{5} = \frac{14}{20}$

L.C.M. = 2 × 2 × 5 = 20

2	4, 10
2	2, 5
5	1, 5
	1, 1

$\therefore \frac{5}{20} + \frac{14}{20} = \frac{5+14}{20} = \frac{19}{20}$ **Ans.**

(d) $1\frac{3}{4} + 2\frac{1}{5}$

$\frac{7}{4} + \frac{11}{5}$

$\frac{7}{4} \times \frac{5}{5} = \frac{35}{20}$

$\frac{11}{5} \times \frac{4}{4} = \frac{44}{20}$

L.C.M. = 2 × 2 × 5 = 20

2	4, 5
2	2, 5
5	1, 5
	1, 1

$\therefore \frac{35}{20} + \frac{44}{20} = \frac{35+44}{20} = \frac{79}{20}$ **Ans.**

(e) $2\frac{1}{2} + 1\frac{1}{8}$

$\frac{5}{2} + \frac{9}{8}$

$\frac{5}{2} \times \frac{4}{4} = \frac{20}{8}$

$\frac{9}{8} \times \frac{1}{1} = \frac{9}{8}$

L.C.M. = 2 × 2 × 2 = 8

2	2, 8
2	1, 4
2	1, 2
	1, 1

$\therefore \frac{20}{8} + \frac{9}{8} = \frac{20+9}{8} = \frac{29}{8}$ **Ans.**

(f) $1\frac{1}{5} + \frac{7}{10}$

$\frac{6}{5} + \frac{7}{10}$

$\frac{12+7}{10}$

L.C.M. = 2 × 5 = 10

2	5, 10
5	5, 5
	1, 1

$= \frac{19}{10}$ **Ans.**

(g) $4\frac{1}{2} + 1\frac{3}{4}$

$\frac{9}{2} + \frac{7}{4}$

$\frac{9}{2} \times \frac{2}{2} = \frac{18}{4}$

$\frac{7}{4} \times \frac{1}{1} = \frac{7}{4}$

L.C.M. = 2 × 2 = 4

2	2, 4
2	1, 2
	1, 1

$\therefore \frac{18}{4} + \frac{7}{4} = \frac{25}{4}$ **Ans.**

(h) $4 + 3\frac{1}{2} + 1\frac{1}{4}$

$\frac{4}{1} + \frac{7}{2} + \frac{5}{4}$

$\frac{4}{1} \times \frac{4}{4} = \frac{16}{4}$

$\frac{7}{2} \times \frac{2}{2} = \frac{14}{4}$

$\frac{5}{4} \times \frac{1}{1} = \frac{5}{4}$

$\therefore \frac{16}{4} + \frac{14}{4} + \frac{5}{4} = \frac{16+14+5}{4} = \frac{35}{4}$ Ans.

