SHARVIL BOOKS

N.E.P. 2020

Essential Aspects of MATHEMATICS

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1–5

Pre Number Concepts

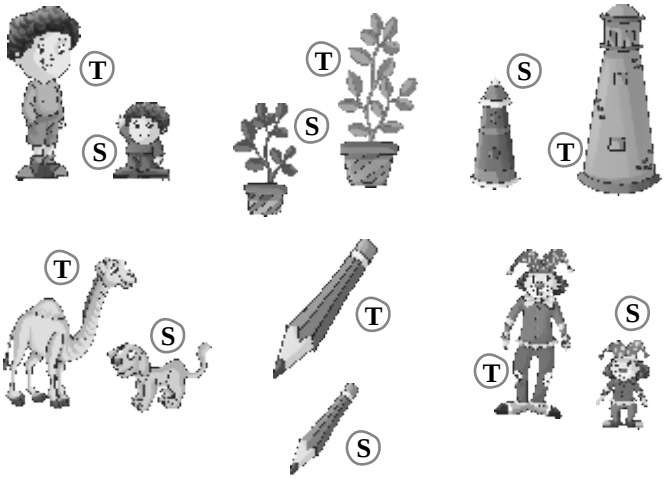
1

Let's Review

Taller and Shorter

Write 'T' for tall and 'S' for short in the circles.

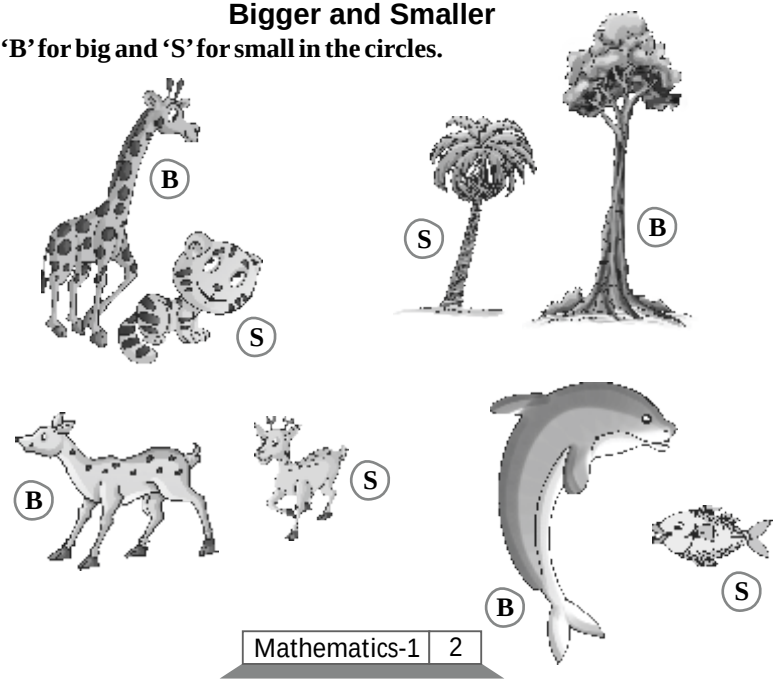
Ans.

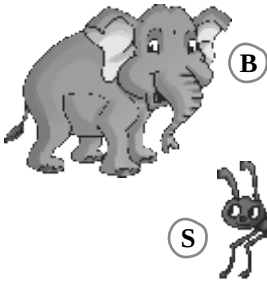


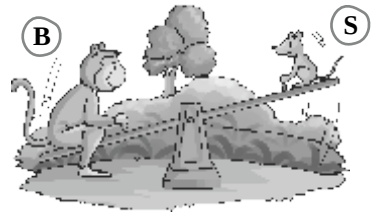
Bigger and Smaller

Write 'B' for big and 'S' for small in the circles.

Ans.

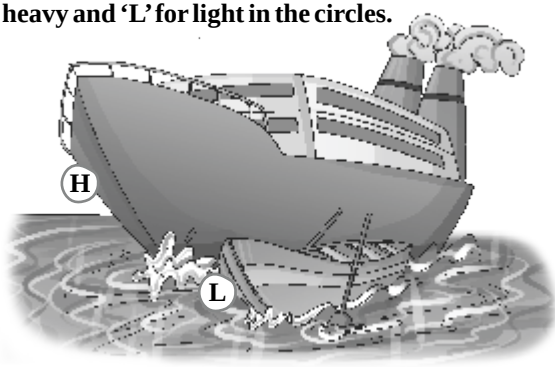


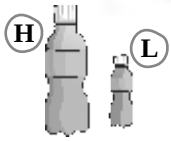


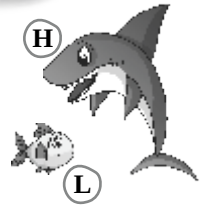


Heavier and Lighter

Write 'H' for heavy and 'L' for light in the circles.
Ans.

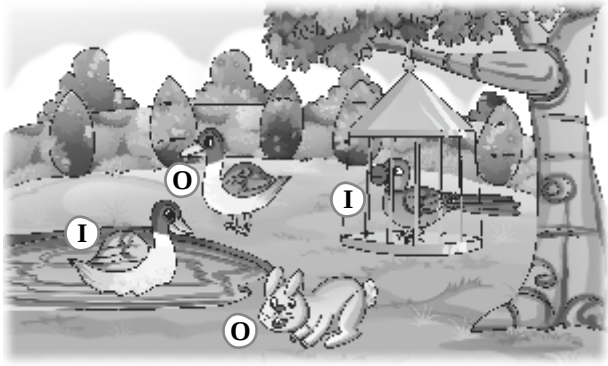


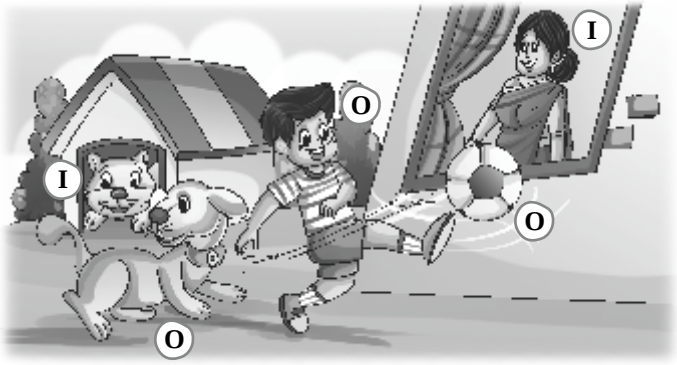




Inside and Outside

Write 'O' for outside and 'I' for inside in the circles.
Ans.





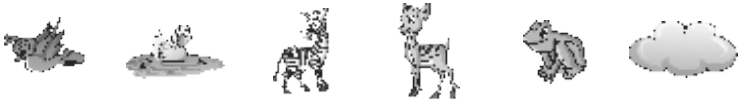
Numbers from 1 to 10

2

Let's Review

Look, count and write. How many of each?

Ans.



5 | 4 | 2 | 3 | 1 | 2

Numbers from 1 to 10

Count and write the numbers from 1 to 10.

Ans.

	1 One	1 1 1 1 1 1 1
	2 Two	2 2 2 2 2 2 2
	3 Three	3 3 3 3 3 3 3
	4 Four	4 4 4 4 4 4 4
	5 Five	5 5 5 5 5 5 5
	6 Six	6 6 6 6 6 6 6
	7 Seven	7 7 7 7 7 7 7
	8 Eight	8 8 8 8 8 8 8

9 Nine

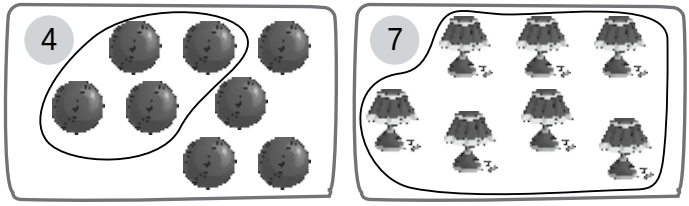
9 9 9 9 9 9 9

10 Ten

10 10 10 10 10 10 10

Circle as many objects as the given number.

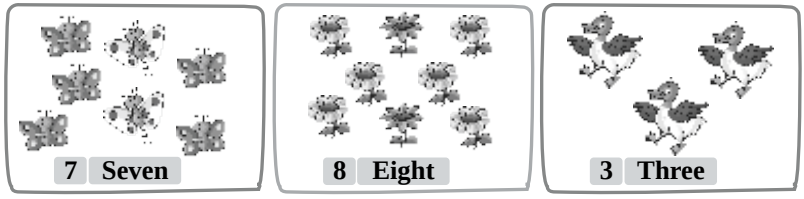
Ans.



Making Group

Count and write the number and its number name.

Ans.



Understanding Zero

How many mangoes are there in the two baskets? Write the numbers in the boxes below.

Ans.

4 **0**

Colour the cloud that has zero objects.

Ans.

Before, After and Between

Write the number.

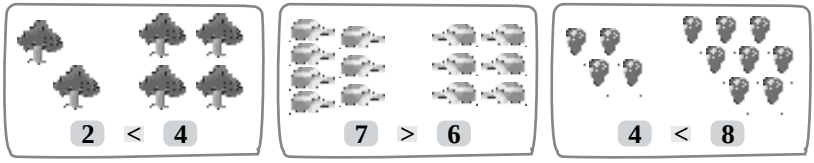
Ans.

before		after		in between		
5	6	0	**1**	1	**2**	3
8	9	7	**8**	3	**4**	5
7	8	5	**6**	6	**7**	8
1	2	8	**9**	8	**9**	10

Comparison of Numbers

Count the number of objects and put >, < or = sign.

Ans.



Biggest and Smallest

Tick (3) the smallest number in each group:

Ans.

1 ✓	2	3	3 ✓	5	7
4 ✓	6	9	2 ✓	9	6
6	3 ✓	7	1 ✓	2	7

Tick (3) the biggest number in each group:

Ans.

7 ✓	3	1	9 ✓	4	0
6 ✓	3	2	1	4	5 ✓
3	4 ✓	2	5	6	8 ✓

Increasing and Decreasing order

Arrange these numbers in :

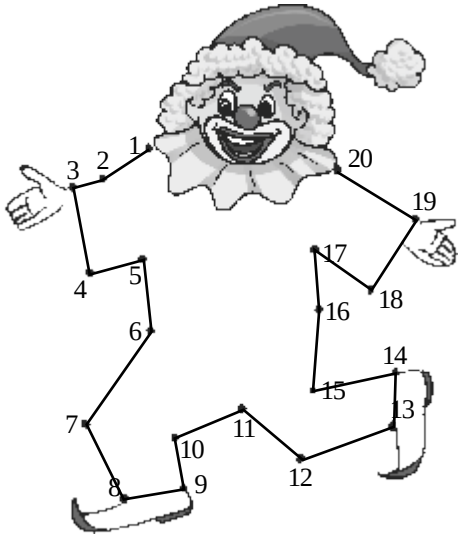
Ans.

	Increasing order		Decreasing order	
1 5 0 8 7	0 1 5 7 8		6 3 2 5 1	6 5 3 2 1
4 8 7 9 2	2 4 7 8 9		2 0 4 1 3	4 3 2 1 0
5 8 9 6 3	3 5 6 8 9		2 0 5 9 7	9 7 5 2 0

Let's Review

Join the dots from 1 to 20 and colour the picture you get.

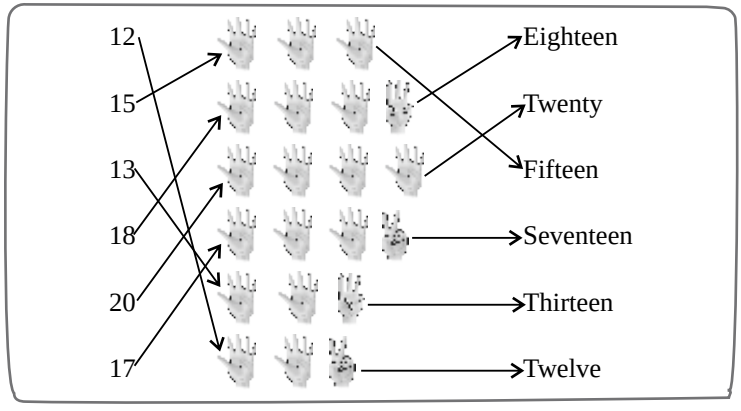
Ans.



Numbers from 11 to 20

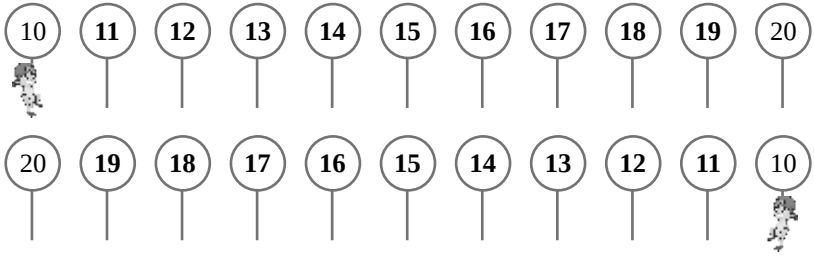
Match the pictures to the correct numbers and number names:

Ans.



Write the missing numbers:

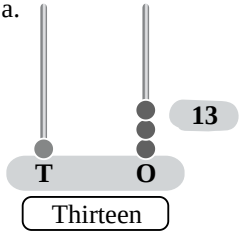
Ans.



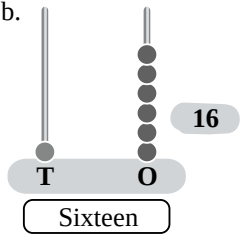
Numbers on Abacus

Look at the abacus. Write the number and number name in the given space:

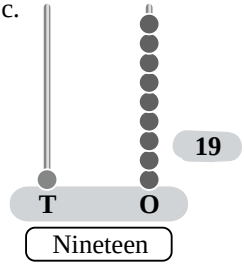
Ans. a.



b.

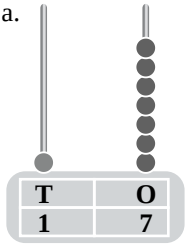


c.

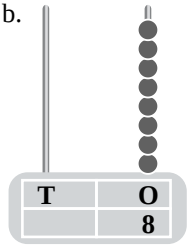


Draw beads on the abacus to show the given numbers:

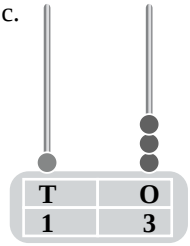
Ans. a.



b.



c.



Biggest and Smallest Numbers

Tick (3) the smaller number in each pair:

Ans. **7** 13 | **15** 17 | **8** 19 | 11 **9**

Cross (7) the bigger number in each pair:

Ans. **7** 13 | **15** 17 | **8** 19 | **11** **9**

Arrange the following numbers in ascending order:

Ans.

14, 17, 10, 19, 13	**10 13 14 17 19**
8, 5, 19, 14, 16	**5 8 14 16 19**
9, 12, 20, 15, 18	**9 12 15 18 20**
18, 9, 12, 10, 11	**9 10 11 12 18**

Arrange the following numbers in descending order.

Ans.

18, 11, 12, 17, 16	**18 17 16 12 11**
14, 16, 9, 8, 15	**16 15 14 9 8**
13, 10, 9, 15, 14	**15 14 13 10 9**
20, 17, 8, 11, 14	**20 17 14 11 8**

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. c. 4. b.

Think And Do

Find the correct spelling of numbers 11-20 from word search.

Ans.

T	H	I	R	T	E	E	N	S	E	V
A	B	E	S	E	V	T	E	N	T	P
T	S	I	E	L	E	V	E	N	J	S
W	F	G	V	K	L	M	N	O	P	Q
E	I	H	E	R	S	T	U	V	W	X
L	F	T	N	I	N	E	T	E	E	N
V	T	E	T	G	T	N	E	X	I	S
E	E	E	E	S	I	X	T	E	E	N
I	E	N	E	Y	T	W	E	N	T	Y
T	N	E	N	T	Y	S	E	X	E	V
S	M	F	O	U	R	T	E	E	N	K

Higher Order Thinking skills

Here are some jumbled words. Get the correct words and write the corresponding numerals.

Ans. 1. Sixteen 2. Twelve 3. Thirteen

Ordinal Numbers

4

Let's Review

Now, answer the following questions:

Ans.
1. Who is first? **Meera**
2. Who is at nineth position? **Deepak**
3. Rita comes on **Sixth.**
4. Tom is at **forth** position.
5. Who is before Kabir? **Sachin**
6. Fatima is at **fifth** position.

Write the order of the letters of the English Alphabet :

Ans.

A - **First**
F - **Sixth**
G - **Seventh**
D - **Fourth**
I - **Nineth**
E - **Fifth**
C - **Third**
H - **Eighth**

Colour the third animal yellow and first animal brown :

Ans.

Think And Do

1. Counting from the right and do the following :

Ans.

Colour the 4th bird. ➧

Colour the 2nd kite. ➧

2. Write the position of letters E and I in the word MATHEMATICS.

Ans. E **Fifth** I **Nineth**

PLAY TIME

Write the ordinal number of the following.

Ans. The tiger is at **First** position. The **giraffe** is at third position.
The **ant** is at seventh position. The turtle is at **sixth** position.
The lion is at **second** position. The **deer** is at fifth position.

MULTIPLE CHOICE QUESTIONS

Look at the picture and tick (3) the correct choice.

Ans. 1. b. 2. a. 3. c.

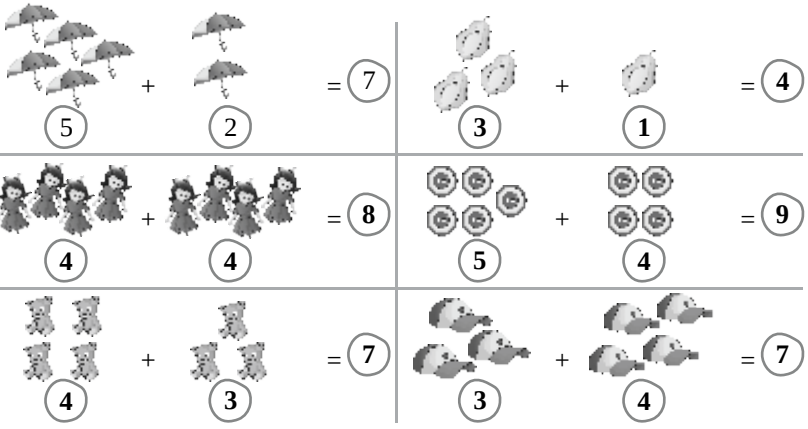
Addition upto 20

5

Let's Review

Count and add :

Ans.

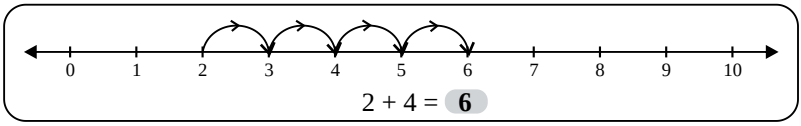


Addition on Number Line

Add these numbers using the number line :

Add 2 and 4.

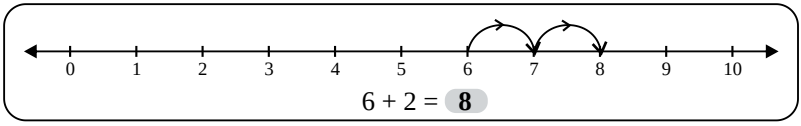
Ans.



2 + 4 = **6**

Add 6 and 2.

Ans.



6 + 2 = **8**

Properties of Addition

Write the missing numbers :

Ans.

9	+	1	=	**10**
3	+	**1**	=	4
1	+	7	=	8

5	+	**1**	=	6
1	+	8	=	9
6	+	1	=	**7**

Now add.

Ans.

3	+	0	=	**3**
8	+	0	=	**8**
2	+	0	=	**2**

0	+	5	=	**5**
1	+	0	=	**1**
0	+	7	=	**7**

Order in Addition

Now add these.

Ans.

7 + 2 = **9** is same as **2** + **7** = **9**

6 + 1 = **7** is same as **1** + **6** = **7**

4 + 2 = **6** is same as **2** + **4** = **6**

5 + 3 = **8** is same as **3** + **5** = **8**

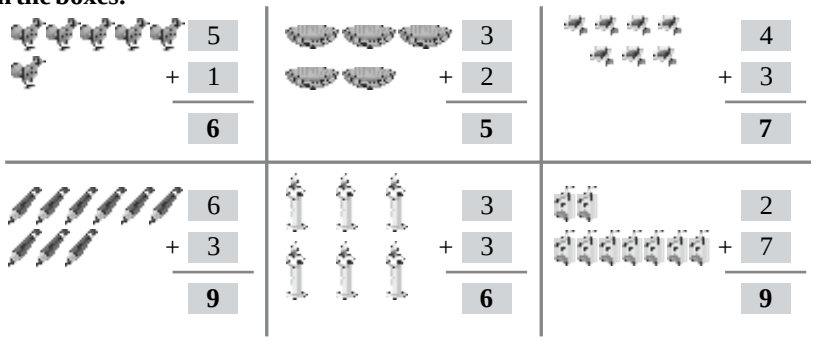
Higher Order Thinking skills

Ans. Abhay is **8** years old.

Vertical (Column) Addition

Fill in the boxes.

Ans.



Add these numbers.

Ans.

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

Add and write the answer in the box.

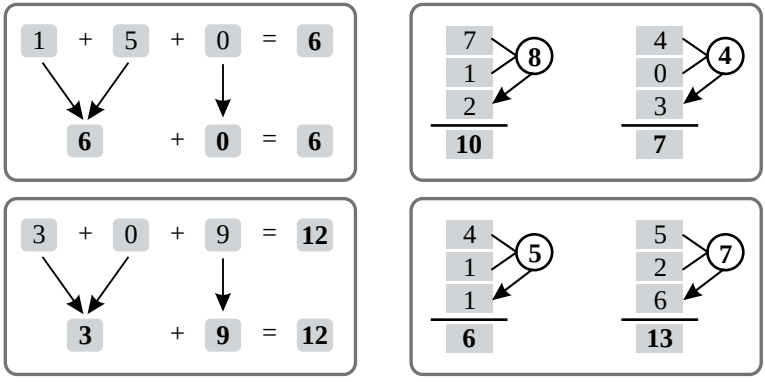
Ans.

8 + 2 = 10	9 + 4 = 13	10 + 8 = 18	12 + 5 = 17	9 + 2 = 11	7 + 4 = 11	7 + 7 = 14	5 + 8 = 13
7 + 9 = 16	6 + 7 = 13	7 + 6 = 13	6 + 5 = 11	4 + 6 = 10	9 + 7 = 16	3 + 9 = 12	6 + 8 = 14

Adding Three Numbers

Add the following.

Ans.



7	+	2	+	5	=	14
9			+	5	=	14

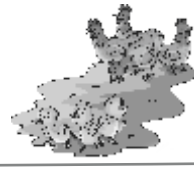
3						1			
4	7					3	4		
2						4			
9						8			

Word Problems

Ans.

1. There were 4 hens and 3 chicks in a farm.

So, there were **7** birds in all.



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

2. Ankur has 4 balloons. Mayank has 5 balloon.

So, they have **9** balloons in all.

$$\begin{array}{r} 4 \\ +\ 5 \\ \hline 9 \end{array}$$

3. There are 3 sheep in the field.

1 more sheep joins them.

Now, there are **4** sheep in all.

$$\begin{array}{r} 3 \\ +\ 1 \\ \hline 4 \end{array}$$

4. Soha had 15 stamps. Her father gave her 5 more. How many stamps does Soha have now?

So, Soha has 20 stamps now.

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

5. There are 12 bananas and 6 apples in a basket. How many fruits are there in the basket?

Now, There are 18 fruits in the basket.

$$\begin{array}{r} {\scriptstyle ①}\,1\,2 \\ +\ 6 \\ \hline 1\,8 \end{array}$$

6. There are 8 mango trees and 7 orange trees in a orchard. How many total trees in the orchard?

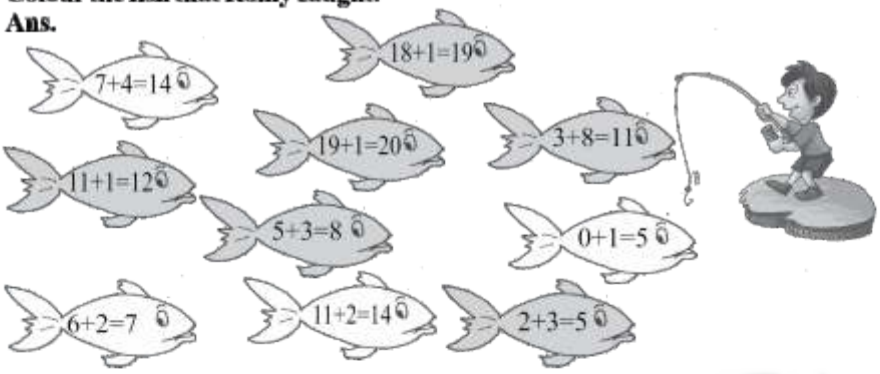
So, there are 15 trees, in the orchard.

$$\begin{array}{r} 8 \\ +\ 7 \\ \hline 1\,5 \end{array}$$

PLAY TIME

Romy wants to catch only those fish which have correct answers on them. Colour the fish that Romy caught.

Ans.



Higher Order Thinking skills

Ans. There are 4 children altogether on the hill now.

MULTIPLE CHOICE QUESTIONS

Tick (✓) the correct choice :

Ans. 1. b. 2. a. 3. b. 4. c.

Subtraction upto 20

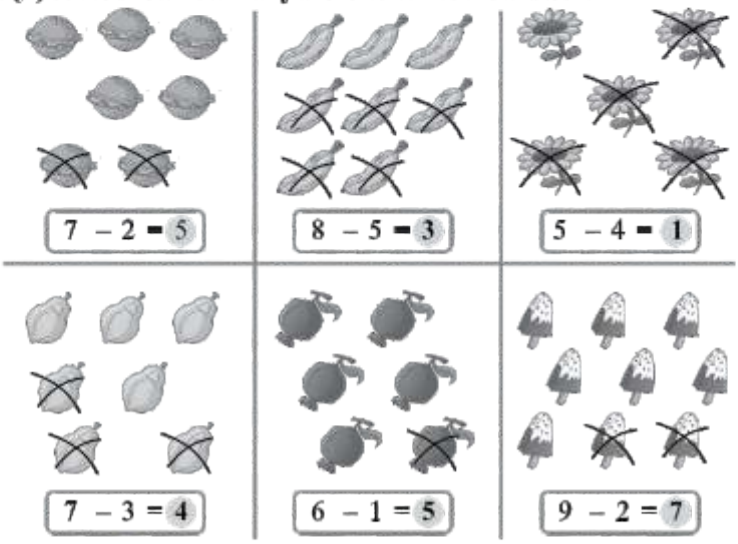
6

Let's Review

Cross Out and Subtract

Cross (X) out to show how many are left? Write the answer:

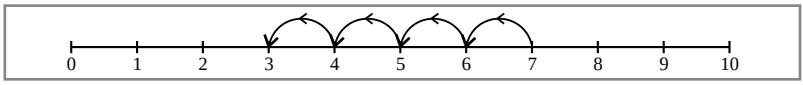
Ans.



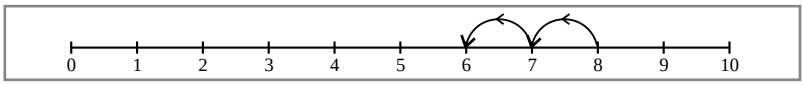
Subtraction on a Number Line

Subtract the numbers on the number line :

Ans. 7 – 4 = **3**



8 – 2 = **6**



9 – 2 = **7**

Subtracting Zero

Subtract :

Ans. 5 – 0 = **5** 8 – 0 = **8**

Subtracting One

Ans. 3 – 1 = **2** 4 – 1 = **3**

Subtract :

Ans. 2 – 1 = **1** 1 – 1 = **0** 3 – 1 = **2**

6 – 1 = **5** 9 – 1 = **8** 8 – 1 = **7**

5 – 1 = **4** 7 – 1 = **6** 10 – 1 = **9**

Subtracting a Number from Itself

Subtract the following :

Ans. 7 – 7 = **0** 9 – 9 = **0** 8 – 8 = **0**

6 – 6 = **0** 1 – 1 = **0** 10 – 10 = **0**

Think And Do

Subtract and colour the box as directed :

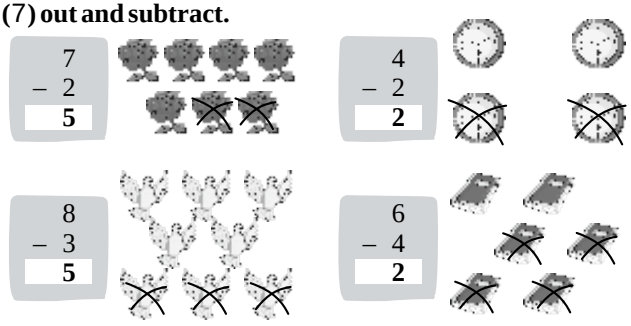
Ans. 2 = **green**
3 = **red**
4 = **yellow**
5 = **pink**
6 = **blue**

5 – 3 **G**	6 – 4 **G**	9 – 7 **G**	7 – 1 **B**
5 – 1 **Y**	5 – 2 **R**	7 – 2 **P**	6 – 3 **R**
8 – 4 **Y**	5 – 0 **P**	7 – 4 **R**	8 – 3 **P**
8 – 2 **B**	7 – 5 **G**	4 – 2 **G**	8 – 5 **R**

Vertical Subtraction

Cross (7) out and subtract.

Ans.



Subtract the following :

Ans.

8 – 6 = **2**	6 – 5 = **1**	7 – 1 = **6**	9 – 2 = **7**	2 – 1 = **1**	4 – 1 = **3**
7 – 3 = **4**	4 – 2 = **2**	5 – 4 = **1**	8 – 4 = **4**	9 – 1 = **8**	8 – 3 = **5**

Higher Order Thinking skills

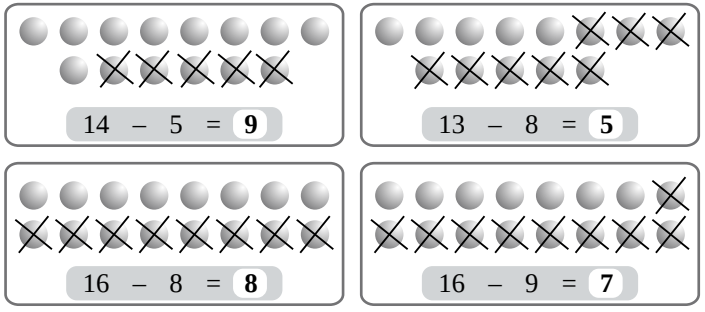
Think and solve these story problems.

Ans. 1. 5 2. 4

Subtraction (1-20)

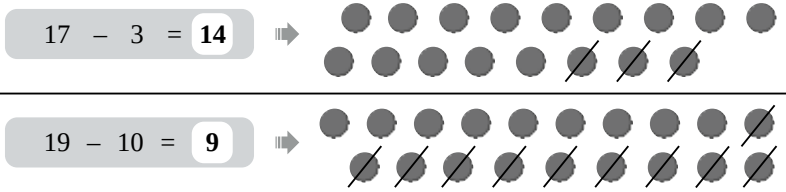
Put a (7) on the marbles you take away:

Ans.

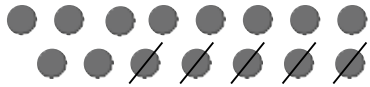


Subtract by making dots and crossing out :

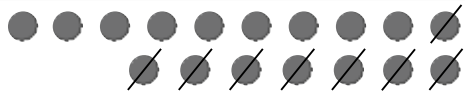
Ans.



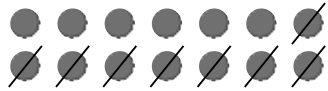
15 – 5 = **10**



17 – 8 = **9**



14 – 8 = **6**



Vertical Subtraction

Draw as many lines as the bigger number. Now, subtract by crossing out them. One has been done for you.

Ans.

15 – 8 = **7**	17 – 6 = **11**	12 – 7 = **5**	19 – 5 = **14**	14 – 8 = **6**
16 – 3 = **13**	15 – 3 = **12**	11 – 10 = **1**	14 – 9 = **5**	

Word Problems

Ans.

1.
Mohit had 7 crayons.
He lost 2 of them.
So, Mohit had left **5** with crayons him.

7 – 2 = **5**

2.
Rajni has 8 dolls.
She gave 3 dolls to her sister.
So, she has left **5** dolls with her.

8 – 3 = **5**

3.
Mahima has 7 flowers.
She gave 3 to her teacher.
So, Mahima has left **4** flowers with her.

7 – 3 = **4**

4.
12 birds are sitting on a tree. 8 of them flew away. So, there are **4** birds left on the tree.

12 – 8 = **4**

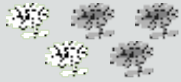
PLAY TIME

Subtract, colour and write the answer.

Ans.

Colour 5 – 3 = **2** balloons

Colour 5 – 2 = **3** flowers



Colour 12 – 2 = **10** balls

Colour 10 – 0 = **10** birds

Colour 6 – 3 = **3** parts

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. b. 4. b. 5. a.

Numbers 21 to 100

7

Let's Review

Crossword puzzle

Find the number names from 11 to 20.

Ans.

e	i	e	i	g	h	t	e	e	n	t
n	t	l	e	l	e	v	e	s	i	h
t	w	e	l	v	e	f	l	i	n	i
s	e	v	e	e	t	i	v	c	e	r
i	l	e	v	n	w	t	e	t	t	t
x	v	n	i	n	e	t	e	e	n	e
t	e	e	n	i	n	e	t	e	e	e
e	f	f	i	f	t	e	e	n	e	n
e	l	e	v	e	y	n	l	n	e	t
n	s	e	v	e	n	t	e	e	n	e
f	o	u	r	t	e	e	n	e	e	n

Find the names of the multiples of tens in this wordsearch.

Ans. →

S	E	V	N	T	Y	K	S	N
I	A	K	V	B	T	R	U	I
X	O	H	N	D	R	E	D	N
T	L	M	N	X	Z	Q	O	E
Y	P	B	Y	W	P	U	I	T
U	V	P	E	I	G	H	T	Y

Numbers from 21 to 30

Trace the numbers 21 to 30 and say the number names aloud:

Ans. Do it yourself.

Numbers from 31 to 40

Trace the numbers 31 to 40 and say the number names aloud:

Ans. Do it yourself.

Numbers from 41 to 50

Trace the numbers 41 to 50 and say the number names aloud:

Ans. Do it yourself.

Correct the spelling of the numbers names :

Ans.	Tewnty	**Twenty**	Tvelwe	**Twelve**
	Thirty-wot	**Thirty-two**	Tewnty-seevn	**Twenty seven**
	Forty-fvie	**Forty-five**	tyffi	**Fifty**
	sitxeen	**Sixteen**	tirhty	**Thirty**

Write the correct numbers in the blank boxes :

Ans.	3 tens	+	9 ones	=	**39**	2 tens	+	1 one	=	**21**
	2 tens	+	6 ones	=	**26**	4 tens	+	8 ones	=	**48**
	5 tens	+	0 ones	=	**50**	3 tens	+	7 ones	=	**37**
	2 tens	+	9 ones	=	**29**	4 tens	+	4 ones	=	**44**

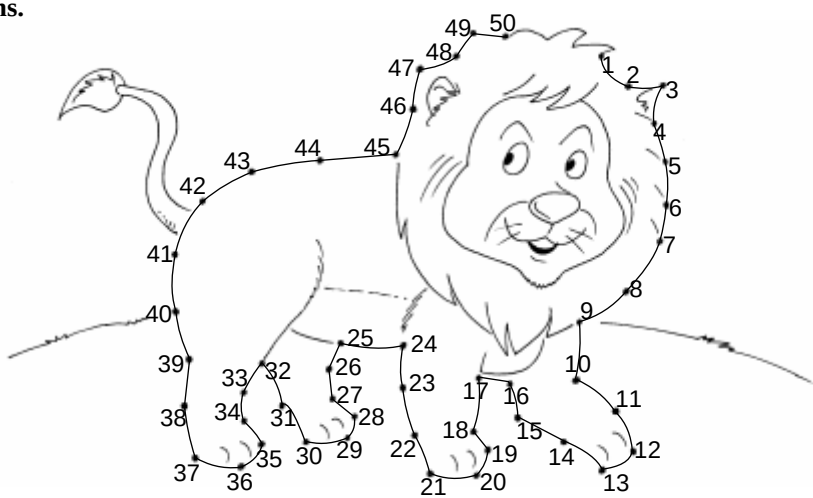
Write the number before, after or in between the given numbers.

	before		**after**		**in between**		
Ans.	**37**	38	32	**33**	27	**28**	29
	27	28	24	**25**	48	**49**	50
	34	35	19	**20**	36	**37**	38

PLAY TIME

Join the dots from 1 to 50. Complete the picture and fill some beautiful colours.

Ans.



Numbers from 51 to 60

Count and write the numbers and number names.

Ans.


5 tens and 1 one = 51 fifty-one


5 tens and 2 ones = 52 fifty-two


5 tens and 3 ones = 53 fifty-three


5 tens and 4 ones = 54 fifty-four


5 tens and 5 ones = 55 fifty-five


5 tens and 6 ones = 56 fifty-six


5 tens and 7 ones = 57 fifty-seven


5 tens and 8 ones = 58 fifty-eight


5 tens and 9 ones = 59 fifty-nine


5 tens and 10 ones = 60 sixty

Numbers from 61 to 70

Count and write the numbers and number names:

Ans.


6 tens and 1 one = 61 sixty-one


6 tens and 2 ones = 62 sixty-two


6 tens and 3 ones = 63 sixty-three

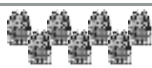
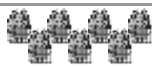
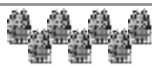

6 tens and 4 ones = 64 sixty-four

 6 tens	and	 5 ones	=	65	sixty-five
 6 tens	and	 6 ones	=	66	sixty-six
 6 tens	and	 7 ones	=	67	sixty-seven
 6 tens	and	 8 ones	=	68	sixty-eight
 6 tens	and	 9 ones	=	69	sixty-nine
 6 tens	and	 10 ones	=	70	seventy

Numbers from 71 to 80

Count and write the numbers and number names:

Ans.

 7 tens	and	1 one	=	71	seventy-one
 7 tens	and	2 ones	=	72	seventy-two
 7 tens	and	 3 ones	=	73	seventy-three
 7 tens	and	 4 ones	=	74	seventy-four
 7 tens	and	 5 ones	=	75	seventy-five
 7 tens	and	 6 ones	=	76	seventy-six
 7 tens	and	 7 ones	=	77	seventy-seven
 7 tens	and	 8 ones	=	78	seventy-eight
 7 tens	and	 9 ones	=	79	seventy-nine

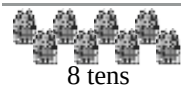

7 tens and 10 ones = 80 eighty

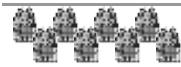
Numbers from 81 to 90

Count and write the numbers and number names:

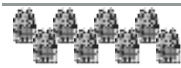
Ans.

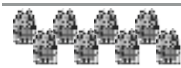

8 tens and 1 one = 81 eighty-one


8 tens and 2 ones = 82 eighty-two


8 tens and 3 ones = 83 eighty-three

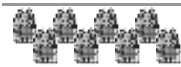

8 tens and 4 ones = 84 eighty-four


8 tens and 5 ones = 85 eighty-five


8 tens and 6 ones = 86 eighty-six


8 tens and 7 ones = 87 eighty-seven


8 tens and 8 ones = 88 eighty-eight


8 tens and 9 ones = 89 eighty-nine


8 tens and 10 ones = 90 ninety

Numbers from 91 to 100

Count and write the numbers and number names.

Ans.


9 tens and 1 one = 91 ninety-one


9 tens and 2 ones = 92 ninety-two


9 tens and 3 ones = 93 ninety-three


9 tens and 4 ones = 94 ninety-four


9 tens and 5 ones = 95 ninety-five


9 tens and 6 ones = 96 ninety-six


9 tens and 7 ones = 97 ninety-seven


9 tens and 8 ones = 98 ninety-eight


9 tens and 9 ones = 99 ninety-nine


9 tens and 10 ones = 100 hundred

Write the numerals of the following :

Ans.

Thirty-four	**34**	Seventy-one	**71**
Forty-three	**43**	Forty-two	**42**
Nineteen	**19**	Ninety-nine	**99**
Ninety-six	**96**	Fifty-four	**54**
Sixty-seven	**67**	Sixty	**60**

Comparison of Numbers

Put a tick (✓) on the smaller number in the box given below :

Ans.

27	51	38	40	24	21	12	52
✓		✓			✓	✓	

Put a tick (✓) on the bigger number in the box given below :

Ans.

32	14	11	40	44	90	59	35
✓			✓		✓	✓	

Put the correct sign >, < or = in the circle :

Ans.

73 = 73	62 > 49	81 > 70
90 > 80	19 = 19	44 < 70
76 > 47	40 > 39	94 > 49
68 < 86	21 < 32	76 > 67

Biggest and Smallest

Write the biggest number in the box :

Ans. (8) (17) (23) **23** (36) (43) (12) **43** (76) (80) (64) **80**

Write the biggest number in the box :

Ans. (41) (32) (22) **22** (15) (21) (8) **8** (67) (59) (38) **38**

Ascending and Descending order

Arrange the following in ascending order :

Ans.

60, 28	35	30, 96	**28**	**30**	**35**	**60**	**96**
27, 49	83	47, 67	**27**	**47**	**49**	**67**	**83**
90, 44	68	32, 71	**32**	**44**	**68**	**71**	**90**

Descending Order

Arrange the following in descending order :

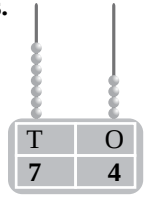
Ans.

56, 18	65	48, 84	**84**	**65**	**56**	**48**	**18**
40, 70	50	30, 60	**70**	**60**	**50**	**40**	**30**
13, 19	31	83, 93	**93**	**83**	**31**	**19**	**13**

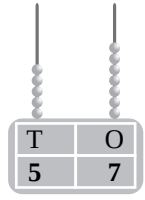
Numbers on Abacus

Write the number and number name as shown by the abacus.

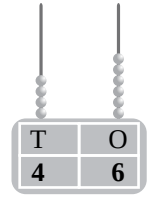
Ans.



Seventy-four



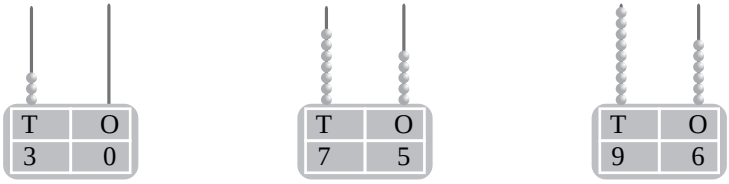
Fifty-four



Forty-six

Arrange the given numbers on the abacus.

Ans.



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. a.

More on Addition and Subtraction

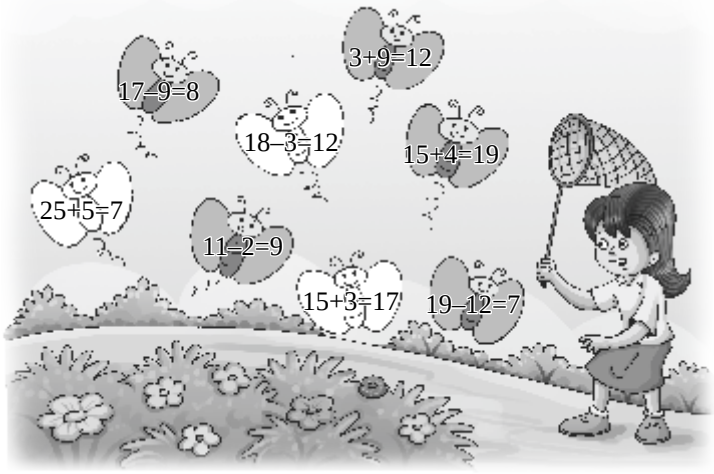
8

Let's Review

Maya wants to catch only those butterflies which have correct answers on them.

Colour the butterflies that Maya caught.

Ans.



Addition Without Regrouping

Add the following :

Ans.

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

Add the following :

Ans.

T	O
3	4
+ 3	3
6	**7**

T	O
4	2
+ 2	5
6	**7**

T	O
1	4
+ 6	3
7	**7**

T	O
2	4
+ 2	4
4	**8**

T	O
3	5
+ 4	4
7	**9**

T	O
3	6
+ 2	1
5	**7**

T	O
4	8
+ 1	1
5	**9**

T	O
2	2
+ 4	2
6	**4**

T	O
3	3
+ 5	5
8	**8**

T	O
3	5
+ 4	1
7	**6**

Addition with Regrouping

Ans.

T	O
4	14

5 tens 4 ones

T	O
2	17

3 tens 7 ones

T	O
5	18

6 tens 8 ones

T	O
3	17

4 tens 7 ones

T	O
3	13

4 tens 3 ones

T	O
6	14

7 tens 4 ones

T	O
1	18

2 tens 8 ones

T	O
5	11

6 tens 1 ones

T	O
7	17

8 tens 7 ones

Addition of two 2-digit numbers (with regrouping)

Add the following :

Ans.

T	O
①	
5	3
+ 2	9
8	2

T	O
①	
2	2
+ 4	9
7	1

T	O
①	
6	4
+ 1	8
8	2

T	O
①	
4	9
+ 4	1
9	0

T	O
①	
3	6
+ 3	8
7	4

T	O
①	
4	9
+ 3	8
8	7

T	O
①	
3	1
+ 5	9
9	0

T	O
①	
5	4
+ 3	9
9	3

T	O
①	
8	6
+ 1	5
10	1

T	O
①	
7	7
+ 1	4
9	1

Word Problems

Solve the following story problems :

Ans.

1. Rani has 16 red crayons and 25 blue crayons. How many crayons does she have in all?

Ans. Rani has 41 Crayons in all.

T	O
①	
1	6
+ 2	5
4	**1**

2. Kabir drew 35 pictures. His friend drew 29 pictures. How many pictures did they draw in all?

Ans. They drew 64 pictures in all.

	T	O
	①	
	3	5
+	2	9
	6	**4**

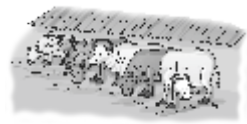
3. A fruit seller has 41 bananas and 25 apples. Find the total number of fruits.

Ans. Total fruits are 66.

	T	O
	○	
	4	1
+	2	5
	6	**6**

4. In a shed there are 38 brown cows and 53 white cows. How many cows are there in the shed altogether?

Ans. There are 91 cows in the shed.



	T	O
	①	
	3	8
+	5	3
	9	**1**

5. A man sold 15 red balloons and 32 green balloons. How many balloons did he sell in all?

Ans. The sold 47 balloons in all.

	T	O
	○	
	1	5
+	3	2
	4	**7**

Subtraction without regrouping

Subtract the following. One is done for you.

Ans.