3. (a) Quantity of Sugar $= 2\frac{1}{2}$ kg

Quantity of rice = $5\frac{1}{4}$ kg

Total weight = $2\frac{1}{1}$ kg + $5\frac{1}{4}$ kg

$\frac{5}{2}$ kg + $\frac{21}{4}$ kg

$\frac{10+21}{4}$ kg

$= \frac{31}{4}$ kg

$= 7\frac{3}{4}$ kg **Ans.**

2	2, 4
2	1, 2
	1, 1

L.C.M. = 4

(b) Height of Rakhi = $1\frac{2}{5}$ m

Height of Leena = $1\frac{1}{10}$ m

Sum of their Heights = $1\frac{2}{5} + 1\frac{1}{10}$

$\frac{6}{5} \times 2 + \frac{11}{10}$

$\frac{12+11}{10}$

$= \frac{23}{10}$

$= 2\frac{3}{10}$ m **Ans.**

2	5, 10
5	5, 5
	1, 1

L.C.M. = 10

(c) Quantity of milk = $10\frac{1}{2}$ *l*

Quantity of water added = $1\frac{1}{7}$ *l*

Total amount of milk = $10\frac{1}{2}l + 1\frac{1}{7}l$

$= \frac{21}{2} \times 7 + \frac{8}{7}$

$\frac{147+16}{14}$

$= \frac{163}{14}$

$= 11\frac{9}{14}$ **Ans.**

2	2, 7
7	1, 7
	1, 1

L.C.M. = 14

(d) Mother needed rope first = $10\frac{1}{2}$ m

More rope needed by mother = $5\frac{1}{3}$ m

Total length of rope = $10\frac{1}{2}$ m + $5\frac{1}{3}$ m

$\frac{21}{2} \times 3$ m + $\frac{16}{3} \times 2$ m

$\frac{63+32}{6}$ m

$= \frac{95}{6}$ m

$= 15\frac{5}{6}$ m **Ans.**

EXERCISE 7.8

1. (a) $\frac{5}{9} - \frac{1}{9} = \frac{5-1}{9} = \frac{4}{9}$

(b) $\frac{11}{14} - \frac{8}{14} = \frac{11-8}{14} = \frac{3}{14}$

(c) $\frac{17}{18} - \frac{4}{18} = \frac{17-4}{18} = \frac{13}{18}$

(d) $\frac{19}{22} - \frac{6}{22} = \frac{19-6}{22} = \frac{13}{22}$

(e) $\frac{13}{15} - \frac{4}{15} = \frac{13-4}{15} = \frac{9}{15}$

(f) $\frac{23}{27} - \frac{6}{27} = \frac{23-6}{27} = \frac{17}{27}$

(g) $\frac{31}{40} - \frac{8}{40} = \frac{31-8}{40} = \frac{23}{40}$

(h) $\frac{3}{15} - \frac{1}{15} = \frac{3-1}{15} = \frac{2}{15}$

2. (a) $\frac{5}{8} \times 1 - \frac{1}{2} \times 4$

$= \frac{5-4}{8}$

$= \frac{1}{8}$ **Ans.**

2	4, 12
2	2, 6
3	1, 3
	1, 1

L.C.M. = 2 × 2 × 3 = 12

(b) $\frac{4}{5} \times 2 - \frac{7}{10} \times 1$

$\frac{8-7}{10}$

$= \frac{1}{10}$ **Ans.**

2	5, 10
5	5, 5
	1, 1

L.C.M. = 2 × 5 = 10

(c) $\frac{4}{7} - \frac{3}{14}$

$\frac{4 \times 2 - 3 \times 1}{14}$

$= \frac{8-3}{14} = \frac{5}{14}$ **Ans.**

2	7, 14
7	7, 7
	1, 1

L.C.M. = 14

(d) $\frac{1}{2} - \frac{3}{16}$

$\frac{1 \times 8 - 3 \times 1}{16}$

$\frac{8-3}{16} = \frac{5}{16}$ **Ans.**

2	2, 16
2	1, 8
4	1, 4
	1, 1

L.C.M. = 2 × 2 × 4 = 16

(e) $\frac{3}{4} - \frac{1}{12}$

$\frac{3 \times 3 - 1 \times 1}{12}$

$\frac{9-1}{12} = \frac{2}{3}$ **Ans.**

2	4, 12
2	2, 6
3	1, 3
	1, 1

L.C.M. = 2 × 2 × 3 = 12

(f) $\frac{9}{14} \times 3 - \frac{5}{21} \times 2$

$\frac{27-10}{42}$

$= \frac{17}{42}$ **Ans.**

2	14, 21
7	7, 21
3	1, 3
	1, 1

L.C.M. = 2 × 7 × 3 = 42

(g) $\frac{7}{10}-\frac{1}{2}\times 5$

$\frac{7-5}{10}$

$=\frac{1}{5}$ **Ans.**

(h) $\frac{4}{5}-\frac{9}{15}$

$\frac{4\times 3-9\times 1}{15}$

$=\frac{12-9}{15}=\frac{1}{5}$ **Ans.**

3. (a) $3\frac{1}{5}-2\frac{3}{10}$

$=\frac{16}{5}-\frac{23}{10}$

$=\frac{16\times 2-23\times 1}{10}$

$=\frac{32-23}{10}$

$=\frac{9}{10}$ **Ans.**

(b) $1\frac{3}{4}-\frac{7}{12}$

$=\frac{7}{4}-\frac{7}{12}$

$=\frac{7\times 3-7}{12}$

$=\frac{21-7}{12}$

$=\frac{7}{6}$ **Ans.**

(c) $2\frac{5}{6}-1\frac{1}{3}$

$\frac{17}{6}\times 1-\frac{4}{3}\times 2$

$\frac{17-8}{6}$

$=\frac{9}{6}=\frac{3}{2}$ **Ans.**

(d) $\frac{2}{1}\times 2-\frac{1}{2}\times 1$

$\frac{4-1}{2}$

$=\frac{3}{2}$ **Ans.**

(f) $8\frac{4}{5}-2\frac{1}{15}$

$\frac{44}{5}\times 3-\frac{31}{15}\times 1$

$=\frac{132-31}{15}=\frac{101}{15}=6\frac{11}{15}$ **Ans.**

2	10, 2
5	5, 1
	1, 1

L.C.M. = 2 × 5 = 10

3	5, 15
5	5, 5
	1, 1

L.C.M. = 3 × 5 = 15

4	4, 12
3	1, 3
	1, 1

L.C.M. = 12

2	6, 3
3	3, 3
	1, 1

L.C.M. = 6

(e) $5-2\frac{1}{2}$

$=\frac{5}{1}\times 2-\frac{5}{2}\times 1$

$=\frac{10-5}{2}=\frac{5}{2}$ **Ans.**

3	5, 15
5	5, 15
	1, 1

L.C.M. = 3 × 5 = 15

(g) $\frac{13}{16}\times 9-\frac{4}{9}\times 16$

$=\frac{117-72}{144}$

$=\frac{45}{144}$ **Ans.**

3	16, 9
3	16, 3
4	16, 1
4	4, 1
	1, 1

L.C.M. = 144

(h) $1\frac{7}{12}-1\frac{1}{3}$

$=\frac{19}{12}-\frac{4\times 4}{3}$

$=\frac{19-16}{12}$

$=\frac{3}{12}=\frac{1}{2}$ **Ans.**

2	12, 3
2	6, 3
3	1, 1
	1, 1

L.C.M. = 12

(i) $1\frac{1}{2}-\frac{4}{5}$

$\frac{3}{2}\times 5-\frac{4}{5}\times 2$

$\frac{15-8}{10}$

$=\frac{7}{10}$ **Ans.**

2	2, 5
5	1, 5
	1, 1

L.C.M. = 10

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

$\frac{7}{3}\times 4-\frac{3}{4}\times 3$

$\frac{28-9}{12}$

$=\frac{19}{12}$ **Ans.**

2	3, 4
2	3, 2
3	3, 1
	1, 1

L.C.M. = 12

(k) $3\frac{4}{7}-1\frac{4}{5}$

$\frac{25}{7}\times 5-\frac{9}{5}$

$\frac{125-63}{35}$

$=\frac{62}{35}$

$=1\frac{27}{35}$ **Ans.**

5	7, 5
7	7, 1
	1, 1

L.C.M. = 35

(l) $7-4\frac{1}{3}$

$\frac{7}{1}\times 3-\frac{13}{3}$

$\frac{21-13}{3}$

$=\frac{8}{3}=2\frac{2}{3}$ **Ans.**

4. (c) Distance between Rani's home and school $=4\frac{3}{10}$ km

Distance between Raju's home and school $=1\frac{1}{5}$ km

Distance Rani need to cover than Raju to reach school everyday $= 4\frac{3}{10} - 1\frac{1}{5}$ km

$4\frac{3}{10} - 1\frac{1}{5}$

$\frac{43}{10} \times 1 - \frac{6}{5} \times 2$

$\frac{43-12}{10}$

$= \frac{31}{10}$

$= 3\frac{1}{10}$ km **Ans.**

Ans. Rani need to cover $3\frac{1}{10}$ km than Raju to reach school everyday.