T	O
7	8
–	8
7	**0**

T	O
3	4
–	4
3	**0**

T	O
7	5
–	4
7	**1**

T	O
5	3
–	3
5	**0**

T	O
1	6
–	5
1	**1**

T	O
8	7
–	5
8	**2**

T	O
4	6
–	2
4	**4**

T	O
5	3
–	1
5	**2**

T	O
9	1
–	1
9	**0**

T	O
6	4
–	3
6	**1**

Subtraction of 2-digit numbers

Subtract the following. One is done for you.

Ans.

T	O
3	7
– 2	2
1	**5**

T	O
7	8
– 6	1
1	**7**

T	O
2	7
– 1	4
1	**3**

T	O
7	4
– 3	3
4	**1**

T	O
3	3
– 1	1
2	**2**

T	O
2	7
– 1	2
1	**5**

T	O
7	8
– 4	3
3	**5**

T	O
2	9
– 1	4
1	**5**

T	O
7	7
– 3	2
4	**5**

T	O
9	6
– 2	4
7	**2**

T	O
2	7
– 2	4
0	**3**

T	O
4	8
– 1	0
3	**8**

T	O
1	8
– 1	5
0	**3**

T	O
5	7
– 1	5
4	**2**

T	O
7	5
– 3	2
4	**3**

T	O
9	0
– 7	0
2	**0**

T	O
7	8
– 2	5
5	**3**

T	O
3	5
– 2	3
1	**2**

T	O
6	5
– 4	4
2	**1**

T	O
5	2
– 3	2
2	**0**

Subtraction with regrouping

Regroup the following numbers by borrowing one ten from tens. One is done for you.

Ans. 82 = (8) tens + (2) ones = (7) tens + (12) ones

66 = (**6**) tens + (**6**) ones = (**5**) tens + (**16**) ones

52 = (**5**) tens + (**2**) ones = (**4**) tens + (**12**) ones

43 = (**4**) tens + (**3**) ones = (**3**) tens + (**13**) ones

Subtract the numbers :

Ans.

T	O
③	⑬
~~4~~	~~3~~
–	7
3	**6**

T	O
⑤	⑫
~~6~~	~~2~~
– 3	6
2	**6**

T	O
②	⑫
~~3~~	~~2~~
– 1	6
1	**6**

T	O
⑥	⑭
~~7~~	~~4~~
– 4	8
2	**6**

T	O
⑧	⑩
~~9~~	~~0~~
– 7	3
1	**7**

T	O
⑧	⑬
~~9~~	~~3~~
– 5	4
3	**9**

T	O
⑦	⑮
~~8~~	~~5~~
– 4	6
3	**9**

T	O
②	⑱
~~3~~	~~8~~
– 1	9
1	**9**

T	O
⑧	⑩
~~9~~	~~0~~
– 4	5
4	**5**

T	O
③	⑭
~~4~~	~~4~~
– 2	5
1	**9**

T	O
⑦	⑪
~~8~~	~~1~~
– 5	3
2	**8**

T	O
⑧	⑩
~~9~~	~~0~~
– 2	6
6	**4**

T	O
⑦	⑮
~~8~~	~~5~~
– 3	6
4	**9**

T	O
④	⑭
~~5~~	~~4~~
– 2	5
2	**9**

T	O
⑥	⑭
~~7~~	~~4~~
– 5	8
1	**6**

T	O
⑥	⑫
~~7~~	~~2~~
– 2	4
4	**8**

T	O
④	⑩
~~5~~	~~0~~
– 3	8
1	**2**

T	O
⑤	⑫
~~6~~	~~2~~
– 1	9
4	**3**

T	O
⑧	⑩
~~9~~	~~0~~
– 5	9
3	**1**

T	O
③	⑰
~~4~~	~~7~~
– 2	9
1	**8**

T	O
⑤	⑫
~~6~~	~~2~~
– 3	4
2	**8**

T	O
④	⑰
~~5~~	~~7~~
– 3	9
1	**8**

T	O
②	⑫
~~3~~	~~2~~
–	9
2	**3**

T	O
⑦	⑯
~~8~~	~~6~~
– 5	7
2	**9**

T	O
③	⑪
~~4~~	~~1~~
– 2	6
1	**5**

Word Problems

Solve the following story problems :

Ans.

1. There were 55 passengers in a bus. 32 got down at bus stop. How many passengers are left in the bus?

Ans. 23 Passengers are left in the bus.

	T	O
	○	○
	5	5
–	3	2
	2	**3**

2. A balloon seller had 46 balloons. He sold 27 of them. How many balloons are left?

Ans. 19 balloons are left.

	T	O
	③	⑯
	4	6
–	2	7
	1	**9**

3. 84 students went on a picnic. Of them, 33 were boys. How many girls went on the picnic?

Ans. 51 girls went on the picnic.

	T	O
	○	○
	8	4
–	3	3
	5	**1**

4. There are 57 books on the shelf. Rohit took 15 books to read. How many books are left on the shelf?

Ans. 42 books are left on the shelf.

	T	O
	○	○
	5	7
–	1	5
	4	**2**

5. In a match Rohit made 78 runs and Dhawan made 57 runs. How many runs did Rohit make more than Dhawan?

Ans. 21 runs Rohit made more than Dhawan.

	T	O
	○	○
	7	8
–	5	7
	2	**1**

6. A book contains 80 pages. Riddhi reads 57 pages. How many pages has she to read?

Ans. She has 23 pages to read.

	T	O
	⑦	⑩
	8	0
–	5	7
	2	**3**

PLAY TIME

Today is Jiya's birthday. Read the story and find the answer.

Ans. 1. 12 friends will come more.

	T	O
	○	○
	2	8
–	1	6
	1	**2**

2. Mummy my made 36 eatables in all.

	T	O
	①	○
	1	2
		8
+	1	6
	3	**6**

3. Father is 32 years elder than Jiya.

	T	O
	③	⑩
	4	0
–		8
	3	**2**

4. Jiya got ` 75 in all.

	T	O
	○	○
	~~5~~	~~0~~
+	2	5
	7	**5**

Let's Review

Concept of Multiplication

Fill in the boxes :

Ans.

4 + 4 + 4 = 3 × 4 = 12

3 + 3 + 3 + 3 = 4 × 3 = 12

5 + 5 + 5 + 5 + 5 = 5 × 5 = 25

Multiplication Tables

Write the product :

Ans.

3 fours = 12 3 × 4 = 12	4 fours = 16 4 × 4 = 16	5 twos = 10 5 × 2 = 10
1 one = 1 1 × 1 = 1	3 threes = 9 3 × 3 = 9	2 fives = 10 2 × 5 = 10

Write the product of the following:

Ans.

2 × 5 = 10	6 × 2 = 12	4 × 4 = 16
9 × 3 = 27	7 × 4 = 28	10 × 5 = 50
8 × 2 = 16	5 × 5 = 25	3 × 7 = 21
7 × 5 = 35	6 × 3 = 18	4 × 4 = 16

Vertical Multiplication

Multiply :

Ans.

7 × 3 **2 1**	4 × 3 **1 2**	6 × 7 **4 2**	3 × 3 **9**	4 × 5 **2 0**	7 × 0 **0**
9 × 3 **2 7**	6 × 8 **4 8**	4 × 7 **2 8**	5 × 3 **1 5**	7 × 5 **3 5**	4 × 4 **1 6**

6 × 3 = **18**	6 × 6 = **36**	2 × 3 = **6**	2 × 2 = **4**	4 × 2 = **8**	9 × 3 = **27**
9 × 1 = **9**	5 × 1 = **5**	5 × 5 = **25**	3 × 1 = **3**	7 × 2 = **14**	7 × 4 = **28**

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. c.

Division

10

Let's Review

Division as Equal Distribution

Divide by repeated subtraction :

Ans.

20 ÷ 5
20 – 5 = 15 (1)
15 – 5 = 10 (2)
10 – 5 = 5 (3)
5 – 5 = 0 (4)
\ 20 ÷ 5 = 4

4 ÷ 2
4 – 2 = 2 (1)
2 – 2 = 0 (2)
\ 4 ÷ 2 = 2

6 ÷ 2
6 – 2 = 4 (1)
4 – 2 = 2 (2)
2 – 2 = 0 (3)
\ 6 ÷ 2 = 3

10 ÷ 5
10 – 5 = 5 (1)
5 – 5 = 0 (2)
\ 10 ÷ 5 = 2

12 ÷ 3
12 – 3 = 9 (1)
9 – 3 = 6 (2)
6 – 3 = 3 (3)
3 – 3 = 0 (4)
\ 12 ÷ 3 = 4

18 ÷ 6
18 – 6 = 12 (1)
12 – 6 = 6 (2)
6 – 6 = 0 (3)
\ 18 ÷ 6 = 3

Division as Making Equal Sets

Divide 12 oranges into 4 children.

Ans.

12 ÷ 4
= (3)

So, each child gets **3** oranges.

Divide 18 pencils into 6 boxes.

18 ÷ 6
= (3)

So, there are **3** pencils in each box.

Divide 25 toffees into 5 packets.

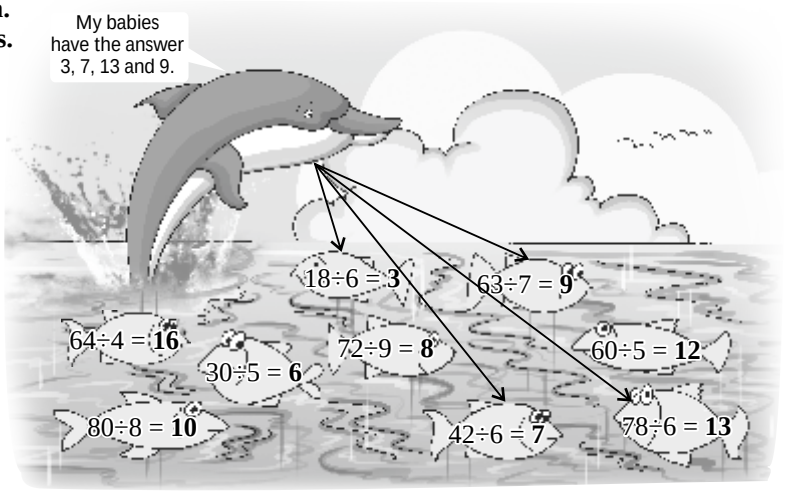
25 ÷ 5
= 5

So, there are **5** toffees in each packet.

PLAY TIME

Solve the division sums on the small fish. Match the baby fish with its mother fish.

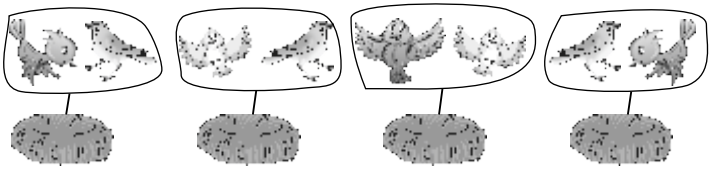
Ans.



Think And Do

Take 8 birds to 4 nests so that there are an equal number of birds on each nest.

Ans.



There are **2** birds on each nest.

Money

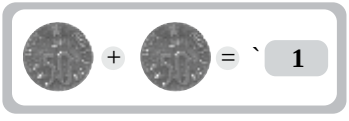
11

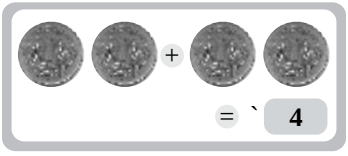
Let's Review

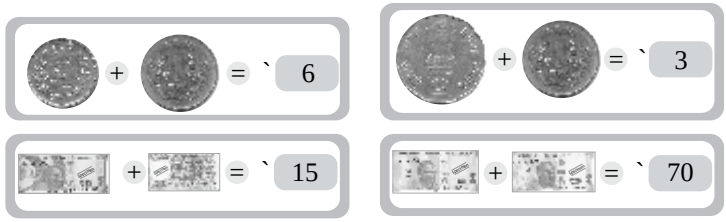
Counting Money

Count and write how much money.

Ans.

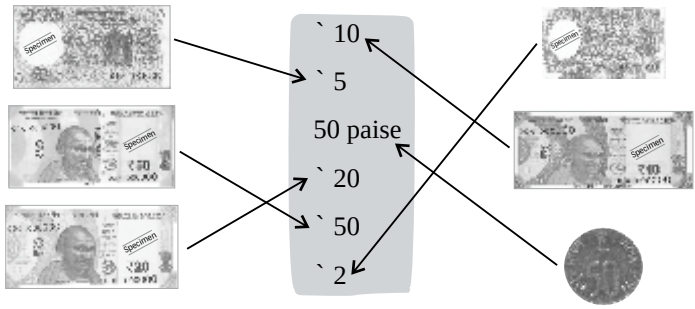






Match the coins/notes to the value:

Ans.

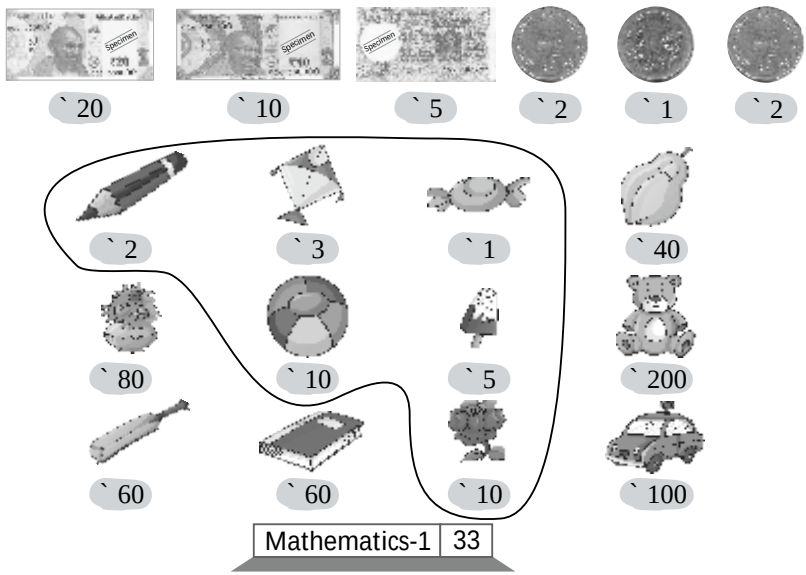


Write the amount of money with each child:

Ans.

Circle the maximum number of articles you can buy in 40 rupees.

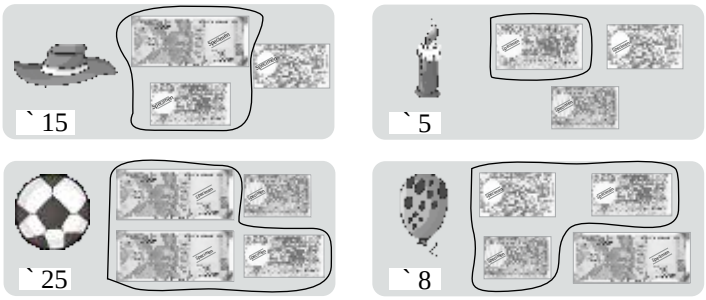
Ans.



Think And Do

Circle the notes which will equal the price for each object.

Ans.



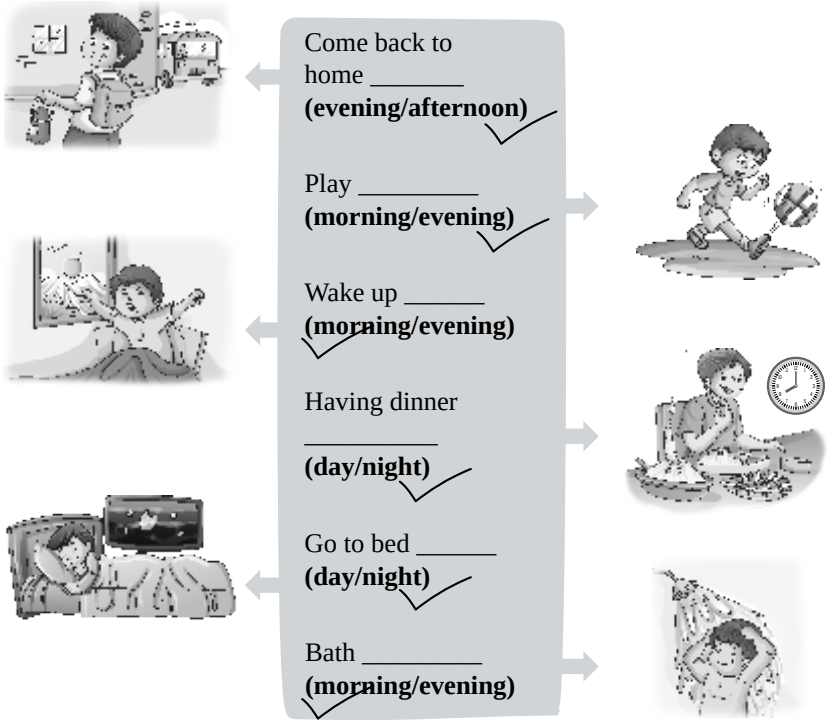
Time and Calendar

12

Let's Review

The following pictures show the daily activities of Tom. Tick (3) the correct word for the given activity.

Ans.



Reading Time

Read and write the time :

Ans.

11 O'clock

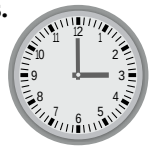
8 O'clock

3 O'clock

9 O'clock

Draw the hour hand to show the time :

Ans.



3 : 00

2 : 00

11 : 00

8 : 00

Draw both the hands to show the given time.

Ans.

2:00

8:00

5:00

3:00

Days of The Week

Write 'T' for True and 'F' for False :

Ans. Sunday is the first day of the week. **F**
Saturday is the second day of the week. **F**
Friday comes just after Thursday. **T**
Thursday is in the middle of the week. **T**

Write the days of a week in reverse order starting from Sunday:

Ans. 1. Sunday 2. Saturday 3. Friday 4. Thursday
5. Wednesday 6. Tuesday 7. Monday

Project

Ans. Do it yourself.

Months of the Year

Fill in the blanks :

Ans.
1. Mach has **31** days.
2. A year has **12** months.
3. Leap year comes every **Fourth** year.
4. June comes after **May**.
5. **August** is the eighth month of the year.
6. **January** is the first month of the year.
7. **December** is the last month of the year.

8. A leap year has **366** days.
9. July comes in between **June** and **August**.

Think And Do

Find the name of the day which we celebrate on that following dates.

Ans.

8th March	**Women's Day**
15th August	**Independence day**
26th January	**Republic day**
5th June	**Environment day**
25th December	**Christmas day**

Higher Order Thinking skills

Ans. She bed at 10 : 00 p.m.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. a. 4. b.

PLAY TIME

Help Rony to find the months of the year in the words search.

Ans.

J	A	N	U	A	R	Y	A	N	G	J	T	M	T	L
P	A	G	N	P	I	K	A	D	A	U	G	U	S	T
I	T	M	S	R	O	S	E	E	P	L	T	M	B	R
P	Q	R	S	I	M	A	R	C	H	Y	T	U	V	R
N	O	V	E	L	A	B	E	E	R	S	J	K	L	M
I	F	P	Q	S	Y	M	N	M	O	E	O	T	S	T
W	E	D	N	E	S	A	D	B	S	P	C	S	S	S
M	B	N	S	D	A	S	Y	E	X	T	T	X	W	N
H	R	Y	J	U	N	E	O	R	M	O	O	M	S	I
G	U	E	Y	C	U	P	T	T	T	B	B	X	X	P
D	A	T	U	X	T	T	R	M	K	E	E	I	O	P
C	R	S	N	O	V	E	M	B	E	R	R	A	Y	I
J	Y	N	E	Y	C	M	U	O	I	Y	Z	P	O	P
S	A	T	U	R	D	B	Y	A	K	M	T	R	X	S
T	H	U	S	R	D	E	Y	O	P	M	A	R	T	C
J	U	M	E	J	X	R	B	R	E	R	S	J	A	N

Measurement

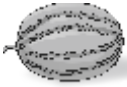
13

Let's Review

Tick (3) the appropriate option :

Ans.

100g/100 kg ✓



500g/5kg ✓

15m/15cm ✓

1m/1km ✓

100mL/1L ✓

20L/200L ✓

Measuring Length Using Objects

How long are these?

Ans. 

The torch is about **5** Matchsticks long. This spoon is about **3** crayons long.

Using Body Parts to Measure Length

Measure the following objects using body parts. Use actual objects:

Ans. My Mathematics book is ☐ handspans long.  **Do it yourself**

My room is ☐ footspans long.  **Do it yourself**

The door in our classroom is ☐ cubits long.  **Do it yourself**

My pencil is ☐ digits long.  **Do it yourself**

The school garden is ☐ paces long.  **Do it yourself**

Finding Weight

Look at the balances and fill in the blanks.

Ans. Four books weigh the same as **1** brick.

The water bottle weighs the as **5** blocks.

A brinjal weighs the same as **3** carrots.

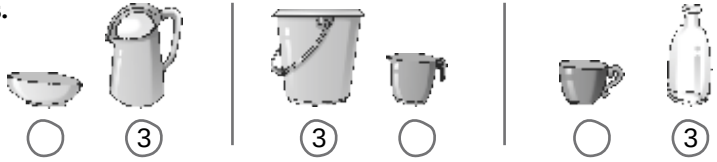
3 mangoes weigh the same as **2** block.

A TV weighs the same as **5** bricks.

Comparing Capacities

Tick (3) the vessel which contains more water:

Ans.



( ) (3) (3) ( ) ( ) (3)

Fill in the blanks.

Ans.

The jug can hold __4__ glasses of water.

The water bottle can hold __2__ glasses of water.

So, the capacity of the jug is **more** than that of the water bottle.

The tub can hold __15__ mugs of water.

The bucket can hold __8__ mugs of water.

So, the capacity of the tub is **more** than that of the bucket.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. b. 4. c.

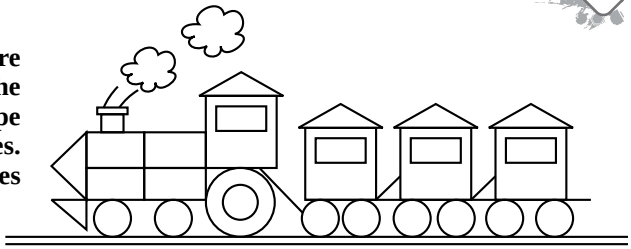
Shapes and Patterns

14

Let's Review

Look at the picture given below. Count the number of each shape and fill in the boxes. Also, colour the shapes as asked.

Ans. →



Circles **10** Squares **5** Triangles **8** Rectangles **9**

Plane Shapes

Name the shapes of the following things:

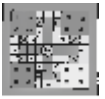
Ans.


Rectangle


Circle


Square

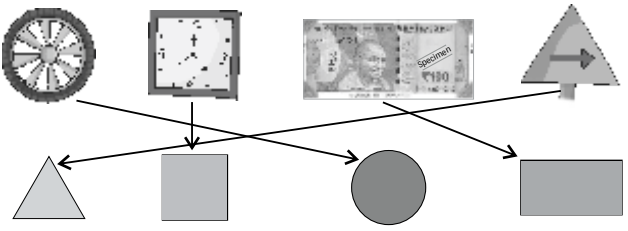

Circle


Square


Rectangle

Match the following objects with their corresponding shapes :

Ans.



Think And Do

Fill in the blanks.

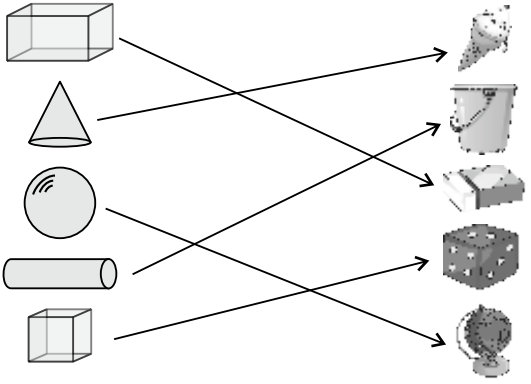
Ans.

1. Each of my faces is a square.
   I am a **cube**.
2. Each of my faces is a rectangle.
   I am a **cuboid**.
3. Children love to eat ice cream in me.
   I am a **cone**.
4. I am like a ball.
   I am a **Shpere**.
5. A dice is a **Cube**.

Solid Shapes

Match the shapes with the objects :

Ans.



Project

Draw the three things of given shapes form your surroundings.

Ans.

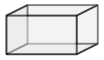
Cube

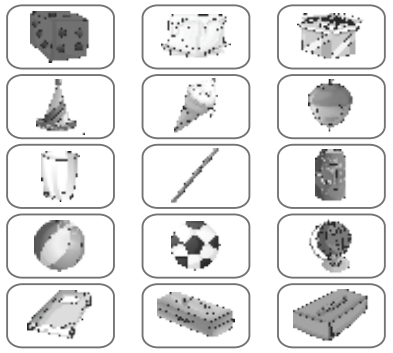
Cone

Cylinder

Sphere

Cuboid





Rolling and Sliding

Ans.

The child is sliding on the slide.

Does his whole body touch the slide?

Tick (3) the correct answer.

Yes ☐ No ☑ 3

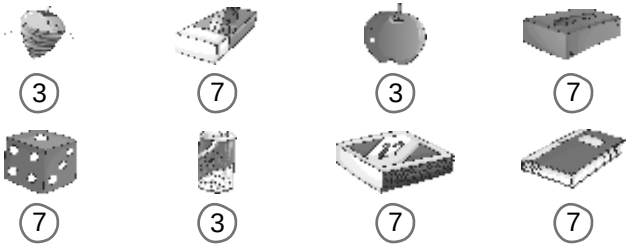
This man is pushing the roller. The roller is rolling on the ground. Does the whole surface of the roller touch the ground during its movement?

Tick (3) the correct answer.

Yes ☐ No ☑ 3

Tick (3) the objects which can roll and cross (7) the ones which can slide:

Ans.



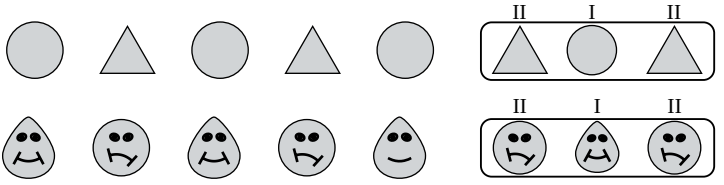
3 7 3 7

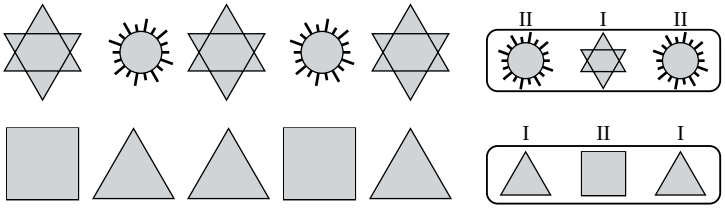
7 3 7 7

Patterns

Observe and complete the following patterns of shapes :

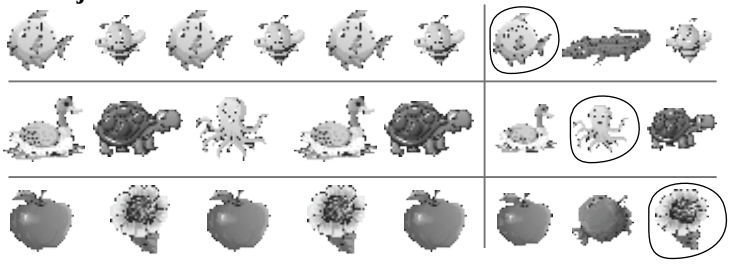
Ans.





Circle the object that comes next :

Ans.



Numbers Patterns

Ob serve and complete the pattern of numbers :

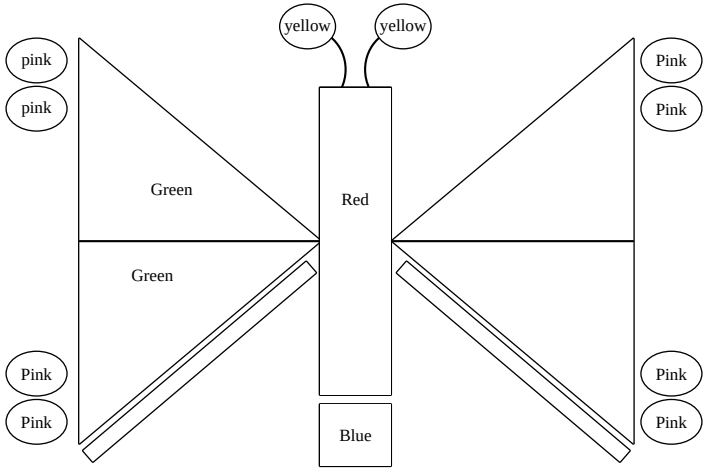
Ans.

2	4	6	**8**	**10**	**12**
7	10	13	**16**	**19**	**22**
5	9	13	**17**	**21**	**25**
20	18	16	**14**	**12**	**10**

Numbers Patterns

Colour the rectangle red, the square blue, the triangle green, the circle pink and the ovals yellow in the given figure.

Ans.



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. c. 3. c.

Data Handling

15

Let's Review

Look at the picture and fill in the boxes.

Animal count

Ans.

5 4 2 1 3

Study the pictures and answer the questions given below:

Count and write:

Ans.

How many  ? 6

How many  ? 8

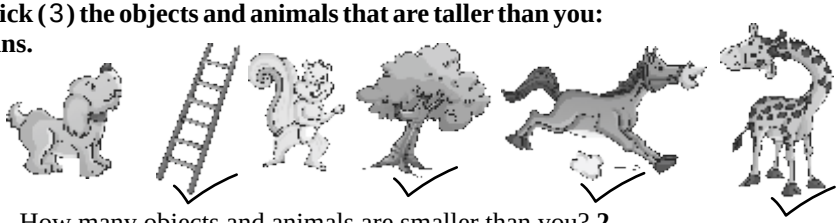
How many  ? 10

How many  ? 13

Think And Do

Tick (3) the objects and animals that are taller than you:

Ans.

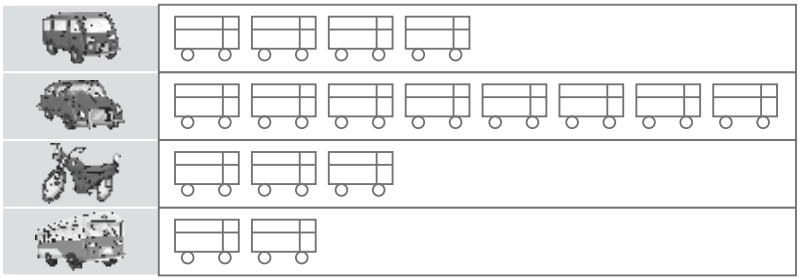


How many objects and animals are smaller than you? **2**

Look at the picture of a parking shown below.

Now fill in the table by using  **for 1 vehicle:**

Ans.



Now answer the following questions:

Ans. a. How many more cars are there than bus? **6**

b. How many vehicle in all? **17**

PLAY TIME

Look at the scene
Colour the box with correct answer.

Ans.

How many ducks are there?	4	8	7
How many hens are there?	2	3	4
How many more sheep are there than hens?	3	4	5
How many animals are there in all?	20	21	19

Project

Let us find out how students in your class come to school. Note in the table, then answer the questions given below:

Ans.

Different Modes				
Number of Students	7	4	1	0

- Which mode of transport is used by maximum number of students? **Bus**
- Which mode of transport is used by minimum number of students? **Cycle**

2-Digit Numbers

1

Let's Review

The scoreboard shows the runs scored by team A against team B.

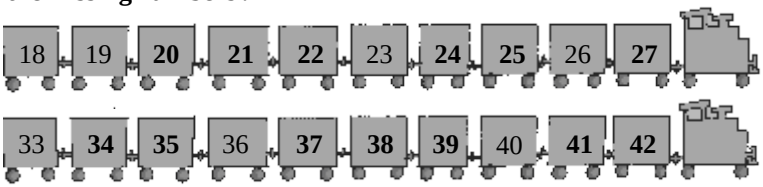
Ans. Who scored most runs? **Sandeep**
Who scored least runs? **Neeraj**

Arrange the runs in descending order.

Ans. (70) (44) (35) (20) (14) (07)

Fill in the missing numbers :

Ans.



Exercise 1.1

1. Say and write the number and number names.

Ans.

a. 2 tens + 3 ones = T O / 2 3 — **twenty-three**

b. 5 tens + 2 ones = T O / 5 2 — **fifty-two**

c. 6 tens + 7 ones = T O / 6 7 — **sixty-seven**

d. 3 tens + 3 ones = T O / 3 3 — **thirty-three**

2. Fill in the table :

Ans.

S.No.	Number name	Number
a.	sixty-five	65
b.	seventy-eight	78
c.	forty-eight	48
d.	ninety-six	96
e.	twenty-five	25
f.	fifty-nine	59

3. Write the number that comes before.

Ans.

a. 68 69 b. 16 17 c. 89 90

d. 9 10 e. 33 34 f. 49 50

4. Write the number that comes after.

Ans.

a. 31 32 b. 19 20 c. 71 72

d. 75 76 e. 69 70 f. 98 99

5. Write the number that comes in between.

Ans.

a. 81 82 83 b. 79 80 81 c. 12 13 14

d. 25 26 27 e. 64 65 66 f. 96 97 98

Place Value

Think And Do

Write the place value of.

Ans.

4 in 94	**4**	8 in 18	**8**
1 in 19	**10**	6 in 65	**60**
3 in 43	**3**	0 in 10	**0**

Exercise 1.2

1. Write the place value of each digit. One has been done for you.

Ans.

a. 2 7 → **7**, **20**

b. 4 4 → **4**, **40**

c. 7 2 → **2**, **70**

d. **9 7** → **7**, **90**

e. **3 0** → **0**, **30**

f. **0 8** → **8**, **0**

2. Write the number.

Ans. a. 25 → 5, 20

b. 86 → 6, 80

c. 52 → 2, 50

d. 30 → 0, 30

e. 46 → 6, 40

f. 20 → 0, 20

3. Write down the numeral for each sum.

Ans. a. 50 + 7 = 57

b. 70 + 2 = 72

c. 20 + 5 = 25

d. 40 + 4 = 44

e. 70 + 7 = 77

f. 80 + 8 = 88

Exercise 1.3

1. Write the numbers shown by the beads on the abacus :

Ans. a. T O — 7 5

b. T O — 9 4

c. T O — 7 0

d. T O — 1 1

e. T O — 5 9

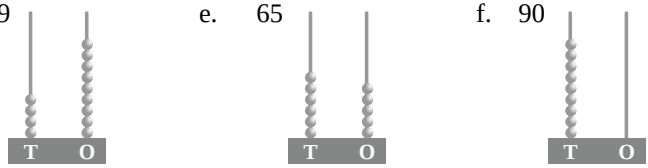
f. T O — 2 3

2. Draw the correct number of beads on the abacus :

Ans. a. 49

e. 65

f. 90



Exercise 1.4

1. Compare and put <, > or = in the box :

Ans. a. 39 < 51

b. 46 < 65

c. 34 < 91

2. Colour green the teddy hour with the greater number.

Ans. a. 90 ■ 92 b. 49 ■ 45 c. 18 ■ 12

3. Tick (3) the smallest number and cross (7) the greatest number.

Ans. a. 34 7 10 3 15 b. 69 7 17 3 24

c. 20 3 27 40 7 d. 11 12 7 10 3

4. Write the numbers in increasing order.

Ans. a. 72, 76, 71, 80 — 71 72 76 80
b. 18, 96, 69, 98 — 18 69 96 98
c. 41, 28, 31, 10 — 10 28 31 41
d. 65, 45, 75, 74 — 45 65 74 75
e. 19, 10, 50, 97 — 10 19 50 97
f. 76, 86, 68, 10 — 10 68 76 86

5. Write the numbers in decreasing order.

Ans. a. 44, 18, 74, 80 — 80 74 44 18
b. 20, 34, 31, 38 — 38 34 31 20
c. 64, 35, 20, 54 — 64 54 35 20
d. 88, 79, 97, 17 — 97 88 79 17
e. 79, 69, 50, 85 — 85 79 69 50
f. 20, 99, 19, 87 — 99 87 20 19

Exercise 1.5

1. Write even or odd by pairing.

Ans.

a.		= 6	apples	even
b.		= 5	books	odd
c.		= 10	watches	even
d.		= 8	birds	even
e.		= 7	ice-creams	odd

B. Write even or odd.

Ans.

a.	10	Even	b.	83	Odd	c.	34	Even
d.	60	Even	e.	12	Even	f.	35	Odd
g.	29	Odd	h.	70	Even	i.	61	Odd

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

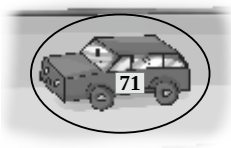
Ans. 1. c. 2. a. 3. a. 4. c.

Higher Order Thinking Skills

Ans. Do it yourself.

PLAY TIME

Ans. a. Rakh's house. b. 18 = 8 + 10 c. Third shop

d. 

Ordinal Numbers

Let's Review

Maths and Science together.

Ans.

Earth	Venus	Mercury	Mars	Saturn	Neptune	Uranus	Jupiter
Third	Second	First	Fourth	Sixth	Eighth	Seventh	Fifth

Exercise 2.1

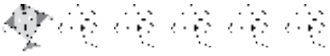
1. Write the position of each animal in the race held at Jungle.

Ans. Rabbit **Second** Elephant **Third**
Turtle **Fourth** Tiger **First**

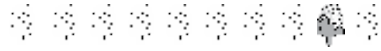
2. Colour the object for the given ordinal number.

Ans. Third from the left :

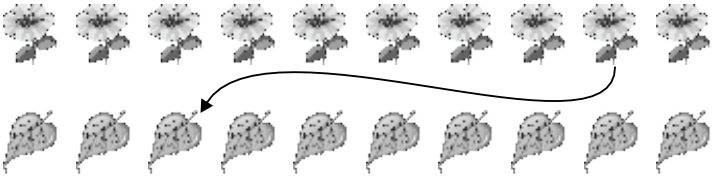
Sixth from the right :



Ninth from the left :



3. Join the ninth  to the third  .



Exercise 2.2

1. Arrange the numbers in ascending order.

Ans. a. 18, 46, 75, 28, 82

18	28	46	76	82

b. 78, 99, 08, 14, 02

02	08	14	78	99

c. 13, 29, 49, 60, 51

13	29	49	51	60

2. Arrange the numbers in descending order.

Ans. a. 13, 16, 14, 18, 11

18	16	14	13	11

b. 12, 10, 75, 13, 14

75	14	13	12	10

c. 89, 48, 21, 82, 39

89	82	48	39	21

PLAY TIME

Write the position of each child in the spoon race held at school.

Ans.

Parth	**Third**	Kajal	**Second**
Ranu	**Fourth**	Devesh	**first**

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. c. 3. a.

Higher Order Thinking skills

Ans. TENDULKAR

3-Digit Numbers

3

Let's Review

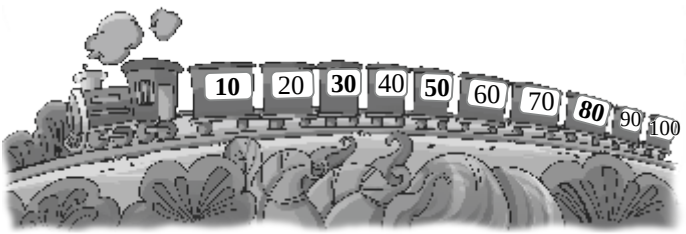
1. Write the missing numbers on the grid.

Ans.

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

2. Complete the pattern.

Ans.



3. Now, write the number names.

Ans.

333 Three hundred thirty-three	357 Three hundred fifty-seven	369 Three hundred sixty nine
398 Three hundred ninety-eight	375 Three hundred seventy-five	345 Three hundred forty-five

Higher Order Thinking skills

Ans. I am 421.

Think And Do

Fill in the blank boxes.

Ans.

1.	**268** = 2 hundreds + 6 tens + 8 ones	Two hundred sixty-eight
2.	978 = **9** hundreds + **7** tens + **8** ones	Nine hundred seventy-eight
3.	475 = 4 hundreds + 7 tens + 5 ones	**Four hundred seventy-five**
4.	**623** = 6 hundreds + 2 tens + 3 ones	Six hundred twenty-three
5.	852 = 8 hundreds + 5 tens + 2 ones	**Eight hundred fifty-two**
6.	509 = **5** hundreds + **0** tens + **9** ones	Five hundred -nine

Exercise 3.1

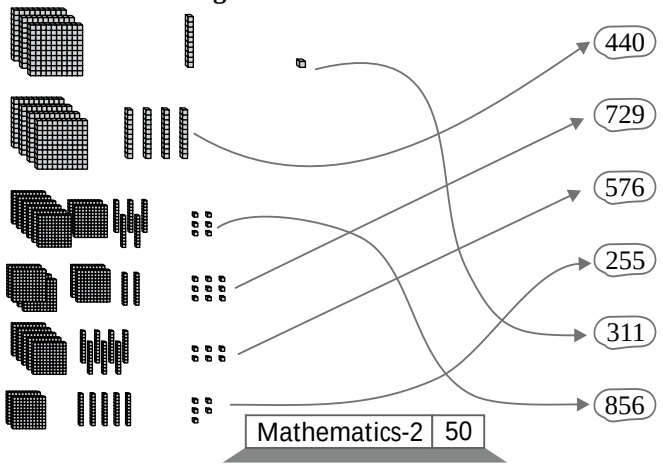
1. Write the number name.

Ans.

a. 565 Five hundred sixty five
b. 761 Seven hundred sixty one
c. 345 Three hundred forty five
d. 609 Six hundred nine
e. 499 Four hundred ninety nine
f. 912 Nine hundred twelve

2. Match the following.

Ans.



3. Numbers from 901 to 1000.

Ans.

901	902	903	904	905	906	907	908	909	910
911	912	913	914	915	916	**917**	918	919	920
921	922	923	**924**	925	926	927	928	929	930
931	932	933	934	935	936	937	**938**	939	940
941	942	943	944	945	**946**	947	948	949	950
951	**952**	953	954	955	956	957	958	959	960
961	962	963	**964**	965	966	967	**968**	969	970
971	972	973	974	975	976	977	978	979	980
981	982	983	984	985	986	987	988	989	**990**
991	992	993	994	**995**	996	997	998	999	1000

Think And Do

1. 10 more than

Ans. 853 is **863**
740 is **750**

2. 10 less than

920 is **910**
672 is **662**

3. 100 more than

Ans. 609 is **709**
252 is **352**

4. 100 less than

206 is **106**
158 is **58**

Exercise 3.2

1. Write the place value of each digit in the circle.

Ans. a. 8 5 1 → 1, 50, 800

b. 7 0 6 → 6, 0, 700

c. 8 7 5 → 5, 70, 800

2. Write in expanded form.

Ans. a. 792 = 700 + 90 + 2

b. 247 = 200 + 40 + 7

c. 618 = 600 + 10 + 8

d. 864 = 800 + 60 + 4

3. Write the short form.

a. 300 + 80 + 9 = 389

b. 900 + 10 + 9 = 919

c. 100 + 20 + 0 = 120

d. 600 + 50 + 4 = 654

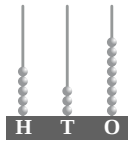
4. Write the place value and face value of the underline digits.

	Place value	Face value
a. 4̲37	400	4
b. 54̲5	5	5
c. 5̲51	500	5
d. 9̲30	900	9

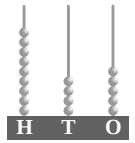
Exercise 3.3

1. Look at the abacus and write the number.

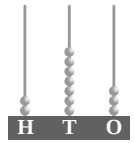
Ans. a.



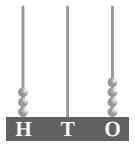
b.



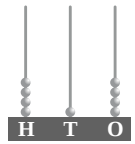
c.



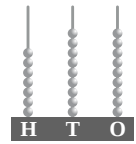
d.



e.

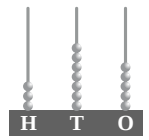


f.

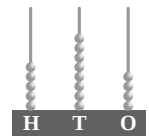


2. Draw beads on the abacus to represent the numbers.

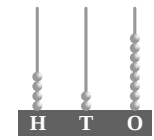
Ans. a.



b.



c.



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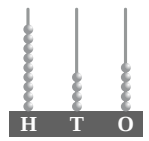

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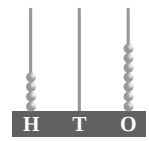

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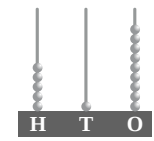


Order of Numbers

Ascending order

Arrange 642, 666, 231, 981, 578 in ascending order.

Ans. 231 578 642 666 981

Descending order

Arrange 773, 150, 50, 684, 298 in descending order.

Ans. 773 684 298 150 50

Exercise 3.4

1. Put the correct sign >, < or =.

Ans. 1. 632 > 328 2. 457 < 477 3. 622 < 632

4. 708 = 708 5. 899 < 989 6. 241 > 226

2. Colour the circle with greatest number red and with smallest number green.

Ans. a. 635 543 298 736 563

298 — green; 736 — red

b. 758 (Red) 752 756 721 (green) 750

c. 206 234 219 201 (green) 291 (red)

d. 998 (Red) 996 990 991 909 (green)

e. 420 451 475 (Red) 374 (green) 390

f. 325 256 (green) 410 561 640 (Red)

3. Arrange in ascending order.

Ans. a. 568, 560, 462, 465 — 462, 465, 560, 568.

b. 295, 298, 442, 448 — 295, 298, 442, 448.

c. 810, 832, 715, 428 — 428, 715, 810, 832.

d. 502, 491, 406, 494 — 406, 491, 494, 502.

4. Arrange in descending order.

Ans. a. 391, 398, 390, 396 — 398, 396, 391, 390.

b. 395, 417, 741, 391 — 391, 395, 417, 741.

c. 987, 897, 978, 798 — 798, 897, 978, 987.

d. 725, 609, 204, 722 — 204, 609, 722, 725.

PLAY TIME

Match the numbers and their names by colouring them alike.

Ans.

546	Seven hundred eight	211	Six hundred ninety-five
Red	**Yellow**	**Green**	**Orange**
Two hundred eleven	708	310	695
Green	**Yellow**	**Blue**	**Orange**
Three hundred ten	333	Three hundred thirty-three	Five hundred forty-six
Blue	**Pink**	**Pink**	**Red**

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. b. 3. a. 4. b. 5. a.

Let's Review

In a Town Fair

Write 'T' for tall and 'S' for short in the circles.

Ans. There are 23 girls and 33 boys. How many children are there?

	23	girls
+	33	boys
	56	children

A balloon seller has 40 blue balloons, 20 red balloons. How many does he have in all?

	40	blue
+	20	red
	60	balloons

A toy car costs `20 and a balloon costs `10. How much does Rahul pay for both?

	` 20	
+	` 10	
	` 30	

8 children are eating chocolates and 11 children are eating ice-creams. How many children are eating both the items?

	20	children
+	10	children
	30	children

Exercise 4.1

1. Add :

Ans. a.