(d) Petrol filled in car while going to office $= 7\frac{3}{4}$ *l*

Petrol left in evening $= 5\frac{1}{2}$ *l*

Petrol consumed by car during the day =

$7\frac{3}{4} - 5\frac{1}{2}$

$\frac{31}{4} - \frac{11}{2} \times 2$

$\frac{31-22}{4}$

$= \frac{9}{4}$

$= 2\frac{1}{4}$ l

$2\frac{1}{4}$ *l* petrol consumed by car during the day.

(e) Money spent by mother $= 40\frac{1}{5}$

Money given by mother to shopkeeper = ₹ 50

Money she get back = $\frac{50}{1} - 40\frac{1}{5}$

$\frac{50}{1} - \frac{201}{5}$

$\frac{50}{1} \times 5 - \frac{201}{5}$

$\frac{250-201}{5}$

$= \frac{49}{5}$

$= ₹ 9\frac{4}{5}$

4. (a) $4\frac{3}{10} + 1\frac{1}{5}$

$\frac{43}{10} + \frac{6}{5} \times 2$

$\frac{43+12}{10}$

$= \frac{55}{10}$

$\frac{9}{1} - \frac{55}{10}$

$\frac{90-55}{10}$

$= \frac{35}{10}$

$= 3\frac{5}{10}$ **Ans.**

(b) $5\frac{3}{4} - 2\frac{1}{8}$

$\frac{23}{4} \times 2 - \frac{17}{8}$

$\frac{46-17}{8}$

$= \frac{29}{8}$

$\frac{29}{8} \times 2 + \frac{9}{16}$

$\frac{58+9}{16}$

$= \frac{67}{16}$

$= 4\frac{3}{16}$ **Ans.**

Chapter

8 Measurement

EXERCISE 8.1

1. (a) 7 km

1 km = 1000 m

7 km = 7 × 1000

= 7000 m **Ans.**

(b) 6 km 225 m

1 km = 1000 m

6 km = 6 × 1000

= 6000 m

= 6000 m + 225 m

= 6225 m **Ans.**

(c) 9 km 205 m

1 km = 1000 m

9 km = 9 × 1000

= 9000 m

9000 m + 205 m

= 9205 m **Ans.**

(d) 2 km 95 m

1 km = 1000 m

2 km = 2 × 1000

= 2000 m

2000 m + 95 m

= 2095 m **Ans.**

2. (a) 6 m 1 m = 100 cm

6 m = 6 × 100

= 600 cm **Ans.**

(b) 8 m 12 cm

1 m = 100 cm

8 m = 8 × 100

= 800 cm

800 cm + 12 cm

= 812 cm **Ans.**

(c) 10 m 56 cm

1 m = 100 cm

10 m = 10 × 100

(d) 21 m 8 cm

1 m = 100 cm

21 m = 21 × 100

= 1000 cm **Ans.**

1000 cm + 56 cm

= 1056 cm **Ans.**

3. (a) 8 cm 2 mm

1 cm = 10 mm

8 cm = 8 × 10 mm

= 80 mm

80 mm + 2 mm

= 82 mm **Ans.**

(b) 12 cm 4 mm

1 cm = 10 mm

12 cm = 12 × 10 mm

= 120 mm

120 mm + 4 mm

= 124 mm **Ans.**

(c) 15 cm

1 cm = 10 mm

15 cm = 15 × 10 mm

= 150 mm **Ans.**

(d) 20 cm 6 mm

1 cm = 10 mm

20 cm = 20 × 10 mm

= 200 mm

200 mm + 6 mm

= 206 mm **Ans.**

4. (a) 70 mm = 7 cm

$1\text{ mm} = \frac{1}{10}\text{ cm}$

$70\text{ mm} = \frac{\cancel{70}}{\cancel{10}}\text{ cm}$

(b) 62 mm = 6 cm 2 mm

$1\text{ mm} = \frac{1}{10}\text{ cm}$

$62\text{ mm} = \frac{62}{10}\text{ cm}$

6 cm 2 mm **Ans.**

(c) 100 mm = 10 cm

$1\text{ mm} = \frac{1}{10}\text{ cm}$

$100\text{ mm} = \frac{\cancel{100}}{\cancel{10}}$

$= 10\text{ cm}$ **Ans.**

(d) 126 mm = 12 cm 6 mm

$1\text{ mm} = \frac{1}{10}\text{ cm}$

$126\text{ mm} = \frac{12.6}{10}\text{ cm}$

= 12 cm 6 mm **Ans.**

5. (a) $1\text{ cm} = \frac{1}{100}\text{ m}$

$600\text{ cm} = \frac{\cancel{600}}{\cancel{100}}\text{ m}$

= 6

(b) $1\text{ cm} = \frac{1}{100}\text{ mm}$

$726\text{ cm} = \frac{726}{100}\text{ mm}$

$= 7.26\text{ m}$ **Ans.**

(c) 1000 cm = 10 m 0 cm

$1\text{ cm} = \frac{1}{100}\text{ m}$

$1000\text{ cm} = \frac{\cancel{1000}}{\cancel{100}}\text{ m}$

= 10 m **Ans.**

(d) 1265 cm = 12 m 65 cm

$1\text{ cm} = \frac{1}{100}\text{ m}$

$1265\text{ cm} = \frac{12.65}{100}\text{ m}$

12 m 65 cm **Ans.**

6. (a) 8000 m = 8 km

$1\text{ m} = \frac{1}{1000}\text{ km}$

$8000\text{ m} = \frac{8000}{1000}\text{ km}$

= 8 km **Ans.**

(b) 8790 m = 8 km 790 m

$1\text{ m} = \frac{1}{1000}\text{ km}$

$8790\text{ m} = \frac{8790}{1000}\text{ km}$

= 8 km 790 m **Ans.**

(c) 15875 m = 15 l, 875 m

$1\text{ m} = \frac{1}{1000}\text{ km}$

$15875\text{ m} = \frac{15.875}{1000}\text{ km}$

= 15 km 875 m

(d) 20495 m 20 km 495 m

$1\text{ m} = \frac{1}{1000}\text{ km}$

$20495\text{ m} = \frac{20.495}{1000}\text{ km}$

= 20 km 495 m

EXERCISE 8.2

1. (a)