T	O
6	6
+ 2	1
8	7

b.

T	O
5	7
+ 2	1
7	8

c.

T	O
1	9
+ 2	0
3	9

d.

T	O
4	6
+ 3	3
7	9

T	O
8	1
+ 1	8
9	9

T	O
3	1
+ 5	5
8	6

T	O
5	5
+ 3	2
8	7

T	O
6	2
+ 3	2
9	4

Exercise 4.2

1. Complete the following on the basis of addition facts.

Ans. a. $56 + 0 = \boxed{56}$ b. $84 + 1 = \boxed{85}$ c. $99 + 0 = \boxed{99}$

d. $39 + 1 = \boxed{40}$ e. $23 + 1 = \boxed{24}$ f. $45 + 0 = \boxed{45}$

2. Fill in the box with suitable number :

Ans. a. $19 + 9 = 9 + \boxed{19}$ b. $31 + 62 = 62 + \boxed{31}$

c. $14 + 5 = 5 + \boxed{14}$ d. $60 + 18 + 19 = 18 + 19 + \boxed{60}$

e. $23 + 2 = 2 + \boxed{23}$ f. $12 + 14 = 14 + \boxed{12}$

Exercise 4.3

Find the sum.

Ans. a.

H	T	O
9	1	0
+	8	5
9	9	5

b.

H	T	O
8	1	1
+ 1	2	1
9	3	2

c.

H	T	O
2	7	0
+ 4	2	6
6	9	6

d.

H	T	O
3	4	6
+ 4	1	3
7	5	9

e.

H	T	O
1	1	1
+ 3	4	5
4	5	6

f.

H	T	O
	3	0
+ 6	5	8
6	8	8

g.

H	T	O
1	2	4
+ 7	7	0
8	9	4

h.

H	T	O
4	4	1
+ 2	1	8
6	5	9

i.

H	T	O
2	3	6
+ 3	1	1
5	4	7

j.

H	T	O
1	0	5
+ 5	0	1
6	0	6

Exercise 4.4

1. Regroup the following :

Ans. a. 7 tens 16 ones = 8 tens 6 ones

b. 8 tens 12 ones = 9 tens 2 ones

c. 5 tens 15 ones = 6 tens 5 ones

d. 4 tens 18 ones = 5 tens 8 ones

2. Find the sum :

Ans. a.

	T	O
	(1)	
	4	3
+	1	8
	6	1

b.

	T	O
	(1)	
	6	7
+	2	9
	9	6

c.

	T	O
	(1)	
	4	5
+	1	6
	6	1

d.

	T	O
	(1)	
	3	5
+	1	8
	5	3

e.

	T	O
	(1)	
	3	5
+	4	6
	8	1

f.

	T	O
	(1)	
	1	6
+	2	8
	4	4

g.

	T	O
	(1)	
	5	8
+	2	9
	8	7

h.

	T	O
	(1)	
	2	4
+	3	8
	6	2

i.

	T	O
	(1)	
	4	4
+	1	8
	6	2

j.

	T	O
	(1)	
	3	1
+	3	9
	7	0

Exercise 4.5

Add the following :

Ans. a.

	T	O
	(1)	
	2	6
	2	5
+	2	7
	7	8

b.

	T	O
	(2)	
	3	3
	4	9
+		9
	9	1

c.

	T	O
	(1)	
	3	9
	2	4
+	2	5
	8	8

d.

	T	O
	(1)	
	4	3
	3	5
+	1	6
	9	4

e.

	T	O
	(1)	
	6	8
	1	3
+		8
	8	9

f.

	T	O
	(2)	
	4	5
	1	6
+	1	9
	8	0

g.

	T	O
	(2)	
	1	8
	2	4
+	2	9
	7	1

h.

	T	O
	(1)	
	2	5
	2	5
+	2	5
	7	5

Exercise 4.6

1. Find the sum.

Ans. a.

H	T	O
(1)	(1)	
1	5	5
+ 1	7	7
3	3	2

b.

H	T	O
(1)	(1)	
1	7	8
+ 6	2	4
8	0	2

c.

H	T	O
◯	(1)	
2	1	7
+ 4	6	9
6	8	6

d.

H	T	O
◯	(1)	
4	4	4
+ 2	2	9
6	7	3

e.

H	T	O
◯	(1)	
2	2	3
+ 0	3	7
2	6	0

f.

H	T	O
◯	(1)	
4	2	9
+ 1	4	3
5	7	2

g.

H	T	O
(1)	(1)	
2	7	8
+ 1	2	9
4	0	7

h.

H	T	O
(1)	(1)	
1	5	6
+ 3	6	7
5	2	3

i.

H	T	O
◯	(1)	
4	0	2
+ 1	6	9
5	7	1

j.

H	T	O
◯	(1)	
1	4	9
+ 3	1	6
4	6	5

Exercise 4.7

Solve the following :

Ans. 1. Naman collected 38 marbles and her friend collected 29 marbles. How many marbles do they have together?

H	T	O
	(1)	
	3	8
+	2	9
	6	7

Ans : They have 67 marbles.

2. In a class, there are 18 girls and 40 boys. How many students are there in all?

H	T	O
	◯	
	1	8
+	4	0
	5	8

Ans : There are 58 student in all.

3. 256 people visited the bank in the morning and 187 people went there in the afternoon. How many people went to the bank in all?

H	T	O
(1)	(1)	
2	5	6
+ 1	8	7
4	4	3

Ans : 443, people went to the bank in all.

4. A balloon seller has 15 blue balloons and 22 red balloons and 30 yellow balloons. How many balloons does he have in all?

H	T	O
	1	5
	3	0
+	2	2
	6	7

Ans : He has 67 balloons in all.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. a.

Subtraction

5

Let's Review

Exercise 5.1

Find the difference.

Ans. 1.

T	O
7	7
– 5	2
2	5

2.

T	O
8	6
– 1	6
7	0

3.

T	O
9	0
– 4	0
5	0

4.

T	O
7	8
– 6	6
1	2

5.

T	O
3	9
– 1	6
2	3

6.

T	O
9	6
– 8	0
1	6

7.

T	O
7	6
– 5	1
2	5

8.

T	O
9	6
– 7	3
2	3

9.

T	O
4	5
– 2	4
2	1

10.

T	O
5	8
– 3	5
2	3

11.

T	O
7	7
– 6	6
1	1

12.

T	O
7	3
– 4	4
2	9

13.

T	O
4	6
– 3	1
1	5

14.

T	O
9	9
– 7	7
2	2

15.

T	O
8	6
– 7	6
1	0

Exercise 5.2

A. Fill in the blanks on the basis of subtraction facts.

Ans.

1.	43 – 0	=	**43**	2.	18 – 1	=	**17**
3.	77 – 77	=	**0**	4.	54 – 0	=	**54**
5.	33 – 1	=	**32**	6.	62 – 0	=	**62**
7.	98 – 1	=	**97**	8.	56 – 56	=	**0**
9.	34 – 0	=	**34**	10.	18 – 18	=	**0**
11.	50 – 50	=	**0**	12.	33 – 1	=	**32**
13.	89 – 0	=	**89**	14.	67 – 1	=	**66**
15.	54 – 54	=	**0**				

Exercise 5.3

1. Regroup the following. First one has been done for you :

Ans. a.

T	O
3	3

→

T	O
2	13

b.

T	O
4	2

→

T	O
3	12

c.

T	O
7	4

→

T	O
6	14

d.

T	O
9	7

→

T	O
8	17

e.

T	O
4	6

→

T	O
3	16

f.

T	O
1	2

→

T	O
0	12

2. Find the difference :

Ans. a.

T	O
~~9~~ (8)	~~6~~ (16)
– 3	7
5	9

b.

T	O
~~3~~ (2)	~~3~~ (13)
– 2	9
0	4

c.

T	O
~~5~~ (4)	~~1~~ (11)
– 4	4
0	7

d.

T	O
~~9~~ (8)	~~2~~ (12)
– 6	5
2	7

e.

T	O
~~8~~ (7)	~~8~~ (18)
– 2	9
5	9

f.

T	O
③	⑭
~~4~~	~~4~~
−2	9
1	5

g.

T	O
⑥	⑭
~~7~~	~~4~~
−2	8
4	6

h.

T	O
⑤	⑫
~~6~~	~~2~~
−1	8
4	4

i.

T	O
⑧	⑪
~~9~~	~~1~~
−4	8
4	3

j.

T	O
⑥	⑰
~~7~~	~~7~~
−5	8
1	9

Exercise 5.4

Find the difference.

Ans. 1.

H	T	O
4	3	5
−2	2	4
2	1	1

2.

H	T	O
3	8	9
−1	2	6
2	6	3

3.

H	T	O
7	5	6
−4	0	3
3	5	3

4.

H	T	O
7	2	9
−3	1	5
4	1	4

5.

H	T	O
6	2	8
−3	1	6
3	1	2

6.

H	T	O
5	6	7
−3	2	1
2	4	6

7.

H	T	O
6	5	4
−4	3	3
2	2	1

8.

H	T	O
6	1	7
−3	1	5
3	0	2

9.

H	T	O
6	2	1
−3	2	1
3	0	0

10.

H	T	O
5	4	5
−2	2	3
3	2	2

Exercise 5.5

Find the difference.

Ans. 1.

H	T	O
④	⑮	⑫
5	6	2
− 2	6	4
2	9	8

2.

H	T	O
②	⑱	○
3	8	9
− 1	9	2
1	9	7

3.

H	T	O
⑤	⑨	⑮
6	0	5
− 2	5	8
3	4	7

4.

H	T	O
②	⑯	⑯
3	7	6
− 2	8	8
0	8	8

5.

H	T	O
⑧	⑭	⑩
9	5	0
− 3	6	4
5	8	6

6.

H	T	O
④	⑨	⑩
5	0	0
− 3	4	5
1	5	5

7.

H	T	O
○	○	○
7	5	6
− 4	5	6
3	0	0

8.

H	T	O
⑦	⑨	⑯
8	0	6
− 4	5	8
3	4	8

9.

H	T	O
③	⑩	
4	0	4
− 3	5	4
0	5	0

10.

H	T	O
○	○	○
7	6	8
− 4	6	5
3	0	3

Higher Order Thinking skills

Using the digits 5,2,7 from the greatest and the least numbers and find their difference.

Ans. →

H	T	O
⑥	⑭	⑫
7	5	2
− 2	5	7
4	9	5

Exercise 5.6

1. Find the difference and check your answer using addition.

Ans. a.

T	O
7	6
− 2	4
5	2

T	O
5	2
+ 2	4
7	6

b.

T	O
9	1
− 5	0
4	1

T	O
4	1
+ 5	0
9	1

c.

T	O
2	5
− 1	3
1	2

T	O
1	2
+ 1	3
2	5

d.

T	O
8	3
− 4	2
4	1

T	O
4	1
+ 4	2
8	3

2. Fill in the blanks.

Ans.

b.	60	+	25	=	85		85	–	25	=	60
c.	76	+	4	=	80		80	–	4	=	76
d.	45	+	10	=	55		55	–	10	=	45
e.	52	+	8	=	60		60	–	8	=	52
f.	38	+	4	=	42		42	–	4	=	38

Exercise 5.7

1. Solve these story problems :

Ans. 1. A shopkeeper had 740 packets of chips. Out of these packets he sold 346 packets. How many packets were left?
Ans : 394 Packets were left.

H	T	O
(6)	(13)	(10)
7	4	0
– 3	4	6
3	9	4

2. There are 645 students in a school. Out of which 281 are girls. How many boys are in the school?
Ans : There are 364 boys in the school.

H	T	O
(5)	(14)	
~~6~~	~~4~~	5
– 2	8	1
3	6	4

3. In a zoo, there are 412 deer and 175 tiger. How many more deer than tiger are there in the zoo?
Ans : There are 237 deer more than tigers.

H	T	O
(3)	(10)	(12)
4	1	2
– 1	7	5
2	3	7

4. In a book, there are 96 pages. Kini has read 78 pages. How many pages are left unread?
Ans : 18 Pages are left unread.

T	O
(8)	(16)
~~9~~	~~6~~
– 7	8
1	8

5. A balloon seller had 55 balloons. He sold 50 of them. How many balloon are left unsold?
Ans : 5 balloon are left unsold.

T	O
5	5
– 5	0
0	5

Exercise 5.8

Add or subtract.

Ans. 1. A courier boy delivered 77 packets and 125 letters during the week. How many deliveries did he make in all?
Ans. He delivered 202 deliveries in all.

H	T	O
(1)	(1)	
	7	7
+ 1	2	5
2	0	2

2. There are 864 students in a school, out of which 453 are boys. How many of the total students are girls?
Ans. There are 411 girls in the school.

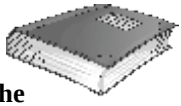
H	T	O
8	6	4
– 4	5	3
4	1	1

3. A wholesaler sold 190 balls and 105 cars in a day. How many toys did he sell in all?

	H	T	O
	1	9	0
+	1	0	5
	2	9	5

Ans : He sold 295 toys in all.

4. An exercise book had 168 pages. 139 pages have been used. How many pages are unused?



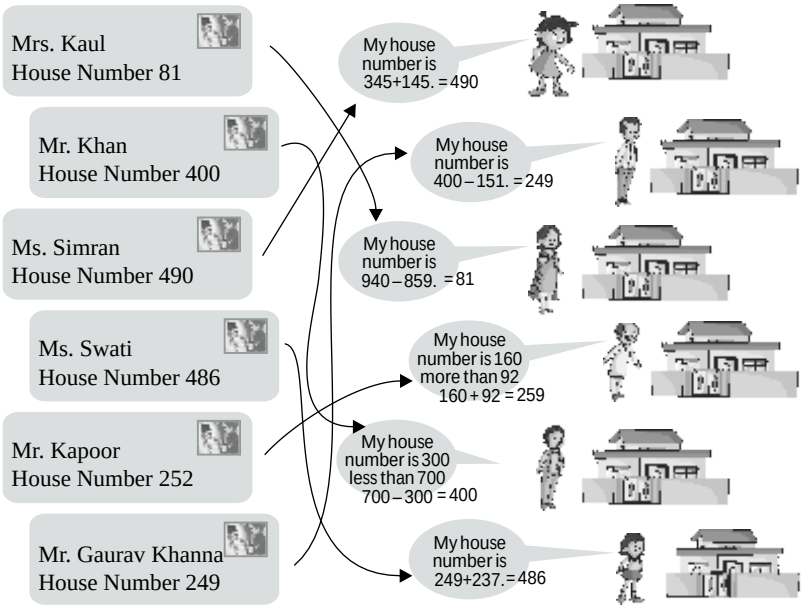
	H	T	O
		(5)	(18)
	1	~~6~~	~~8~~
−	1	3	9
	0	2	9

Ans : There are 29 pages unused in the exercise book.

PLAY TIME

Help postman Rajan deliver these letters to the right homes

Ans.



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. a. 4. a. 5. b.

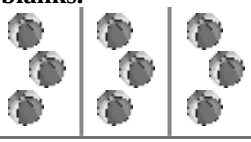
Multiplication

6

Let's Review

Fill in the blanks.

Ans.

1. 

3 + 3 + 3 = **9**

(**3**) groups of (**3**) is (**9**)

2. 

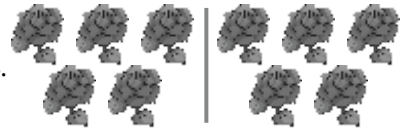
$2 + 2 + 2 + 2 = \mathbf{8}$

4 groups of 2 is 8

3. 

$4 + 4 + 4 = \mathbf{12}$

3 groups of 4 is 12

4. 

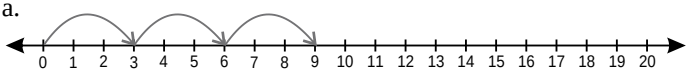
$5 + 5 = \mathbf{10}$

2 groups of 5 is 10

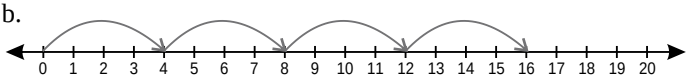
Exercise 6.1

A. Look at the multiplication shown on the number line and fill in the boxes.

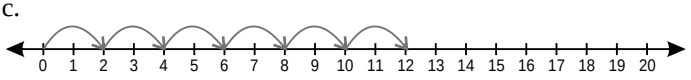
Ans.

a. 

3 jumps of 3 = 3 × 3 = 9

b. 

4 jumps of 4 = 4 × 4 = 16

c. 

6 jumps of 2 = 6 × 2 = 12

Inside and Outside

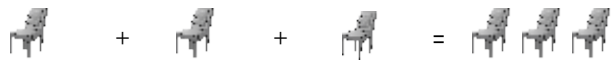
Write 'O' for outside and 'I' for inside in the circles.

Ans.

b. 

4 Books + 4 Books + 4 Books = 12 Books

So, 3 times 4 = 12 or **3** × **4** = 12

c. 

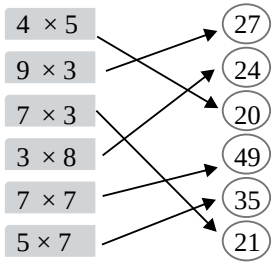
1 Chair + 1 Chair + 1 Chair = 3 Chairs

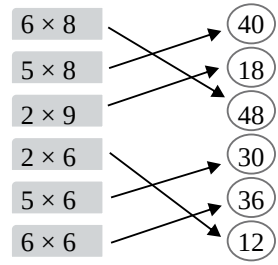
So, 3 times 1 = 3 or **3** × **1** = 3

Exercise 6.2

1. Match the boxes with the circles :

Ans.





2. Fill in the boxes :

Ans.

3	×	2	=	6
6	×	3	=	18
9	×	2	=	18
4	×	7	=	28
8	×	4	=	32
4	×	6	=	24

7	×	4	=	28
7	×	8	=	56
9	×	5	=	45
6	×	9	=	54
8	×	8	=	64
5	×	3	=	15

Think And Do

Fill in the boxes.

Ans.

1. 3 × 2 = 2 × 3 = 6
2. 7 × 4 = 4 × 7 = 28
3. 3 × 8 = 8 × 3 = 24
4. 5 × 9 = 9 × 5 = 45
5. 1 × 10 = 10 × 1 = 10
6. 8 × 5 = 5 × 8 = 40

Exercise 6.3

1. Fill in the circles to complete the multiplication properties.

Ans.

1. 4 × 7 = (7) × 4 = (28)
2. 2 × 9 = (9) × 2 = (18)
3. (3) × 10 = 10 × 3 = (30)
4. 5 × (8) = 8 × 5 = (40)
5. (2) × 0 = 0 × 2 = (0)
6. 9 × 1 = 1 × (9) = (9)
7. (6) × 4 = (4) × 6 = 24
8. (3) × 6 = 6 × 3 = (18)

Exercise 6.4

Find the product using multiplication tables.

Ans.

1.

T	O
	8
×	2
1	6

2.

T	O
	5
×	4
2	0

3.

T	O
	9
×	9
8	1

4.

T	O
	2
×	9
1	8

5.

T	O
	7
×	7
4	9

6.

T	O
	8
×	9
7	2

7.

T	O
	8
×	6
4	8

8.

T	O
	3
×	8
2	4

Exercise 6.5

Find the product.

Ans. 1.

	T	O
	3	0
×		3
	9	0

2.

	T	O
	2	1
×		2
	4	2

3.

	T	O
	4	3
×		2
	8	6

4.

	T	O
	2	4
×		2
	4	8

5.

	T	O
	2	3
×		3
	6	9

6.

	T	O
	1	2
×		3
	3	6

7.

	T	O
	2	0
×		4
	8	0

8.

	T	O
	1	3
×		3
	3	9

Exercise 6.6

Find the product.

Ans. 1.

	H	T	O
	2	3	1
×			3
	6	9	3

2.

	H	T	O
	2	4	2
×			2
	4	8	4

3.

	H	T	O
	3	2	1
×			3
	9	6	3

4.

	H	T	O
	1	3	0
×			2
	2	6	0

5.

	H	T	O
	1	0	1
×			6
	6	0	6

6.

	H	T	O
	1	0	2
×			4
	4	0	8

7.

	H	T	O
	7	9	6
×			1
	7	9	6

8.

	H	T	O
	4	3	4
×			2
	8	6	8

Exercise 6.7

Find the product.

Ans. 1.

	H	T	O
		①	
		5	4
×			4
	2	1	6

2.

	H	T	O
		⑤	
		5	9
×			6
	3	5	4

3.

	H	T	O
		③	
		6	9
×			4
	2	7	6

4.

	H	T	O
		①	
		7	7
×			2
	1	5	4

5.

	H	T	O
	①	②	
	1	2	4
×			7
	8	6	8

6.

	H	T	O
	⑤	④	
	2	6	5
×			8
	21	2	0

7.

	H	T	O
	①	②	
	5	4	9
×			3
	16	4	7

8.

	H	T	O
	⑥	①	
	1	7	2
×			9
	15	4	8

Think And Do

Multiply mentally.

Ans. 1. $23 \times 5 =$ **115** 2. $12 \times 9 =$ **108** 3. $15 \times 10 =$ **150**

4. $15 \times 3 =$ **45** 5. $25 \times 2 =$ **50** 6. $17 \times 6 =$ **102**

Exercise 6.8

Solve the following :

Ans. 1. 84 children can sit in a bus. How many children can sit in 2 such buses?

Ans : 168 children can sit in 2 buses.

H	T	O
	8	4
×		2
1	6	8

---

2. There are 5 rows of trees and 35 trees in each. How many trees are there in all?

Ans : There are 175 trees in all.

H	T	O
	(2)	
	3	5
×		5
1	7	5

---

3. There are 7 trees in a garden. If 32 birds sit on each tree, then how many birds are there in all?

Ans : There are 224 birds in the garden.

H	T	O
	(1)	
	3	2
×		7
2	2	4

---

4. There are 5 bundles of kites. In each bundle 120 kites are packed. How many kites are there in all?

Ans : There are 600 kites in all.

H	T	O
(1)		
1	2	0
×		5
6	0	0

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. c.

PLAY TIME

Ans. 1. ` 25 × 5 = ` 125 2. ` 130 × 2 = ` 260

3. ` 15 × 7 = ` 105 4. ` 45 × 8 = ` 360

Division 7

Let's Review

Divide equally by forming groups.

Ans. 1. 14 burgers among 7 children

14 ÷ 7 = **2**

2. 15 ice-creams among 5 people

15 ÷ 5 = **3**

3. 12 cakes among 3 children

12 ÷ 3 = **4**

Exercise 7.1

1. Put the following into equal groups and write the division fact.

Ans. a. Put 14 caterpillars into groups of 7.
Division fact : **14 ÷ 7 = 2**

b. Put 9 umbrellas into groups of 3.
Division fact : **9 ÷ 3 = 3**

2. Divide the following using repeated subtraction. One has been done for you.

Ans. b.

24 ÷ 8	
24 – 8 = 16	1 time
16 – 8 = 8	2 time
8 – 8 = 0	3 time
24 ÷ 8 = 3	

c.

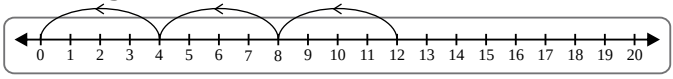
18 ÷ 6	
18 – 6 = 12	1 time
12 – 6 = 6	2 time
6 – 6 = 0	3 time
18 ÷ 6 = 3	

d.

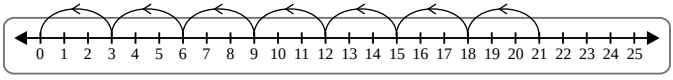
16 ÷ 4	
16 – 4 = 12	1 time
12 – 4 = 8	2 time
8 – 4 = 4	3 time
4 – 4 = 0	4 time
16 ÷ 4 = 4	

3. Use the number line to find the answers.

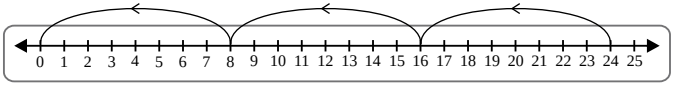
a. 12 ÷ 4 = **3**



b. 21 ÷ 3 = **7**



c. 24 ÷ 8 = **3**



Think And Do

Write the division fact for the following :

Ans. 1. 35 – 7 – 7 – 7 – 7 ⟶ = [35] ÷ [7] = [5]

2. 20 – 5 – 5 – 5 – 5 ⟶ = [20] ÷ [5] = [4]

Exercise 7.2

Fill in the boxes with multiplication and division facts .

Ans. 1.

4 × 6 = 24 — 24 ÷ 4 = (6); 24 ÷ 6 = (4)

2.

(8) × (4) = (32) — 32 ÷ 8 = 4; 32 ÷ 4 = 8

3. $9 \times 5 = 45$ → $45 \div 9 = 5$, $45 \div 5 = 9$

4. $6 \times 8 = 48$ → $48 \div 6 = 8$, $48 \div 8 = 6$

Exercise 7.3

Fill in the boxes .

Ans. 1. $13 \div 1 = 13$ 2. $4 \div 4 = 1$ 3. $7 \div 7 = 1$

4. $8 \div 1 = 8$ 5. $5 \div 5 = 1$ 6. $20 \div 20 = 1$

7. $6 \div 1 = 6$ 8. $9 \div 9 = 1$ 9. $10 \div 1 = 10$

Exercise 7.4

Divide and find the quotient.

Ans. 1. $4\overline{)32}$ — 8, −32, 00

2. $2\overline{)12}$ — 6, −12, 00

3. $5\overline{)25}$ — 5, −25, 00

4. $6\overline{)36}$ — 6, −36, 00

5. $8\overline{)24}$ — 3, −24, 00

6. $9\overline{)72}$ — 8, −72, 00

7. $3\overline{)21}$ — 7, −21, 00

8. $7\overline{)63}$ — 9, −63, 00

Exercise 7.5

Solve with the help of long division. One has been done for you.

Ans. 1. $4\overline{)24}$

6
4)24
−24
00

Ans. 6

2. $6\overline{)36}$

6
6)36
−36
00

Ans. 6

3. $3\overline{)99}$

33
3)99
−9
09
−9
0

Ans. 33

4. $2\overline{)66}$

33
2)66
−6
06
−6
0

Ans. 33

5. $5\overline{)80}$

16
5)80
−5
30
−30
00

Ans. 16

6. $7\overline{)98}$

14
7)98
−7
28
−28
00

Ans. 14

7. $3\overline{)96}$

32
3)96
−9
06
−6
0

Ans. 32

8. $3\overline{)84}$

28
3)84
−6
24
−24
00

Ans. 28

Exercise 7.6

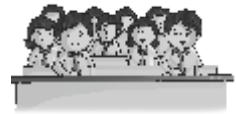
Solve the following :

Ans. 1. There are 48 pencils to be kept in 4 pencil boxes equally. How many pencils will you keep in each pencil box?

$$\begin{array}{r} 12 \\ 4\overline{)48} \\ -4 \\ \hline 08 \\ -8 \\ \hline 0 \end{array}$$

Ans : 12 Pencils will be kept in each pencil box.

2. There are 96 students are standing in 4 rows. The number of students are in each row is the same. How many students does each row have?



$$\begin{array}{r} 24 \\ 4\overline{)96} \\ -8 \\ \hline 16 \\ -16 \\ \hline 00 \end{array}$$

Ans : 24 students are in each row.

3. There are 20 apples to be placed in 5 boxes equally. How many apples will you keep in each box?

$$\begin{array}{r} 4 \\ 5\overline{)20} \\ -20 \\ \hline 00 \end{array}$$

Ans : 4 apples will be kept in each box.

4. There are 12 idlies to be distributed among 3 friends equally. How many idlies will you give to each friend?

$$\begin{array}{r} 4 \\ 3\overline{)12} \\ -12 \\ \hline 00 \end{array}$$

Ans : 4 idlies will be given to each friend.

5. 32 children were to go for a picnic. 8 children could sit in one van. How many vans are needed?

$$\begin{array}{r} 4 \\ 8\overline{)32} \\ -32 \\ \hline 00 \end{array}$$

Ans : 4 Vans are needed for 32 children.

6. Manav bought 18 Pastries. He distributed them equally among 6 friends. How many Pastries did each child get?

$$\begin{array}{r} 3 \\ 6\overline{)18} \\ -18 \\ \hline 00 \end{array}$$

Ans : Each child got 3 pastries.

MULTIPLE CHOICE QUESTIONS

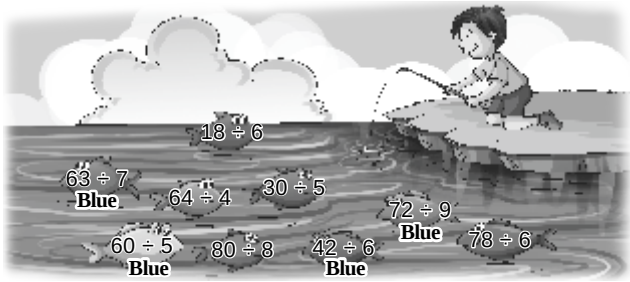
Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. c.

PLAY TIME

Jitu can catch only fishes to which the answers are 8, 9,12, 7. Colour the fishes blue he catches.

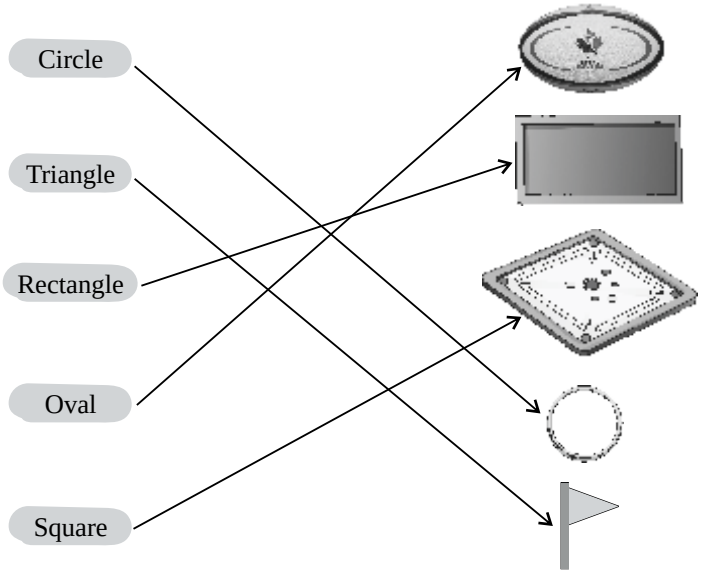
Ans. Colour Blue



Let's Review

Match the figures with the shapes given below :

Ans.



Exercise 8.1

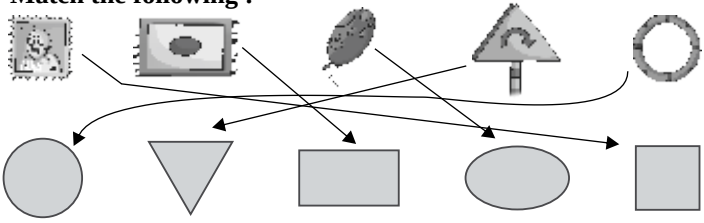
1. Find the number of curved, horizontal, vertical and slanting lines in the figure shown.

Ans. 1. **4** 2. **9** 3. **6** 4. **4**

Exercise 8.2

1. Match the following :

Ans.



2. Name the shape. Then write how many sides and corner it has.

Ans.

Shape				
Name	Square	Rectangle	Circle	Triangle
Sides	4	4	No	3

Corners	4	4	No	3

Exercise 8.3

1. Tick (3) the correct choice :

Ans. 1. I have only 1 face. I am cube/sphere. 3

2. I have eight corners. I am a cuboid/cone. 3

3. I have 3 faces. I am a sphere/cylinder. 3

4. I have one corner. I am a cone/cube. 3

5. I have two edges. I am a cylinder/cone. 3

2. Do it yourself.

Exercise 8.4

1. Find out whether these objects roll or slide or both.

Ans.

Object	Roll	Slide	Both
		3	
	3		
		3	
	3		

MULTIPLE CHOICE QUESTIONS

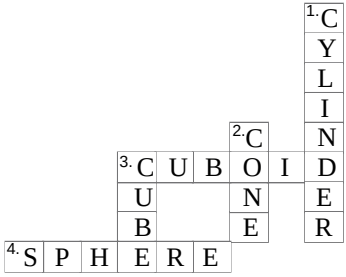
Tick (3) the correct choice :

Ans. 1. a. 2. a.

PLAY TIME

Complete the crosswords with the name of the solid shape :

Ans.

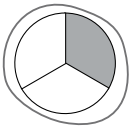
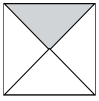
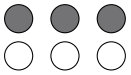


Let's Review

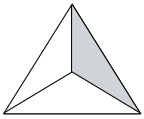
Circle the correct picture, which shows the fraction :

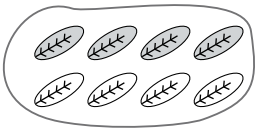
Ans.

$\frac{1}{3}$

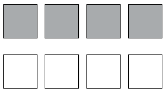
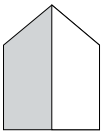
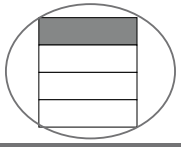




$\frac{1}{2}$

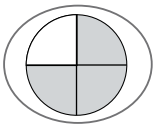
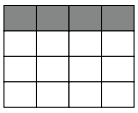




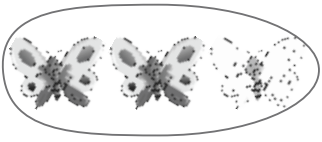
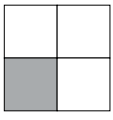
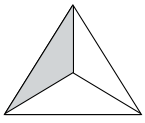
$\frac{1}{4}$

$\frac{3}{4}$

$\frac{2}{3}$

Exercise 9.1

1. Tick (3) the shapes which are cut into halves.

Ans. a. b. c. d.

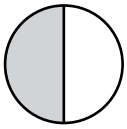
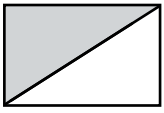
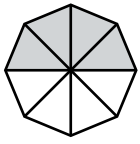


3


3

2. Colour the part (s) to show $\frac{1}{2}$.

Ans. a. b. c.

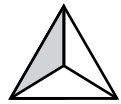




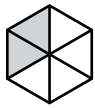
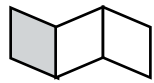
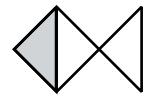
3. Join the dots of the other half. Colour it.

Ans. Do it yourself.

Exercise 9.2

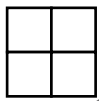
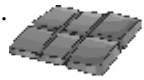
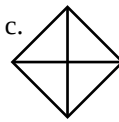
1. Colour the parts that show one-third.

Ans. 1.  2.  3. 

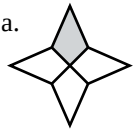
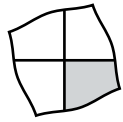
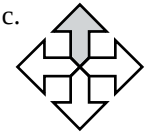
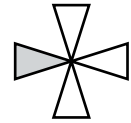
4.  5.  6. 

Exercise 9.3

1. Tick (3) the pictures which are divided into quarters.

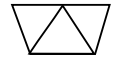
Ans. a.  (3) b.  ( ) c.  (3) d.  ( )

2. Colour the parts to show $\frac{1}{4}$.

Ans. a.  b.  c.  d. 

Think And Do

Answer the following questions. One has been done for you.

Ans. 2. How many  are in  ? **3**

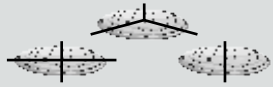
3. How many  are in  ? **6**

PLAY TIME

There was a Pizza party at Rohan's house.

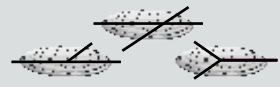
Ans.

Vendy, Rishabh and Gomti share a pizza is cut into 3 equal parts. Which is their pizza?



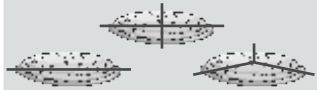
A B 3 C

Annie cuts a pizza into 4 parts. The parts are not equal. Which is Annie's pizza?



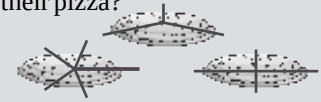
A B 3 C

Jhanvi cuts pizza into 2equal parts. Which is Jhanvi's pizza?



A 3 B C

Vendy, Jhanvi, Tanvi and Bunty share a pizza. The pizza is cut into 4 equal parts. Which is their pizza?



A B C 3

Let's Review

A. What is the length of each.

Ans. 1.

(3) Crayons long

2.

(2) Crayons long

B. How much the vegetables weigh?

Ans. 1.

(5) tomatoes weigh as much as (4) blocks

2.

(3) brinjals weigh as much as (2) blocks.

C. Colour the vessel which can hold more liquid.

Ans.

Exercise 10.1

1. Decide whether these lengths are long or short and use m or cm accordingly.

Ans. a. The length of a toothbrush **short, cm**
b. The height of a tree **long, m**
c. The length of a wall **long, m**
d. The length of a spoon **shot, cm**
e. The thickness of a book **short, cm**

2. Using the ruler drawn, find the length of the given objects.

Ans. a. 6 cm b. 12 cm

Exercise 10.2

1. Add:

Ans. a.

	m	cm
	(1)	
	7	26
+	7	54
	14	80

b.

	m	cm
	8	50
+	7	09
	15	59

c.

	m	cm
	(1)	
	6	24
+	9	17
	15	41

d.

	m	cm
	25	45
+	11	20
	36	65

2. Subtract :

Ans. a.

	m	cm
	③	⑫
	~~4~~	~~2~~8
−	1	36
	2	92

b.

	m	cm
	5	85
−	3	23
	2	62

c.

	m	cm
	6	39
−	5	14
	1	25

d.

	m	cm
	47	92
−	23	30
	24	62

Exercise 10.3

1. Write g for objects that can be measured in grams and kg for objects that can be measured in kilograms.

Ans. a. **kg** b. **g** c. **kg** d. **g** e. **kg** f. **g**

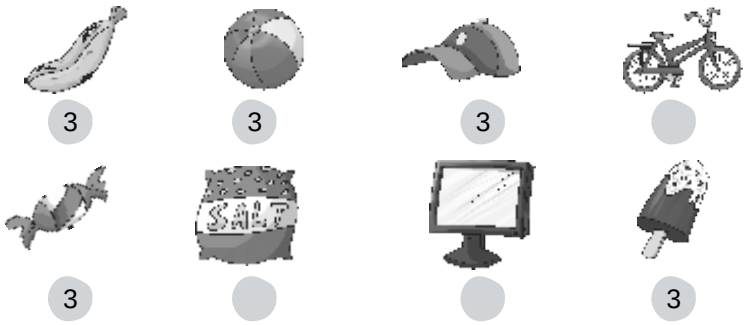
2. Write the weight of the items being weighted. One has been done for you.

Ans. b. Weight of the apples = **500** g
c. Weight of the soap bar = **75** g
d. Weight of the mangoes = **250** g

Think And Do

Put a (3) in the boxes for those objects that weigh less than 1 kg.

Ans.



Exercise 10.4

1. Add :

Ans. a.

	kg	g
	7	167
+	2	320
	9	487

b.

	kg	g
		①
	5	438
+	1	325
	6	763

c.

	kg	g
	3	530
+	5	265
	8	795

d.

	kg	g
	①	
	95	100
+	25	300
	120	400

e.

	kg	g
	①①	①
	15	480
+	24	520
	40	000

f.

	kg	g
	①	
	56	250
+	25	102
	81	352

2. Subtract :

Ans. a.

kg	g
10	~~660~~ (3 15 10)
−6	475
4	185

b.

kg	g
	(7 13)
6	~~83~~6
−3	542
3	294

c.

kg	g
7	195
−2	073
5	122

kg	g
(6 12)	
~~72~~	350
−18	150
54	200

kg	g
58	300
−26	200
32	100

kg	g
	(2 10)
26	~~30~~0
−14	150
12	150

Exercise 10.5

1. Tick (3) the correct unit. Which standard unit will you use to measure the capacity of.

Ans. a. 

2 L / 200 mL ✓

b. 

500 mL / 500 L ✓

c. 

200 mL / 2 L ✓

d. 

300 mL / 25 L ✓

e. 

500 mL / 500 L ✓

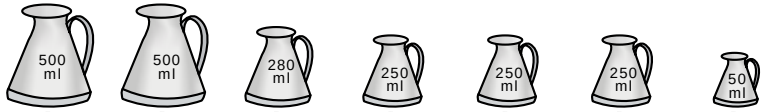
f. 

30 mL / 30 L ✓

2. Tick (3) the container that are needed to measure the given quantity of liquids.

1 L 500 mL of water

Ans.



✓ ✓ ○ ✓ ✓ ○ ○

Exercise 10.6

1. Add the following :

Ans. a.

L	mL
4	615
+ 2	250
6	865

b.

L	mL
(1)	(1)
26	148
+ 16	246
42	394

c.

L	mL
14	360
+ 10	108
24	468

d.

L	mL
(1)	
58	330
+ 17	210
75	540

e.

L	mL
75	270
+ 83	320
158	590

f.

L	mL
10	520
+ 21	135
31	655

2. Subtract the following :

Ans. a.

L	mL
	(6) (13) (10)
6	~~7~~ ~~4~~ ~~0~~
− 4	275
2	465

b.

L	mL
	(2) (10)
63	9 ~~3~~ ~~0~~
−42	728
21	202

c.

L	mL
(6) (14)	(12) (10)
~~7~~ ~~5~~	~~3~~ ~~0~~ ~~0~~
−56	320
18	980

L	mL
(8) (10)	(2) (9) (10)
~~9~~ ~~0~~	~~3~~ ~~0~~ ~~0~~
−24	194
66	106

L	mL
	(5) (12) (10)
98	6 ~~3~~ ~~0~~
−65	487
33	143

L	mL
72	280
−61	150
11	130

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. b. 3. c. 4. a.

Money

Let's Review

Count the money. The first one has been done for you.

Ans. 1.




` 18

2.




` 7

3.



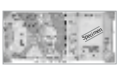

` 115

4.




` 270

5.


` 631

6.





` 257

Exercise 11.1

1. Write in short.

Ans. a. `15.20 b. `80.35 c. `3.60 d. `26.40
e. `95.05 f. `1.10 g. `77

2. How much money is it?

Ans. b. **105** rupees **50** paise
c. **60** rupees **75** paise
d. **150** rupees **50** paise
e. **551** rupees **50** paise
f. **67** rupees **50** paise

Think And Do

Write the following in rupees and paise.

Ans. 1. twenty five paise
2. five paise

Exercise 11.2

1. Look at the price tags. Write down the price and add to find the total cost.

Ans. a.

`	p
50	00
+ 5	75
55	75

b.

`	p
(1)(1)	
95	50
+15	50
111	00

c.

`	p
(1)(1)	
15	50
+ 5	75
21	25

d.

`	p
(1)	
5	00
+ 65	75
70	75

2. Add the following :

Ans. a.

`	p
70	00
+12	00
82	00

b.

`	p
(1)	
82	60
+ 9	35
91	95

c.

`	p
56	30
+31	65
87	95

d.

`	p
(1)	(1)
34	25
+18	45
52	70

e.

`	p
62	40
+20	35
82	75

f.

`	p
(1)	(1)
32	85
+11	15
44	00

g.

`	p
(1)	
72	50
+18	45
90	95

h.

`	p
(1)	(1)
48	25
+28	55
76	80

Exercise 11.3

1. Subtract the rupees and paise.

Ans. 1.

`	p
5	65
− 2	50
3	15

2.

`	p
	(2)(10)
9	~~30~~
− 4	15
5	15

3.

`	p
	(8)(10)
8	~~90~~
− 6	25
2	65

4.

`	p
35	60
−21	40
14	20

5.

`	p
88	25
−16	10
72	15

6.

`	p
23	15
− 12	00
11	15

7.

`	p
314	75
−103	25
211	50

8.

`	p
(2)(14)(7)	(10)
234	~~80~~
−126	15
108	65

Solve the following :

1.

`	p
(1)	
22	00
+ 18	00
40	00

Ans. Vidhi Spent `40

2.

`	p
(1)	
54	00
+ 16	00
70	00

Ans. Kabeer spent `70

3.

	`	p
	160	00
+	179	00
	339	00

Ans. Amar gave `339 in all.

4.

	`	p
	75	00
−	57	00
	18	00

Ans. `18 is left with Leena

Think And Do

Now, solve these :

Ans. 1. ` 7 = **700** p
2. ` 8 = **800** p
3. ` 5 and 25 p= **525** p
4. 400 p = `**4**
5. **900** p = ` 9
6. ` 3 and 50 p = **350** p

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. c. 3. c. 4. b. 5. c.

Higher Order Thinking skills

How much would 1o pencils cost?

Ans. `50

How much would 20 pencils cost?

Ans. `100

They cost `90. Which would cost more-the crayons or the pencils?

Ans. Crayons would costly more than pencils.

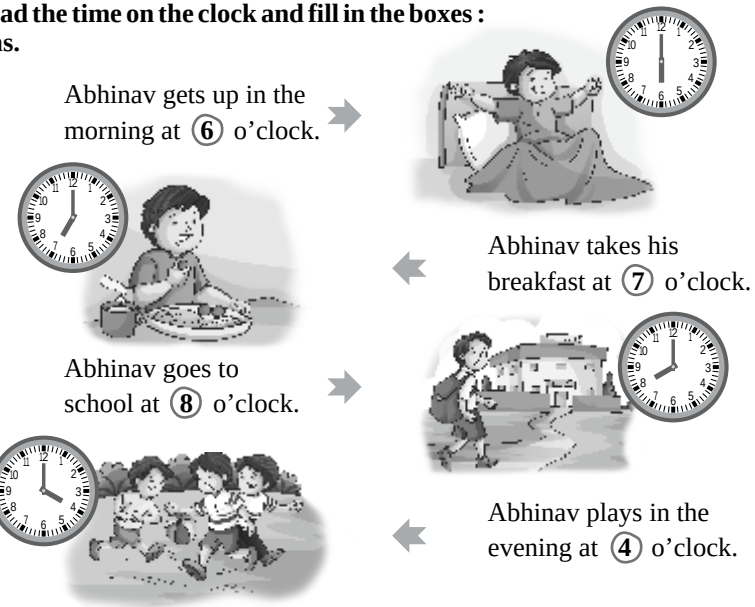
Time and Calendar

12

Let's Review

Read the time on the clock and fill in the boxes :

Ans.



Exercise 12.1

1. Write the correct time.

Ans. a.  6 o'clock

b.  3 : 30

c.  9 o'clock

d.  6 : 05

e.  8 : 30

f.  7 : 30

g.  10 : 30

h.  1 : 30

2. Join the dots to get the hands.

Ans. a.  2 : 30

b.  1 : 30

c.  11 : 00

d.  6 : 30

3. Draw the hands to show the time given in the box.

Ans. a.  5 : 30

b.  6 : 00

c.  9 : 30

d.  4 : 30

Life Skills

Ans. Do it yourself.