Km	m	cm
54	275	92
76	806	65
+ 5	078	09
136	093	66

(b)

m	cm	mm
105	72	9
264	38	7
+ 68	54	4
438	66	0

(c)

Km	m
17	450
+ 59	290
76	740

2. (a)

km	m
725	620
105	287
+ 218	162
1049	069

(b)

km	m	m
45	282	25
+ 38	710	95
83	993	20

(c)

m	cm
308	9
254	62
+ 72	85
635	56

3. (a)

km	m
218	~~215~~ 195
− 109	786
108	429

(b)

m	cm
~~102~~ 101	~~45~~ 145
− 78	56
23	89

(c)

m	cm	mm
~~125~~ 124	~~08~~ 18	~~8~~ 6
− 96	79	8
28	28	8

4. (a)

km	m
48	~~321~~ 211
− 35	289
13	032

(b)

km	m
~~100~~ 099	~~000~~ 910
− 85	785
14	215

(c)

m	cm	mm
~~70~~ 69	~~28~~ 117	~~7~~ 17
− 65	85	9
4	32	8

(d)

km	m	cm
~~30~~ 29	~~095~~ 1085	~~09~~ 1410
− 26	289	80
3	805	29

5. (a) Length of roll of electric wire = 130 m

Length of piece cut = 18 m 75 cm

Length of wire left in the roll =

m	cm
~~130~~ 129	~~00~~ 910
− 18	75
111	25

Ans. 111 m 25 cm wire left in the roll.

(b) Family travelled on the first day = 56 km 525 m

Family travelled on the second day = 45 km 265 m

Family travelled on the third day = 38 km 285 m

Total distance covered =

km	m
~~56~~ 21	1525
45	265
+ 38	285
140	075

Ans. Mohit and his family travelled 140 km 075 m

(c) Distance from Delhi to Haridwar = 250 km

Distance Mr. Rawat already covered = 178 km 575 m

Distance he need to travel more =

km	m
~~250~~ 149	~~000~~ 9910
− 178	575
071	425

Ans. Mr. Rawat has to covere 71 km 425 m distance more.

(d) Aman ran for the school race = 1 km 250 m 35 cm

Akash ran for the scholl race = 2 km 325 m 65 cm

Sameer ran for the school race = 3 km 175 m 22 cm

Total distance they covere =

	km	m	cm
	1	250	35
	2	325	65
+	3	175	22
	6	751	22

Ans. They cover 6 km 751 m 22 cm altogether.

EXERCISE 8.3

1. (a) 1 kg = 1000 g

12 kg = 12 × 1000

= 12000 g

(b) 1 kg = 1000 g

15 kg = 15 × 1000

= 15000 g

(c) 1 kg = 1000 g

20 kg = 20 × 1000

= 20,000 g

20,000 g + 275 g

= 20,275 g

(d) 1 kg = 1000 g

65 kg = 65 × 1000

= 65000 g

65000 g + 145 g

= 65145 g

(e) 1 kg = 1000 g

20 kg = 20 × 1000

= 2000 g

2000 g + 50 g

= 2050 g

2. (a) $1\ g = \frac{1}{1000}\ kg$

$7000\ g = \frac{7000}{1000}\ kg$

$= 7\ kg$

(b) 6298 g

$1\ g = \frac{1}{1000}\ kg$

$6298\ g = \frac{6.298}{1000}\ kg$

= 6 kg 298 g

(c) 13275 g

$1\ g = \frac{1}{1000}\ kg$

$13275\ g = \frac{13.275}{1000}\ kg$

$= 13\ kg\ 275\ g$

(d) 18079 g

$1\ g = \frac{1}{1000}\ kg$

$18079\ g = \frac{18079}{1000}\ kg$

= 18 kg 79 g

EXERCISE 8.4

1. (a)

	kg	g
	610	156
+	285	487
	895	643

(b)

	kg	g
	450	350
	125	487
+	267	518
	843	355

(c)

	kg	g
	35	430
	125	835
+	218	135
	379	400

2. (a)

	kg	g
	358	275
	248	687
+	23	195
	639	157

(b)

	kg	g
	145	328
	56	75
+	75	310
	276	713

(c)

	kg	g
	708	58
	217	120
+	85	85
	1010	263

3. (a)

	kg	g
	~~250~~	~~725~~
−	187	486
	895	239

(b)

	kg	g
	~~375~~	~~250~~
−	189	469
	185	329

(c)

	kg	g
	~~400~~	~~100~~
−	275	371
	124	329

4. (a)

	kg	g
	~~780~~	~~125~~
−	625	280
	154	845

(b)

	kg	g
	~~400~~	~~105~~
−	385	000
	015	105

(c)

	kg	g
	~~500~~	~~00~~
−	464	90
	35	10

5. Sweets sold on Monday = 20 kg 250 g

Sweets sold on tuesday = 35 kg 625 g

Sweets sold on Wednesday = 50 kg

Total sweets sold on all three days

	kg	g
	20	250
	35	625
−	50	000
	105	875

Ans. 105 kg 875 g sweets were sold on all three days.

6. Weight of a sock of potatoes = 56 kg

Potatoes were taken out = 28 kg 750 g

Weight of potatoes in the sack =

	kg	g
	~~56~~	~~000~~
−	28	750
	27	250

27 kg 250 g potatoes are there in the sack now.

7. Weight of Avinash = 21 kg 325 g

Weight of his sister = 17 kg 687 g

	kg	g
	~~21~~	~~325~~
−	17	687
	3	638

Avinash weighs more by 3 kg 638 g.