Exercise 12.2

1. Write the time shown by each clock in two ways. One has been done for you.

Ans. a.  **2 : 45 quarter to three**

b.  **6 : 45 quarter to seven**

c.  **11 : 45 quarter to twelve**

d.  **4 : 15 quarter past four**

e.  **4 : 45 quarter to five**

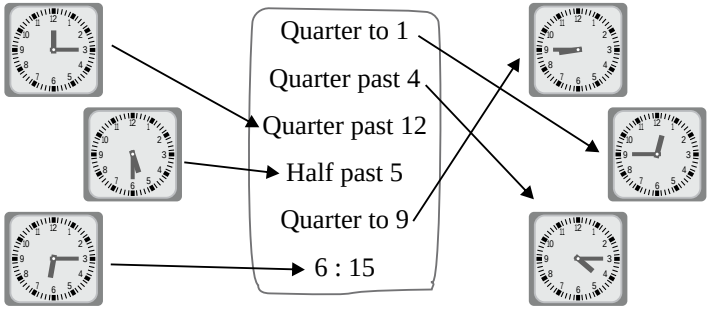
f.  **8 : 15 quarter past eight**

g.  **2 : 15 quarter past two**

h.  **1 : 15 quarter past one**

2. Match the following :

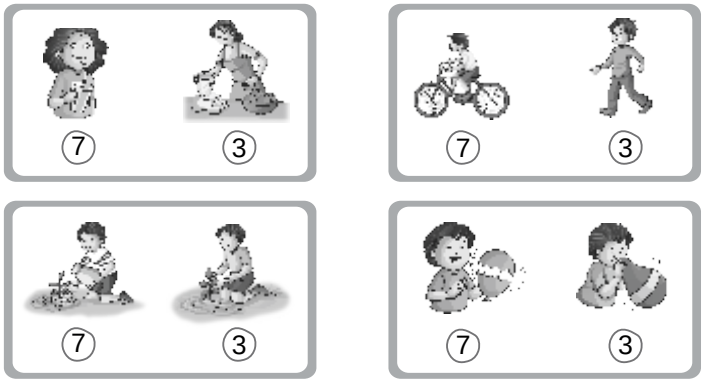
Ans.



Exercise 12.3

Tick (3) the activity which take a longer time and cross Out (7) those which take a shorter time.

Ans.



Project

Ans. Do it yourself.

Exercise 12.4

1. Fill in the blanks.

Ans.
a. If tomorrow will be Sunday, then today is **Saturday**.
b. The day just after Thursday is **Friday**.
c. There are **Seven** days in a week.
d. Wednesday comes just before **Thursday**.
e. The day just after Saturday is **Sunday**.

2. Write the month.

Ans.
a. Third month is **March**.
b. Last month was **December**.
c. My birthday is in the month of **(Yourself)**.
d. Our Independence Day is in the month of **August**.
e. Fourth month of the year is **April**.
f. This month is **(Yourself)**.

Exercise 12.5

1. Answer the following questions. You can use the help box.

Ans. a. Very cold b. Rain coat c. Cold things
d. Vasanta e. Shishira f. Vasanta

2. Which season is most suitable for the following?

Ans. a. In Varsha b. Grishma c. In Shishira

Think And Do

Fill in the blanks to find the name of the days.

Ans. 1. M**O**N**D**A**Y** 2. T**U**E**S**D**A**Y
3. W**E**DNES**D**A**Y** 4. T**H**U**R**S**D**A**Y**
5. FR**I**D**A**Y 6. S**A**TU**R**D**A**Y
7. S**U**N**D**A**Y**

Data Handling

13

Let's Review

Collection of Information or Data

On the Road :

Look at the given picture and fill the table below :

Ans.

Vehicle				
Numbers	1	3	2	2

Exercise 13

1. Look at the picture carefully.
Count the number of each object in the picture and colour the same number for each object.

Ans.

Object	**Number**
	
	
	
	
	

Now, answer the following questions.

Ans. a. How many ducks are there? **5**
b. How many mangoes are there? **6**
c. How many more balloons than lotus? **7**

2. How do the children in Jahanvi's class come to school.

Ans. a. 18 b. Yourself on foot c. 35

3. Following are the marks obtained (out of 100) in the Mathematics test by a class of 20 students.

Ans. a. 13 b. 6 c. Honey
d. Manoj e. 8 f. 39
g. 7 h. 25

4. The pictograph given below shows the number of vegetables, Kanika bought from the market.
Read the pictograph and answer the questions :

Ans. a. 5 b. Potatoes c. Carrots d. 6

5. Sanjana bought a big bouquet of flowers for her grandmother's birthday. Look at the table and answer the following questions.

Ans.

Flower	Number
lily	5
white rose	14
carnation	8
gerbera	21
red rose	25
anthurium	3

Flower	Number
red rose	25
gerbera	21
white rose	14
carnation	8
lily	5
anthurium	3

Now, look at your data and answer the following questions.

a. red rose b. anthurium c. 39 d. 76

6. Look at the picture and answer the question.
How many dancers are :

a. 4 b. 2 c. 3 d. 3

Patterns

14

Let's Review

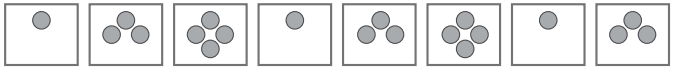
Do it yourself.

Exercise 14.1

1. Complete the patterns.

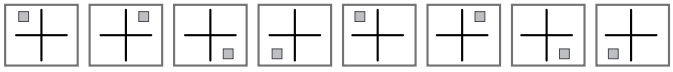
Ans. a.

b.

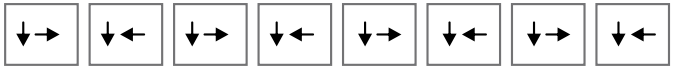


c.

d.



e.



2. Complete the given patterns.

Ans. a.

b.

c.

d.

3. Colour the white boxes. Complete the pattern.

Ans. Do it yourself.

Exercise 14.2

1. Study the patterns given below.

Ans. a. 555 b. 655 c. 755

2. Write the next three terns in each sequence. .

Ans. a. 12, 15, 18 b. 24, 29, 34 c. 30, 35, 40
d. 64, 128, 256 e. 43, 32, 21 f. 40, 37, 34

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. c.

Numbers beyond 999

1

Let's Review

A. Complete the puzzle :

Ans.

1. 7				
2. 1	2	3. 3		
1		9		4. 9
		5. 7	8	1
				4

B. Match the number and their names by colouring them alike :

Ans.

545	Eight hundred five	310	Five hundred fifteen	690
Green	Blue	Pink	White	Black
695	Five hundred forty-five	708	Six hundred ninety-five	
Red	Green	Yellow	Red	
Six hundred ninety	515	Three hundred ten	805	Seven hundred eight
Black	White	Pink	Blue	Yellow

Exercise 1.1

1. Write the numbers :

a.

Th	H	T	O
3	0	2	5

b.

Th	H	T	O
5	3	5	0

c.

Th	H	T	O
3	7	0	6

d.

Th	H	T	O
1	3	6	2

e.

Th	H	T	O
1	2	3	7

2. Count the beads and write the number and number name :

a.

Th	H	T	O
5	6	0	1

five thousand six hundred one.

b.

Th	H	T	O
7	3	8	5

seven thousand three hundred eighty five.

c.

Th	H	T	O
9	4	6	3

nine thousand four hundred sixty three.

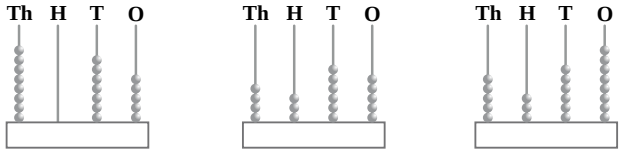
d.

Th	H	T	O
5	6	1	3

five thousand six hundred thirteen.

3. Represent the number on the abacus.

Ans. a. 8075 b. 4365 c. 5368



4. Write the number names.

Ans.
a. 3009 **Three thousand nine.**
b. 3750 **Three thousand seven hundred fifty.**
c. 8309 **Eight thousand three hundred nine.**
d. 4325 **Four thousand three hundred twenty five.**
e. 2156 **Two thousand one hundred fifty six.**
f. 4196 **Four thousand one hundred ninety six.**
g. 9460 **Nine thousand four hundred sixty.**
h. 5094 **Five thousand ninety four.**

Exercise 1.2

1. Write the place values of each digit :

Ans. a. 5 3 2 7 → 7, 20, 300, 5000

b. 2 8 0 6 → 6, 0, 800, 2000

c. 4 8 3 5 → 5, 30, 800, 4000

2. Write the place value of the coloured digit :

Ans.
a. 61**4**9 **40**
b. 9**1**42 **100**
c. **3**892 **3000**
d. 145**5** **5**
e. 4**6**95 **600**
f. **4**368 **4000**
g. 2**6**15 **600**
h. **8**712 **8000**
i. 8**2**16 **200**
h. 45**0**1 **0**

3. Write the following numbers in expanded form.

Ans.
a. 4680 = 4000 + 600 + 80
b. 3210 = 3000 + 200 + 10
c. 7690 = 7000 + 600 + 90
d. 5687 = 5000 + 600 + 80 + 7
e. 9080 = 9000 + 0 + 80
f. 2167 = 2000 + 100 + 60 + 7

4. Box the correct numeral.

a. 6340 6403 **[6043]**
b. **[403]** 430 4003
c. 5060 **[5006]** 5600
d. **[7090]** **[7009]** 7900
e. 800 **[8000]** 80
f. 3080 **[3800]** 3008
g. **[9590]** 9905 9095

Think And Do

Colour the number flowers in which the place value of.

Ans.

4 is 400	430	374	504	4375
8 is 80	708	6875	4780	5098
9 is 9000	9750	8900	493	9451
1 is 100	713	4841	5178	112
7 is 7	1870	1567	705	5007
6 is 6000	6325	5161	9608	6804

Exercise 1.3

1. Compare each pair of numbers, Put > or < in the ☐:

Ans.

a. 1573 < 2451 b. 5401 < 6400 c. 3795 < 4379

d. 2716 > 2713 e. 4995 < 4997 f. 113 < 1120

g. 4375 < 4376 h. 7830 > 7730 i. 9003 < 9008

j. 8592 < 9582 k. 2618 > 84 l. 6129 > 6058

2. Rewrite the numbers in increasing or ascending order.

Ans.

a. 1216 1234 1243 3106

b. 2929 9191 9292 9993

c. 2506 2736 3268 3716

d. 4586 5586 6658 7586

3. Rewrite the numbers in decreasing or descending order.

Ans.

a. 9675 7265 5625 2175

b. 5430 4350 3450 345

c. 9732 9432 9377 9237

d. 6592 2859 2759 2659

Think And Do

Round off to the nearest 10.

Ans. (a) 68 **70** (b) 82 **80**

(c) 94 **90** (d) 55 **60**

Exercise 1.4

1. Form the smallest and greatest numbers using the given digits.

Ans.

	Digits	Greatest Number	Smallest Number
a.	1,8,3,0	8310	1038
b.	9,3,5,4	9543	3459
c.	1,6,3,5	6531	1356
d.	1,5,9,7	9751	1579
e.	0,9,3,2	9320	2039

2. Round off to the nearest ten.

Ans.

a. 90	b. 60	c. 80	d. 60
e. 20	f. 40	g. 50	h. 60
i. 100	j. 20	k. 30	l. 20

3. Separate and write the even and odd numbers into their respected boxes.

Ans.

Even numbers	Odd numbers
2054, 2866, 856, 9876, 8178 328, 2156, 5158, 3198, 2460, 664, 198	579, 5649, 2001, 3431, 6075

4. Match the following.

Ans.

Number	Rounded off to nearest 10
a. 94	i. 50
b. 11	ii. 100
c. 46	iii. 70
d. 68	iv. 10
e. 95	v. 90

5. Write True or False.

Ans.

a. False	b. True	c. True
d. False	e. False	f. True

6. Write five numbers backward from the given numbers.

a. 5642, 5641, 5640, 5639, 5638

b. 9288, 9287, 9286, 9285, 9284

7. Two thousand fifteen students.

8. 1986 > 1896 So, school ***x*** has more students.

9. 160 people rounded of to nearest 10.

10. The greatest number is 8653 using digits 3, 5, 6 and 8.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. c. 4. b.

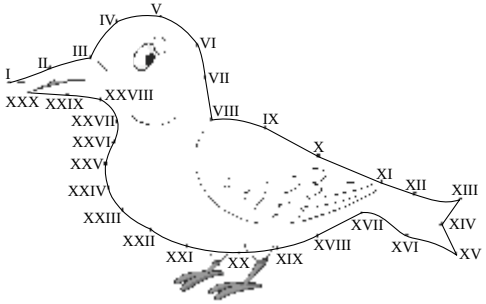
Roman Numerals

2

Let's Review

Join the dots in the ascending order and complete the picture. Also colour it.

Ans.



Exercise 2

1. Match the columns :

Ans.

Column 1		Column 2
a. 19	(i)	XXX
b. 15	(ii)	XVIII
c. 12	(iii)	XX
d. 8	(iv)	XXVII
e. 20	(v)	XIX
f. 18	(vi)	XV
g. 30	(vii)	XII
h. 27	(viii)	VIII

2. Write the number name for each of the following. Also write the corresponding Hindu. Arabic numeral.

Ans.

b.	seven	**7**	c.	thirty four	**34**
d.	fourteen	**14**	e.	thirty nine	**39**
f.	thirty five	**35**	g.	nineteen	**19**
h.	thirty one	**31**	i.	thirty	**30**
j.	eighteen	**18**			

3. Write True or False.

Ans. a. False b. True c. False d. True

4. Write the answers about yourself in Roman numerals.

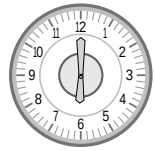
Ans. Do it yourself.

Think And Do

Write the time shown in the clocks.

Ans.

8 o'clock



6 o'clock

11 o'clock

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. a. 3. a. 4. c.

PLAY TIME

Read the message by decoding the Roman numeral.

Ans.

XIII	XXVI	XX	VIII	XIX
M	A	T	H	S

IX	XIX
I	S

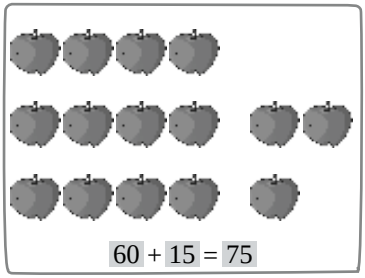
VI	XXI	XIV
F	U	N

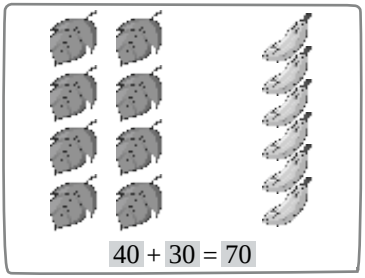
Ans. = Maths is fun.

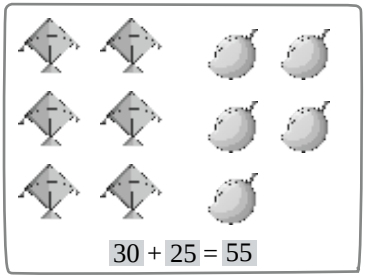
Let's Review

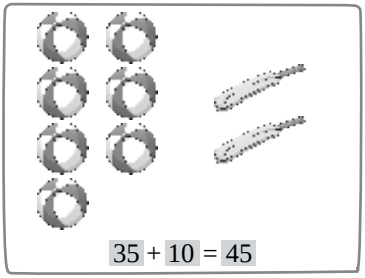
A. Addition is a process of combining collections or putting things together.

Ans. **Note :** One picture of each object represents five objects.


60 + 15 = 75

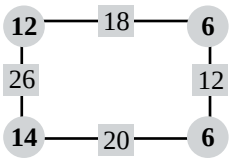

40 + 30 = 70


30 + 25 = 55


35 + 10 = 45

B. What are the missing numbers in the circles?

Ans.



Think And Do

Fill in the blanks using addition facts.

Ans.
1. 875 + **0** = 875
2. 154 + **0** = 154
3. 9231 + 0 = **9231**
4. 5349 + 1 = **5350**
5. 2321 + 1427 = **1427** + 2321
6. 1110 + **1230** = 1230 + **1110**

Exercise 3.1

1. Fill in the blanks :

Ans.
a. 0 + 454 = **454**
b. 8708 + **0** = 8708
c. 956 + 3794 = **3794** + 956
d. 8691 + 1 = **8692**

2. Add :

Ans. a.

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

b.

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

c.

Th	H	T	O
4	4	3	6
+ 2	5	3	2
6	9	6	8

d.

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

3. Arrange the following in columns and add.

Ans. a. 3316 + 2150 = 5466

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

b. 5217 + 1431 = 6648

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

c. 2425 + 5011 = 7436

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

d. 5143 + 3534 = 8677

Th	H	T	O
5	1	4	3
+ 3	5	3	4
8	6	7	7

e. 8000 + 1000 = 9000

Th	H	T	O
8	0	0	0
+ 1	0	0	0
9	0	0	0

f. 2364 + 7123 = 9487

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

g. 3567 + 4222 + 1000 = 8789

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

h. 3251 + 1403 + 4162 = 8816

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

i. 3726 + 2152 + 1011 = 6889

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

j. 4302 + 3024 + 2430 = 9756

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

Exercise 3.2

1. Add :

Ans. a.

Th	H	T	O
(1)	(1)	◯	
3	5	6	0
+ 4	8	5	7
8	4	1	7

b.

Th	H	T	O
(1)	◯	(1)	
2	5	2	8
+ 1	6	0	6
4	1	3	4

c.

Th	H	T	O
(1)	(1)	(1)	
5	3	5	7
+ 3	8	4	5
9	2	0	2

d.

Th	H	T	O
(1)	(1)	(1)	
8	4	2	9
+	6	7	5
9	1	0	4

2. Solve in your notebooks :

Ans. a. 6175 + 3250 = 9425

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

b. 7354 + 1487 = 8841

Th	H	T	O
	(1)	(1)	
7	3	5	4
+ 1	4	8	7
8	8	4	1

c. 5897 + 4033 = 9930

Th	H	T	O
	(1)	(1)	
5	8	9	7
+ 4	0	3	3
9	9	3	0

d. 4645 + 5276 = 9921

Th	H	T	O
	(1)	(1)	
4	6	4	5
+ 5	2	7	6
9	9	2	1

e. 1095 + 2345 = 3440

Th	H	T	O
	(1)	(1)	
1	0	9	5
+ 2	3	4	5
3	4	4	0

f. 5593 + 2330 = 7923

Th	H	T	O
	(1)		
5	5	9	3
+ 2	3	3	0
7	9	2	3

g. 4235 + 4583 = 8818

Th	H	T	O
	(1)		
4	2	3	5
+ 4	5	8	3
8	8	1	8

h. 5943 + 1268 = 7211

Th	H	T	O
(1)	(1)	(1)	
5	9	4	3
+ 1	2	6	8
7	2	1	1

i. 2740 + 3887 = 6627

Th	H	T	O
(1)	(1)		
2	7	4	0
+ 3	8	8	7
6	6	2	7

j. 5110 + 3987 = 9097

Th	H	T	O
	(1)		
5	1	1	0
+ 3	9	8	7
9	0	9	7

k. 8029 + 1375 = 9404

Th	H	T	O
	(1)	(1)	
8	0	2	9
+ 1	3	7	5
9	4	0	4

l. 6998 + 2235 = 9233

Th	H	T	O
(1)	(1)	(1)	
6	9	9	8
+ 2	2	3	5
9	2	3	3

m. 6374 + 2518 = 8892

Th	H	T	O
		(1)	
6	3	7	4
+ 2	5	1	8
8	8	9	2

n. 1999 + 6399 = 8398

Th	H	T	O
(1)	(1)	(1)	
1	9	9	9
+ 6	3	9	9
8	3	9	8

3. Add the following :

a.

Th	H	T	O
(1)	(1)	(1)	
2	3	4	9
3	5	4	1
+ 1	3	4	0
7	2	3	0

b.

Th	H	T	O
(2)	(2)	(1)	
1	9	4	5
1	4	7	0
+ 1	7	8	8
5	2	0	3

c.

Th	H	T	O
(1)		(2)	
2	1	6	9
1	2	1	4
+	8	0	9
4	1	9	2

d.

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

e.

Th	H	T	O
(1)			
	1	2	3
4	3	2	1
+	9	1	4
5	3	5	8

f.

Th	H	T	O
(1)	(1)	(1)	
1	3	8	8
2	1	8	8
+ 1	8	2	0
5	3	9	6

4. Add the following numbers :

a. 9237 + 1085 + 4827 = 15149

Th	H	T	O
(1)	(1)	(1)	
9	2	3	7
1	0	8	5
+ 4	8	2	7
15	1	4	9

b. 1326 + 2108 + 9046 = 12480

Th	H	T	O
		(2)	
1	3	2	6
2	1	0	8
+ 9	0	4	6
12	4	8	0

c. 2658 + 2196 + 1929 = 6783

Th	H	T	O
(1)	(1)	(2)	
2	6	5	8
2	1	9	6
+ 1	9	2	9
6	7	8	3

d. 3013 + 1580 + 2607 = 7200

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

Exercise 3.3

1. First find the actual sum and then estimated sum :

Ans. a.

4	7	→	5	0
+ 1	3	→	+ 1	0
6	0		6	0

b.

3	5	→	4	0
+ 4	5	→	+ 5	0
8	0		9	0

c.

2	4 3	→	2	4 0
+ 6	9 1	→	+ 6	9 0
9	3 4		9	3 0

d.

3	6 6	→	3	7 0
+ 5	9 2	→	+ 5	9 0
9	5 8		9	6 0

2. Estimate the sum to the nearest 10's by first rounding off the numbers. :

Ans. a. Rounding off the numbers to the nearest 10's

348 ⟶ 350
472 ⟶ 470 Ans : 820

Actual sum = 820
Estimated sum = **820**

b. Rounding off the numbers to the nearest 10's

2651 ⟶ 2650
1279 ⟶ 1280 Ans : 3930

Actual sum = 3930
Estimated sum = **3930**

c. Rounding off the numbers to the nearest 10's

1295 ⟶ 1300
2365 ⟶ 2370 Ans : 3670

Actual sum = 3660
Estimated sum = **3670**

Higher Order Thinking skills

Ans. Hariti has 3565 stamps, Noni has 3745 stamps and Mohan has 3575 so, Hariti, Noni and Manan have 10,885 stamps and Noni has the most number of stamps.

Exercise 3.4

1. Ans. 5792 clocks produced in both days.

Th	H	T	O
3	2	2	1
+ 2	5	7	1
5	7	9	2

2. Ans. There are 8002 people in all in the village.

Th	H	T	O
(1)	(2)	(1)	
1	5	9	2
1	1	4	2
+ 5	2	6	8
8	0	0	2

3. Ans. There were 1643 students in school in 2019.

Th	H	T	O
	(1)	(1)	
1	4	5	4
+	1	8	9
1	6	4	3

4. Ans. Both booths contain 3025*l* milk.

Th	H	T	O
(1)	(1)	(1)	
1	7	4	5
+ 1	2	8	0
3	0	2	5

5. Ans. Mr Roshan's montly income is `8675.

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

6. Ans. There are 233 people in both compartments.

H	T	O
1	2	1
+ 1	1	2
2	3	3

7. Ans. There are 947 packets of milk in the dairy.

H	T	O
(1)		
6	5	0
+ 2	9	7
9	4	7

8. Ans. There are 1437 students in present in the school.

H	T	O
(1)		
8	7	5
+ 5	6	2
1	4	3	7

MULTIPLE CHOICE QUESTIONS

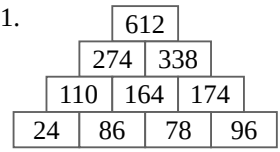
Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. a.