8. Weight of Vinay now = 58 kg 215 g

Vinay gained = 2 kg 775 g

Weight of Vinay earlier =

	kg	g
	~~58~~	~~215~~
−	2	775
	55	440

Earlier the weight of Vinay is 55 kg 440 g

EXERCISE 8.5

1. (a) 1 l = 1000 ml

6 l = 6 × 1000

= 6000 ml

(b) 7 l 250 ml

1 l = 1000 ml

7 l = 7 × 1000

= 7000 ml

7000 ml + 250 ml

= 7250 ml

(c) 12 l

1 l = 1000 ml

12 l = 12 × 1000

(d) 15 l 105 ml

1 l = 1000 ml

15 l = 15 × 1000

= 12000 ml

= 15000 ml

= 15000 ml + 105 ml

= 15105 ml

(e) 19 l 725 ml

1l = 1000 ml

19 l = 19 × 1000

= 19000 ml

19000 ml + 725 ml

= 19725 ml

2. (a) $1\text{ ml} = \frac{1}{1000}\text{ l}$

$2000\text{ ml} = \frac{3000}{1000}\text{ l}$

$= 3\text{ l}$

(b) 8000 ml

$1\text{ ml} = \frac{1}{1000}\text{ l}$

$8000\text{ ml} = \frac{8000}{1000}\text{ l}$

$= 8\text{ l}$

(c) 2875 ml

$1\text{ ml} = \frac{1}{1000}\text{ l}$

$2875\text{ ml} = \frac{2.875}{1000}\text{ l}$

$= 2\text{ l } 875\text{ ml}$

(d) 70000 ml

$1\text{ ml} = \frac{1}{1000}\text{ l}$

$70000\text{ ml} = \frac{70000}{1000}\text{ l}$

$= 70\text{ l}$

(e) 35065 ml

$1\text{ ml} = \frac{1}{1000}\text{ l}$

$35065\text{ ml} = \frac{35.065}{1000}\text{ l}$

$= 35\text{ l } 65\text{ ml}$

EXERCISE 8.6

1. (a)

L	mL
25	378
+ 18	487
43	862

(b)

L	mL
125	205
276	389
+ 85	075
486	669

(c)

L	mL
375	145
65	840
+105	338
546	323

2. (a)

l	ml
27	315
+ 16	450
43	765

(b)

l	ml
52	408
78	365
+ 39	270
170	043

(c)

l	ml
562	000
256	105
+118	287
936	392

3. (a)

L	ml
25	325
− 16	414
08	911

(b)

L	mL
125	724
−108	085
17	639

(c)

L	mL
100	625
− 81	739
18	886

4. (a)

l	ml
20	300
− 19	256
01	044

(b)

l	ml
45	000
− 42	628
02	372

(c)

l	ml
700	000
− 689	208
010	792

5. Mr. Sharma's family consumes water everyday = 275 l 500 ml

Neighbour family consumes water everyday = 385 l 175 ml

Total con sumption of both families =

l	ml
275	500
+ 385	175
660	675

Both families consume 660 l 675 ml water everyday.

l	ml
385	175
− 275	500
109	675

Ans. Neighbour family consumes more water by 109 l 675 ml

6. Milk needed for a wedding = 1000 l

Milk supply that time in wedding 289 l

Milk needed

l	ml
1000	00
− 289	00
719	00

Ans. 719 l more milk was needed for wedding.

7. Quantity of diesel bought = 90 l 500 ml

Quantity of diesel use3d = 68 l 825 ml

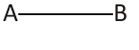
Quantity of diesel still left in the bus =

l	ml
90	500
− 68	825
21	875

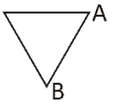
Ans. 21 l 875 ml diesel is left in the bus.

Chapter 9 Geometry

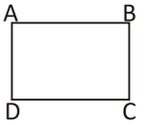
1. (a)



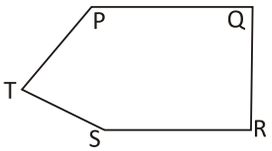
(b)



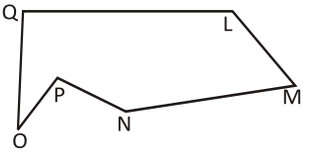
(c)



(d)



(e)



2. (a) 3 Name - AB, BC, AC, (b) 4 Name - AB, BD, CD, AC

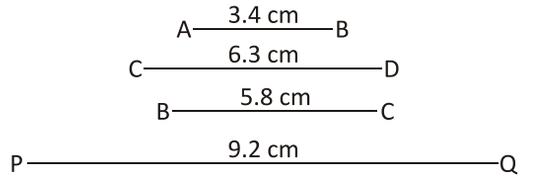
(c) 4 Name - AB, BC, CD, DE, (d) 2 Name - AB, BC

(e) 5 Name - AB, BC, CD, DE, AE

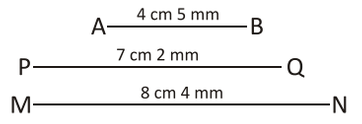
EXERCISE 9.2

1. (a) 3.8, (b) 3.8, (c) 3.8, (d) 3.8

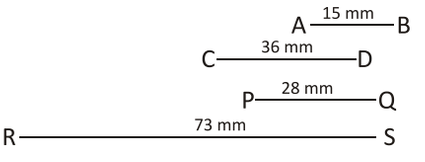
2. (a)



(b)



(c)

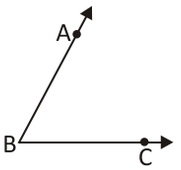


EXERCISE 9.3

1. (a) $\angle ABC$, (b) BA, BC, (c) B

2. (a) Y, (b) A, S, (c) B, C

3.



$\angle ABC$

Arms - BA, BC

Vertex - B

EXERCISE 9.4

1. (a) Triangle, (b) Quadrilateral, (c) Pentagon, (d) Hexagon

3. (a) Isosceles Triangle, (b) Obtuse triangle, (c) Equilateral triangle, (d) Righ triangle

EXERCISE 9.5

1. **(a) Rectangle—** Opposite sides are equal and parallel.
All angles aare right angle.

(b) Square— All sides are equal.
All angle are right equal.

(c) Rectangle— opposite sides are equal and parallel.
All angles are right angle.

(d) Parallelogram— Opposite sides are parallel and equal.
Opposite angles are equal.

(e) Trapezium— Only one pair of parallel sides.
If non parallel sides are equal then it is known as isosceles trapezium.

EXERCISE 9.6

1. (a) O, (b) OB, (c) PB, (d) M, Y, (e) Z, X

2. (a) T, (b) F, (c) T, (d) T

Multiple Choice Questions

1. (a), **2.** (b), **3.** (b)

Chapter 10 Money and Bill

EXERCISE 10.1

1. Cost of toy = ₹ 60.75

Cost of pen = ₹ 13.50

Total amount he spend =

₹	P
60	75
+ 13	50
74	25

Ans. He spend ₹ 74.25

2. Cost of vase = ₹ 78.50

Money gave to shopkeeper = ₹ 100

Money returned by shopkeeper =

₹	P
1Ø0	Ø0
+ 78	50
21	50

Ans. ₹ 21.50 was returned by shopkeeper to her.

3. Cost of 1 pair of socks = ₹ 35.70

Cost of 7 pair of socks = ₹ 35.70

₹	P
35	70
×	7
249	90

Ans. Cost of 7 pair of socks is ₹ 249.90.

4. Cost of 1 pen = ₹ 21.75

Cost of 3 pens

₹	P
21	75
×	3
65	25

Money gave to shopkeeper = ₹ 50

More amount she has to pay to the shopkeeper =

₹	P
65	25
– 50	00
15	25

She has to pay ₹ 15.25 more to the shopkeeper.

5. Cost of 1 kg laddoos = ₹ 50

Cost of 2 kg 500 g laddoos =

1 kg = ₹ 50

2 kg = ₹ 50 × 2

= ₹ 100

500 g = ₹ 25

₹ 100 + ₹ 25 = ₹ 125

Cost of 2 kg 500 g laddoos = ₹

6. Cost of 7 tickets = ₹ 190.75

Cost of 1 ticket =

```
   27.25
7)190.75
 -14
  50
 -49
   17
  -14
    35
    25
     0
```

Ans. Cost of 1 ticket is ₹ 27.25

7. Money spent by Reena = ₹ 75.25

Money left with her = ₹ 215.50

Money she had prior to coming to the market =

₹	P
215	50
× 75	25
290	75

Ans. She had ₹ 290.75 before coming to the market.

8. Cost of 1 kg mustard oil = ₹ 50

Cost of 2 kg 400 g oil =

kg	g
2	400
×	50
0	000
+ 120	00×
120	000

Cost of 2 kg 400 g oil is ₹ 120.00

9. Money Aditi has = ₹ 89.75

Tarun has ₹ 65.50 more than Aditi

Amount of Money Tarun has =

₹	P
89	75
65	50
155	25

Ans. Tarun has ₹ 155.25.

10. Cost of 21 notebook = ₹ 16.50

Cost of 2 notebook = ₹ 16.50 × 2

₹	P
16	50
×	2
33	00

Cost of 1 pencil = ₹ 2.50

Cost of 5 pencils =

₹	P
2	50
×	5
12	50

Cost of pencil box = ₹ 36.75

Money gave to the shopkeeper = ₹ 100

Total money spent =

₹ 33 + ₹ 12.50

₹ 36.75

= ₹ 82.25

Amount returned by the shopkeeper =

₹	P
100	00
82	25
17	75

₹ 17.75 was returned by the shopkeeper.

EXERCISE 10.2

1. (a) ₹ 50 × 12 = ₹ 600

(b) ₹ 36 × 12 = ₹ 432

(c) ₹ 22 × 25 = ₹ 550

(d) ₹ 15 × 12 = ₹ 180

Total amount = ₹ 1762

2. ₹ 47.5

3. (a)

Qty	**items**	**Cost**
3	Burger	62.25
2	French fires	36
3	Ice tea	52.2
4	Cold coffee	120
	Total cost	₹ 270.45

(b)

Qty	**items**	**Cost**
4	Soup	140
3	Juice	75
4	Pizza	140
5	Ice creame	100
	Total cost	₹ 455

Multiple Choice Questions

1. (c), **2.** (b), **3.** (c), **4.** (b).

Chapter

11 Time

EXERCISE 11.1

1. (a) 3 : 10 (b) 1 : 59, (c) 4 : 28

2. (a)  (b)  (c)  (d) 

3. (a) 9 minutes after 10

(b) 10 minutes before 9

(c) 12 minutes after 5

(b) 12 minutes before 5

EXERCISE 11.2

1. (a) 7:30 in the morning is written as **7:30 a.m.** .

(b) 9:40 p.m. means 9:40 in the **night**.

(c) 12 o'clock at night is written as **12:00 midnight**.

(d) 12 o'clock at daytime is written as **12:00 noon**.

(e) 1 go to school at 7:50 **a.m.**

(f) I have my lunch at 2:15 **p.m.**

(g) I go to play at 4:30 **p.m.**

(h) The train arrives in the morning at 6:50 **a.m.**

(i) The world cup football match will be telecast late at night at 2:30 **a.m.**

(j) The night duty watchman finishes his duty at 5:30 **a.m.**

(k) Father listens to the English news while having his dinner at 10:05 **p.m.**

2. (a) 5 hours after 3:30 a.m. **8:30 a.m.** .

(b) 3 hours before 2:30 p.m. **11:30 a.m.**

(c) 7 hours after 12 midnight 7:00 **a.m.**

(d) 7 hours before 12 midnight 5:00 **p.m.**

EXERCISE 11.3

1. (a) 11:10 a.m. ⟶ 6:10 p.m. = **7 hours**

(b) 3:40 a.m. ⟶ 12:40 p.m. = **7 hours**

12:40 p.m. ⟶ 5:40 p.m. = **5 hours**
5:40 p.m. ⟶ 6:20 p.m. = **40 minutes**
9 hours + 5 hours + 40 minutes
= 14 hours 40 minutes

(c) 8:20 a.m. ⟶ 10:20 a.m. = **2 hours**
10:20 a.m. ⟶ 10:45 a.m. = **25 minutes**
2 hours + 25 minutes
= 2 hours 25 minutes

(d) 12 noon ⟶ 6 p.m. = **6 hours**
6 p.m. ⟶ 9 p.m. = 3 hours
9 p.m. ⟶ 9:38 p.m. = **38 minutes**
6 hours + 3 hours + 38 minutes
= 9 hours 38 minutes

2. (a) 8:20 a.m. ⟶ 12:20 p.m. = **4 hours**
12:20 ⟶ 3:20 p.m. = **3 hours**
3:20 p.m. ⟶ 3:30 p.m. = **10 minutes**
4 hours + 3 hours + 10 minutes
= 7 hours 10 minutes

(b)

hrs		min
6	:	40
0	:	40
6	:	80

80 minutes — (1 hours 20 minutes)
Ans. He will return at 7:20 a.m.

(c)

hrs		min
10	:	45
01	:	20
11	:	65

65 minutes — (1 hours 5 minutes)
She was returned at 12:05 p.m.

EXERCISE 11.4

1. (a)

hrs		**min**
3	:	40
+ 2	:	15
5	:	55

Ans. 5 hrs. 55 min.

(b)

hrs	**min**
2	30
+ 4	50
6	80
+ 1	60
7	20

Ans. 7 hours 20 min

(c)

Hrs.	min
5	18
+ 3	32
8	50

Ans. 8 hrs. 50 min

(d)

Hrs.	min
12	25
+ 18	36
30	61
+ 1	60
21	1

31 hrs 1 hrs

(e)

Hrs.	min
10	05
+ 13	17
23	22

23 hrs. 22 min.

(f)

Hrs.	min
16	8
+ 09	9
26	7

26 hrs. 7 min.

2. (a)

hrs.	min
6	40
− 3	30
3	10

3 hrs. 10 min.

(b)

Hrs.	min
13	15
− 07	25
− 12	75
07	25
5	50

5 hrs 50 min

(c)

hrs.	min
14	
15	5
− 9	30
14	65
− 9	30
5	35

5 hrs. 35 min.

(d)

hrs.	min
11	
12	00
10	40
11	60
− 10	40
1	20

1 hrs. 20 min.

(e)

hrs.	min
15	20
− 10	15
5	5

5 hrs. 5 min.

(f)

hrs.	min
11	30
8	50
10	60
− 8	50
2	10

2 hrs. 10 min.

3. Total time spend on studies and workout = 5 hrs. 50 min
Time spend on workout only = 2 hrs. 30 min
Time spend in studies =

hrs.	min
5	50
− 2	30
3	20

I spend 3 hrs. 20 min on my studies.

4. Total journey time from Delhi to Los Angeles = 23 hrs. 40 min.
Heat at tokyo in between = hrs. 50 min
Flying time =

hrs.	min
23	40
− 7	50
22	100
− 7	50
15	50

Ans. The flying time is 15 hrs. 50 min.

5. Total time for cricket match = 6 hrs 30 min
Time of rain = 2 hrs. 20 min
Time of game played =

hrs.	min
6	30
– 2	20
4	10

Ans. The game was played 4 hrs. 10 min.

EXERCISE 11.6

1. No. of days in May = 31 – 9 = 22
No. of days in June = 30
No. of days in July = 11
Total no. of days = 22 + 30 + 11 = **63 days**

2. No. of days in October = 31 – 81 = 31 dyas
No. of days in November = 5 days
Total no. of Days = 13 + 5 = **18 days**

3. No. of days in April = 31 – 25 = 6 days
No. of days in May = 31 days
No. of days in June =16 days.
Total no. of days = 6 + 31 + 16 = **53 days**

4. No. of days in September = 30 – 4 = 26 days
No. of days in Actober = 4 days
Total no. of days = 26 + 4 = **30 days**

5. No. of days in May = 31 – 2 = 29 days
No. of days in June = 14 days
Total no. of days = 29 + 14 = **43 days**

6. No. of days in December = 31 – 22 = 9 days
No. of days in January = 21 days
Total no. of days = 21 + 9 = **30 days**

7. No. of days in August = 31 – 14 = 17 days
No. of days in September = 7 days
Total no. of days = 17 + 7 = **24 days**

Chapter

12 Perimeter and Area

EXERCISE 12.1

1. (a) 9 cm + 5 cm + 9 cm + 5 cm = **28 cm**
(b) 8 m + 8 m + 8 m + 8 m = **32 m**
(c) 6 cm + 3 cm + 2 cm + 2 cm + 2 cm + 3 cm + 6 cm + 3 cm + 2 cm + 2 cm + 2 cm + 3 cm = **36 cm**
(d) 3 cm + 4 cm + 5 cm + 3 cm = **15 cm**
(e) 4 cm + 3 cm + 2 cm + 3 cm = **12 cm**
(f) 5 cm + 5 cm + 5 cm + 5 cm + 5 cm = **25 cm**

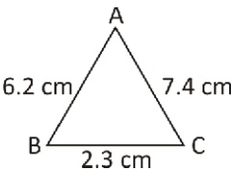
2. (a) Perimeter of rectangle $= 2(l + b)$
$= 2(12 + 8) = 2 \times 20 =$ **40 cm**
(b) Perimeter of rectangle $= 2(l + b)$
$= 2(15 + 13) = 2 \times 28 =$ **56 cm**
(c) Perimeter of rectangle $= 2(l + b)$
$= 2(9 + 4) = 2 \times 13 =$ **26 cm**
(d) Perimeter of rectangle $= 2(l + b)$
$= 2(4.6 + 3.9)$
$= 2(8.5) = 2 \times 8.5 =$ **17.0 m**
(e) Perimeter of rectangle $= 2(l + b)$
$= 2(95 + 75) = 2(170) =$ **340 cm**
(f) Perimeter of rectangle $= 2(l + b)$
$= 2(150 + 125) = 2(275) =$ **550 m**

3. (a) Perimeter of square = 4 side = 2 × 1 cm = **4 cm**
(b) Perimeter of square = 4 side = 4 × 2 cm = **8 cm**
(c) Perimeter of square = 4 side = 4 × 3 cm = **12 cm**

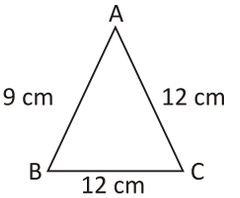
4. (a) Perimeter of square = 4 side = 4 × 9 cm = **36 cm**
(b) Perimeter of square = 4 side = 4 × 4 cm = **16 cm**
(c) Perimeter of square = 4 side = 4 × 12 cm = **48 cm**
(d) Perimeter of square = 4 side = 4 × 15 cm = **60 cm**

EXERCISE 12.2

1. (a) Perimeter of triangle =
AB + BC + AC
6.2 cm + 2.3 cm + 7.4 cm
= **16.9 cm**

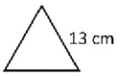


(b) Perimeter of triangle
AB + BC + AC
9 cm + 12 cm + 12 cm
= **33 cm**

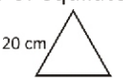


2. (a) Perimeter of equilateral triangle = 3 × side
= 3 × 10 cm
= **3 cm**

(b) Perimeter of equilateral triangle = 3 × side
= 3 × 13 cm
= **39 cm**



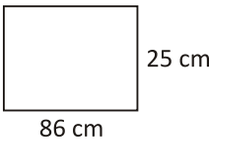
(c) Perimeter of equilateral triangle = 3 × side
= 3 × 20 cm
= **60 cm**



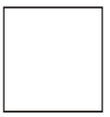
(d) Perimeter of equilateral triangle = 3 × side
= 3 × 9 cm
= **27 cm**

EXERCISE 12.3

1. Length = 86
Breadth = 25 cm
Length of frame = $2(l + b)$)
= 2(86 + 25)
= 2 × 111
= 222 cm



2. Side = 150 m



Perimeter of square = 4 × side
= 4 × 150
= 200 m

Sarita runs two rounds around the field so she covers distance

2 × 200 m = 400 m

Length = 120 m
Breadth = 100 m

Perimeter of rectangle = $2(l + b)$
= 2 (120 + 100)
= 2 × 220 = 440 m

Meenu runs three rounds around the field so she covers distance = 440 × 3 = 1320 m

∴ Meenu covers longer distance

3.

Length = 140 m
Breadth = 90 m

Perimeter of rectangular park $= 2(l + b)$
= 2 (140 + 90)
= 2 × 230 = 46 m

Three rounds of wire fencing = 460 × 3 = 1380 m

So 1380 m of wire is needed.

4. Perimeter of rectangle = 72 cm

Length of rectangle = 25 cm

Breadth of reectangle = ?

Perimeter of rectangle $= 2(l + b)$

72 cm = 2(25 + b)

72 cm = 50 + b

72 cm = 50 cm = b

22 cm = b

breadth = 22 cm

EXERCISE 12.4

1. (a) **15** sq. cm, (b) **9** sq. cm, (c) **10** sq. cm, (d) **8** sq. cm, (e) **11** sq. cm, (f) **8** sq. cm, (g) **5** sq. cm, (h) **15** sq. cm, (i) **11** sq. cm

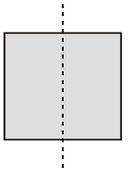
2. (a) 11 sq. cm., (b) 18 sq. cm., (c) 4 sq. cm., (d) 18 sq. cm., (e) 6 sq. cm., (f) 4 sq. cm., (g) 8 sq. cm., (h) 17 sq. cm., (i) 2 sq. cm., (j) 6 sq. cm.

Chapter 13 Symmetry and Patterns

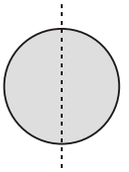
EXERCISE 13.1

1. (a) line segment, (b) rotational, (c) line, (d) reflection

2. (a)



(d)



EXERCISE 13.2

1. (a)

(b)

(c)

2. (a) 18, 22, 26, 30 (b) 222, 66, 67, 201
(c) 8, 6, 4, 2, (d) 56, 51, 46, 41

3. (a) 24, 21, 27, (b) 52, 47, 55
(c) 51, 53, 159 (d) 48, 40, 32

Chapter 14 Data Handling

EXERCISE 14.1

1. July — 150, August — 200, September — 100, October — 200, November — 300

(a) In september, (b) In November, (d) 950 letters =

2. English — 15, Maths — 25, Science — 10, Social Studies — 15

(a) 15 students, (b) 25 students, (c) 5 students, (d) 65 students.

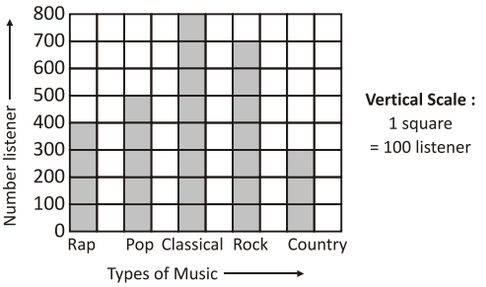
3. Manpreet — 50, Sonal — 40, Divisha — 60, Pawni — 80

(a) 4, (b) 230, (c) 10, (d) 20

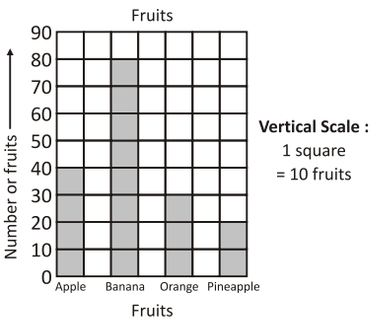
4. (a) Green, (b) Yellow, (c) 4, (d) 7

EXERCISE 14.2

1.



2.



3. (a) marks, (b) no. of students
(c) 14 students (d) 13 students
(e) none (f) 9 marks
(g) 10 marks (h) 1 marks (i) 72 students.