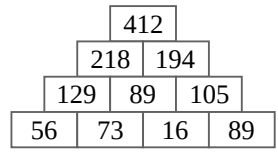
Think And Do

Complete the addition towers.

Ans. 1.



2.



Let's Review

Cricket World Cup 2019

These are 5 top scorers of ICC World Cup 2019 :
Now, answer the following questions :

Ans. **a. Ans.** Rohit Sharma **b.**

	H	T	O
	⑤	⑭	
	~~6~~	~~4~~	8
–	5	5	6
	0	9	2

Ans. Difference is 92 runs. **c.**

	H	T	O
	⑤	⑭	
	~~6~~	~~4~~	7
–	5	5	6
	0	9	1

Ans. David Warner **d.**

	H	T	O
	~~6~~	~~4~~	8
–	6	0	6
		4	2

Ans. 42 runs

Higher Order Thinking skills

Fill the missing numbers.

Ans. 1.

	Th	H	T	O
	8	⑨	3	6
–	3	3	2	④
	⑤	6	①	2

2.

	Th	H	T	O
	6	⑦	3	⑥
–	2	2	1	2
	④	5	②	4

3.

	Th	H	T	O
		⑨	3	⑨	8
–	7	②	8	6
	2	1	1	2

Exercise 4.1

1. Fill in the blanks :

Ans. a. 4569 – 4569 = **0** b. 358 – 1 = **357**
c. 2974 – **2974** = 0 d. 7414 – **0** = 7414

2. Find the difference in each of the following :

Ans. a.

	Th	H	T	O
	6	8	9	8
–	4	2	4	7
	2	6	5	1

b.

	Th	H	T	O
	4	6	7	5
–	2	4	2	2
	2	2	5	3

c.

	Th	H	T	O
	9	5	2	9
–	6	2	0	8
	3	3	2	1

d.

	Th	H	T	O
	3	4	4	4
–	1	2	1	2
	2	2	3	2

e.

	Th	H	T	O
	⑥	⑬	④	⑯
	~~7~~	~~3~~	~~5~~	~~6~~
–	2	4	2	9
	4	9	2	7

f.

	Th	H	T	O
	⑦	⑭	⑤	⑮
	8	4	6	5
–	5	6	2	8
	2	8	3	7

g.

	Th	H	T	O
		⑤	⑮	
	8	6	5	3
–	3	2	7	2
	5	3	8	1

h.

	Th	H	T	O
		⑥	⑬	⑫
	5	~~7~~	~~4~~	~~2~~
–	2	3	5	4
	3	3	8	8

3. Write the numbers in the columns and subtract.

Ans. a. 5346 – 1204 = 4142

	Th	H	T	O
	5	3	4	6
–	1	2	0	4
	4	1	4	2

b. 9658 – 7247 = 2411

	Th	H	T	O
	9	6	5	8
–	7	2	4	7
	2	4	1	1

c. 6746 – 1623 = 5123

	Th	H	T	O
	6	7	4	6
–	1	6	2	3
	5	1	2	3

d. 8798 – 5167 = 3631

	Th	H	T	O
	8	7	9	8
–	5	1	6	7
	3	6	3	1

e. 7864 – 2416 = 5448

Th	H	T	O
		5	14
7	8	6	4
– 2	4	1	6
5	4	4	8

f. 8543 – 8423 = 120

Th	H	T	O
8	5	4	3
– 8	4	2	3
	1	2	0

Exercise 4.2

1. Find the difference :

Ans. a.

Th	H	T	O
4	15	15	
5	6	~~5~~	6
– 4	8	9	2
0	7	6	4

b.

Th	H	T	O
6	11	6	12
~~7~~	~~1~~	~~7~~	~~2~~
– 3	4	2	3
3	7	4	9

c.

Th	H	T	O
7	13	13	13
~~8~~	~~4~~	~~4~~	~~3~~
– 3	6	5	5
4	7	8	8

d.

Th	H	T	O
	5	11	11
7	~~6~~	~~2~~	~~1~~
– 1	0	3	4
6	5	8	7

e.

Th	H	T	O
	6	14	
8	~~7~~	~~4~~	5
– 4	1	8	2
4	5	6	3

f.

Th	H	T	O
	7	10	13
9	8	1	3
– 2	3	5	7
7	4	5	6

2. Find the difference in each of the following :

Ans. a.

H	T	O
5	9	14
~~6~~	~~0~~	~~4~~
–	9	5
5	0	9

b.

H	T	O
8	9	10
~~9~~	~~0~~	~~0~~
– 5	0	5
3	9	5

c.

H	T	O
6	11	10
~~7~~	~~2~~	~~0~~
– 2	7	4
4	4	6

d.

Th	H	T	O
8	10	9	10
9	1	0	0
– 6	2	3	9
2	8	6	1

e.

Th	H	T	O
7	9	9	10
8	0	0	0
– 7	1	8	6
0	8	1	4

f.

Th	H	T	O
4	9	9	10
5	0	0	0
– 3	7	9	9
1	2	0	1

3. User shortcut to subtract.

Ans. a.

Th	H	T	O
6	11	16	
~~7~~	~~2~~	~~6~~	3
– 4	2	7	1
2	9	9	2

b.

Th	H	T	O
		6	13
8	5	~~7~~	3
– 3	4	6	6
5	1	0	7

c.

Th	H	T	O
	3	11	
5	4	1	5
– 2	3	7	4
3	0	4	1

d.

Th	H	T	O
	3	12	13	12
4	3	4	2
– 2	3	4	3
1	9	9	9

e. 7000 – 6459 = 541

Subtract 1 from both sides

7000 – 1 =

6459 – 1 =

Th	H	T	O
6	9	9	9
– 6	4	5	8
	5	4	1

f. 9000 – 7864 = 1136

Subtract 1 from both sides

9000 – 1 =

7864 – 1 =

Th	H	T	O
8	9	9	9
– 7	8	6	3
1	1	3	6

g. 8000 – 6927 = 1073
Subtract 1 from both sides
8000 – 1 =
6927 – 1 =

Th	H	T	O
7	9	9	9
– 6	9	2	6
1	0	7	3

h. 4000 – 2125 = 1875
Subtract 1 from both sides
4000 – 1 =
2125 – 1 =

Th	H	T	O
3	9	9	9
– 2	1	2	4
1	8	7	5

i. 3000 – 1050 = 1950
Subtract 1 from both sides
3000 – 1 =
1050 – 1 =

Th	H	T	O
2	9	9	9
– 1	0	4	9
1	9	5	0

j. 6000 – 2340 = 3660
Subtract 1 from both sides
6000 – 1 =
2340 – 1 =

Th	H	T	O
5	9	9	9
– 2	3	3	9
3	6	6	0

Exercise 4.3

Subtract each of the following and check the answers by addition.

Ans. 1.

H	T	O
(7)	(13)	
~~8~~	~~3~~	6
– 6	8	5
1	5	1

Check

H	T	O
(1)		
1	5	1
+ 6	8	5
8	3	6

2.

H	T	O
(6)	(9)	(10)
7	0	0
– 6	3	1
	6	9

Check

H	T	O
(1)	(1)	
	6	9
+ 6	3	1
7	0	0

3.

Th	H	T	O
	(2)	(15)	(10)
5	3	6	0
– 3	1	6	8
2	1	9	2

Check

Th	H	T	O
	(1)	(1)	
2	1	9	2
+ 3	1	6	8
5	3	6	0

4.

Th	H	T	O
	(3)	(9)	(10)
8	4	0	0
– 4	1	1	6
4	2	8	4

Check

Th	H	T	O
	(1)	(1)	
4	2	8	4
+ 4	1	1	6
8	4	0	0

5.

Th	H	T	O
	(7)	(9)	(12)
6	8	0	2
– 5	4	9	8
1	3	0	4

Check

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

6.

Th	H	T	O
	(4)	(9)	(10)
6	5	0	0
– 4	3	8	9
2	1	1	1

Check

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

Exercise 4.4

1. Solve the following.

Ans. a. 349 + 683 – 472 = 560

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

Th	H	T	O
	(0)	(9)	(13)
1	0	3	2
–	4	7	2
	5	6	0

c. 1594 + 2061 – 1998 = 1657

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

Th	H	T	O
	(2)	(15)	(14)	(15)
~~3~~	~~6~~	~~5~~	~~5~~
– 1	9	9	8
1	6	5	7

b. 4645 – 3878 + 1750 = 2517

Th	H	T	O
(1)			
4	6	4	5
+1	7	5	0
6	3	9	5

Th	H	T	O
(5)	(13)	(8)	(15)
6	3	9	5
– 3	8	7	8
2	5	1	7

d. 3165 + 350 – 2173 = 1342

Th	H	T	O
	(1)		
3	1	6	5
+	3	5	0
3	5	1	5

Th	H	T	O
	(4)	(11)	
3	5	1	5
– 2	1	7	3
1	3	4	2

2. Estimate the answer by rounding off the numbers. solve to check your answer.

Ans. a.

(7)(12)(11)
~~8 3 1~~ rounds to 10's → (7)(13) ~~8 3~~ 0
– 2 6 5 rounds to 10's → – 2 7 0
5 6 6 → 5 6 0

b.

(8)(9)(13)
~~9 0 3~~ rounds to 10's → (8)(10) ~~9 0 0~~
– 4 5 9 rounds to 10's → – 4 6 0
4 4 4 → 4 4 0

c.

(7)(16)
5 ~~8 6~~ rounds to 10's → 5 9 0
– 3 7 8 rounds to 10's → – 3 8 0
2 0 8 → 2 1 0

d.

(6)(13)(10)
~~7 4 0~~ rounds to 10's → (6)(14) ~~7 4~~ 0
– 3 7 5 rounds to 10's → – 3 8 0
3 6 5 → 3 6 0

Higher Order Thinking skills

Ans. A shopkeeper had 135 eggs out of them he sold 78 eggs. How many eggs are left with him now?

(12)(15)
~~1 3 5~~ eggs
– 7 8 eggs
5 7 eggs

Exercise 4.5

Subtract and do the following sums.

Ans. 1. Total passengers at railway station =
Boarded passengers from railway station =
passengers from railway station =

Th	H	T	O
	(1)	(15)	(17)
2	6	7	9
– 1	6	8	5
	9	9	4

Ans. 994 passengers are still waiting.

2. Total people = 5 9 2 6
Men = 1 0 6 5
Children = + 2 2 0 5
Total of man and children = 3 2 7 0
\ Number of women = 5926 – 3270
= 2656

Th	H	T	O
	(8)	(12)	
5	9	2	6
– 3	2	7	0
2	6	5	6

Ans. The number of women are 2656.

3. 9000 > 8592
Cost of T.V. set = `
Cost of washing machine = `
=

Th	H	T	O
(8)	(9)	(9)	(10)
9	0	0	0
– 8	5	9	2
`	4	0	8

Ans. The cost of T.V. set is ` 408 more than washing machine

4. Total savings in both months = `(3563 + 4218)
= ` 7 7 8 1
Total expenditure = – ` 6 0 1 0
Money is still left with Vineet = ` 1 7 7 1

Th	H	T	O
	(1)		
` 3	5	6	3
+ ` 4	2	1	8
` 7	7	8	1

Ans. `1771 are still left with Vineet.

5. A man has sweets = 4000
Total distribute sweets = (1356 + 2000)
= 3356
Sweets are left = 4000 – 3356
= 644

Th	H	T	O
3	9	9	10
4	0	0	0
– 3	3	5	6
	6	4	4

Ans. 644 sweets are left with the man.

6. The cost of shoes = ` 2549
Anita has = – ` 2199
She needs more money to buy the shoes = ` 350

Th	H	T	O
	4	14	
` 2	5	4	9
– ` 2	1	9	9
`	3	5	0

Ans. Amita needs ` 350 to buy the shoes.

7. Rahul has total books = 1000
Given away books = – 456
Books will have left with Rahul = 544

Th	H	T	O
0	9	9	10
1	0	0	0
–	4	5	6
	5	4	4

8. Total of red and yellow rises = 4500
Only yellow roses = – 2678
\ Number of red roses = 1822

Th	H	T	O
3	14	9	10
4	5	0	0
– 2	6	7	8
1	8	2	2

Ans : There are 1822 red roses in the garden.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. b. 3. a. 4. a.

PLAY TIME

Colour the clouds red if the answer is a 1-digit number, green if it is a 2-digit number and yellow if it is a 3-digit number. One has been done for you.

Ans.

366 – 326 = 040 **Green**	433 – 222 = 211 **Yellow**	435 – 434 = 001 **Red**
5154 – 4374 = 780 **Yellow**	999 – 222 = 777 **Yellow**	1796 – 1787 = 0009 **Red**
6544 – 6524 = 0020 **Green**	4873 – 4406 = 467 **Yellow**	6189 – 6182 = 0007 **Red**

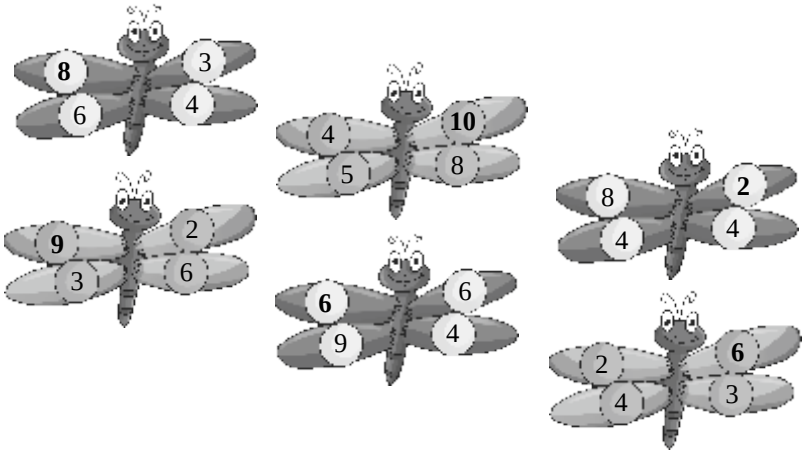
Multiplication

5

Let's Review

A. Fill in the missing numbers so that the answer you get by multiplying the two numbers on the bottom wings will be the same as the answer you get by multiplying the numbers on the top wings.

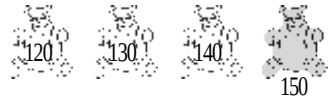
Ans.



B. Colour the right answer teddy :

Ans. 1. 4 times 17 is :

2. The product of 3 and 50 is :



Exercise 5.1

1. Fill in the blanks :

Ans.
a. $\mathbf{0} \times 6394 = 0$
b. $92 \times 57 = \mathbf{57} \times 92$
c. $119 \times 1 = \mathbf{119}$
d. $424 \times 0 = \mathbf{0}$
e. $0 \times 639 = \mathbf{0}$
f. $1 \times 370 = \mathbf{370}$
g. $16 \times 27 \times 0 = \mathbf{0}$
h. $17 \times 15 \times 9 = 15 \times \mathbf{9} \times 17$
i. $4914 \times \mathbf{1} = 4914$
j. $190 \times 457 = \mathbf{457} \times 190$

2. Write the multiplication fact :

Ans.
a. $6 + 6 + 6 = 18$ fi $3 \times 6 = 18$
b. $20 + 20 + 20 + 20 + 20 = 100$ fi $5 \times 20 = 100$
c. $5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$ fi $7 \times 5 = 35$
d. $3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 27$ fi $9 \times 3 = 27$

3. Find the product:

Ans.

a.

	T	O
	①	
	3	5
×		2
	7	0

b.

	T	O
	①	
	2	6
×		3
	7	8

c.

	T	O
	③	
	1	9
×		4
	7	6

d.

	T	O
	②	
	7	4
×		5
	3	7 0

e.

	T	O
	2	1
×		3
	6	3

f.

	T	O
	2	2
×		4
	8	8

g.

	T	O
	3	2
×		3
	9	6

h.

	T	O
	3	3
×		2
	6	6

i.

T	O
3	4
×	2
6	8

j.

T	O
5	3
×	1
5	3

k.

T	O
2	1
×	4
8	4

l.

T	O
2	3
×	3
6	9

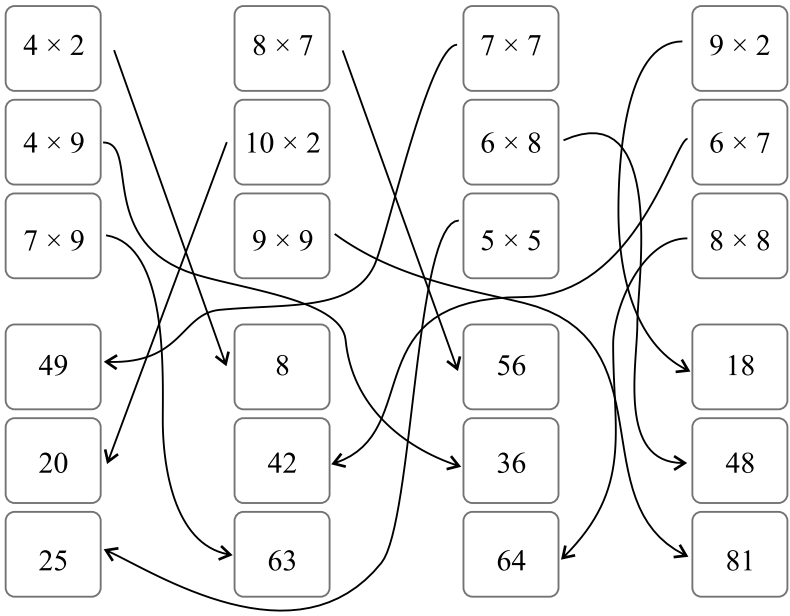
PLAY TIME

Ans. Monty had more money.

Exercise 5.2

1. Draw a line to match the numbers to the correct multiplication fact:

Ans.



2. Complete the grid and find the multiplication facts:

Ans.

8 × 3

×	5	8	11	15	10	16	20	18	13
1	5	8	11	15	10	16	20	18	13
2	10	16	22	30	20	32	40	36	26
3	15	24	33	45	30	48	60	54	39
4	20	32	44	60	40	64	80	72	52
5	25	40	55	75	50	80	100	90	65
6	30	48	66	90	60	96	120	108	78
7	35	56	77	105	70	112	140	126	91
8	40	64	88	120	80	128	160	144	104
9	45	72	99	135	90	144	180	162	117
10	50	80	110	150	100	160	200	180	130

Exercise 5.3

1. Multiply the following :

Ans. a.

H	T	O
	(7)	
	2	8
	×	9
2	5	2

b.

H	T	O
	(3)	
	4	5
	×	6
2	7	0

c.

H	T	O
	◯	
1	2	0
	×	4
4	8	0

d.

H	T	O
	◯	
1	3	3
	×	3
3	9	9

e.

Th	H	T	O
	◯	◯	
	3	1	0
		×	2
	6	2	0

f.

Th	H	T	O
	◯	◯	
	2	0	0
		×	5
1	0	0	0

g.

Th	H	T	O
	◯	(1)	
	3	2	6
		×	2
	6	5	2

h.

Th	H	T	O
	(1)	◯	
	2	9	4
		×	2
	5	8	8

Project

Ans. Do it yourself.

Exercise 5.4

1. Multiply the following :

Ans. a.

Th	H	T	O
3	3	1	2
		×	3
9	9	3	6

b.

Th	H	T	O
2	3	2	0
		×	2
4	6	4	0

c.

Th	H	T	O
1	2	2	2
		×	4
4	8	8	8

d.

Th	H	T	O
(1)	(2)	(5)	
1	2	3	9
		×	6
7	4	3	4

e.

Th	H	T	O
(1)	(3)	(1)	
1	3	8	4
		×	4
5	5	3	6

f.

Th	H	T	O
		(2)	
1	0	1	5
		×	5
5	0	7	5

2. Multiply the following and write the answer in the box.:

Ans. a.

Th	H	T	O
2	2	3	1
		×	3
6	6	9	3

b.

Th	H	T	O
1	1	0	1
		×	5
5	5	0	5

c.

Th	H	T	O
2	3	1	4
		×	2
4	6	2	8

d.

Th	H	T	O
	(2)	(2)	
1	9	7	2
		×	3
5	9	1	6

e.

Th	H	T	O
	(1)		
1	0	4	1
		×	4
4	1	6	4

f.

Th	H	T	O
(1)	(1)	(2)	
2	4	3	5
		×	4
9	7	4	0

g.

Th	H	T	O
	(2)	(3)	
1	4	6	0
		×	6
8	7	6	0

h.

Th	H	T	O
3	1	1	4
		×	2
6	2	2	8

i.

Th	H	T	O
	(1)	(3)	
2	0	3	9
		×	4
8	1	5	6

j.

Th	H	T	O
(1)	(1)	(4)	
1	2	1	7
		×	7
8	5	1	9

k.

Th	H	T	O
	(1)	(1)	
4	1	7	5
		×	2
8	3	5	0

l.

Th	H	T	O
		(1)	
4	1	3	5
		×	2
8	2	7	0

Exercise 5.5

1. Multiply the following :

Ans. a.

	5	6
×	4	2
	1	1	2
+ 2	2	4	0
2	3	5	2

b.

	7	3
×	4	9
	6	5	7
+ 2	9	2	0
3	5	7	7

c.

	2	7
×	1	3
	8	1
+ 2	7	0
3	5	1

d.

	2	4
×	2	8
	1	9	2
+ 4	8	0
6	7	2

2. Solve in your notebook :

Ans. a.

	7	4
×	1	6
	4	4	4
+ 7	4	0
1	1	8	4

b.

	6	5
×	2	7
	4	5	5
+ 1	3	0	0
1	7	5	5

c.

	5	1
×	4	8
	4	0	8
+ 2	0	4	0
2	4	4	8

d.

	6	7
×	2	5
	3	3	5
+ 1	3	4	0
1	6	7	5

e.

	6	9
×	5	3
	2	0	7
+ 3	4	5	0
3	6	5	7

f.

	4	8
×	3	8
	3	8	4
+ 1	4	4	0
1	8	2	4

g.

	6	0
×	4	2
	1	2	0
+ 2	4	0	0
2	5	2	0

h.

	9	3
×	5	7
	6	5	1
+ 4	6	5	0
5	3	0	1

i.

	3	8	4
×	2	5
1	9	2	0
+ 7	6	8	0
9	6	0	0

j.

	2	4	5
×	2	3
	7	3	5
+ 4	9	0	0
5	6	3	5

k.

	3	3	5
×	1	9
3	0	1	5
+ 3	3	5	0
6	3	6	5

l.

	7	2
×	2	8
	5	7	6
+ 1	4	4	0
2	0	1	6

m.

	2	4	9
×	3	4
	9	9	6
+ 7	4	7	0
8	4	6	6

n.

	1	8	6
×	3	6
1	1	1	6
+ 5	5	8	0
6	6	9	6

o.

	1	5	8
×	5	4
	6	3	2
+ 7	9	0	0
8	5	3	2

p.

	4	9	4
×	1	8
3	9	5	2
+ 4	9	4	0
8	8	9	2

Exercise 5.6

1. Fill in the boxes :

Ans.

a.	990	b.	160	c.	30	d.	5400	e.	960
f.	4760	g.	600	h.	700	i.	270	j.	5400
k.	800	l.	3900	m.	6100	n.	5610	o.	1000

Exercise 5.7

1. Each cupboard has = 1055 books
Total number of cupboards = 6
\ Total number of book = 1055 × 6 = 6330 books
Ans : There are 6330 books in the library.

2. The cost of 1 toy car = `48
The cost of 3 toy cars = ` (48 × 3)
= `144
Ans : Vicky will pay `144.

3. The cost of 1 book = `295
The cost of 4 books = (295 × 4) = `1180.
Ans : Vicky will get `1180.

4. The weight of 1 book = 1260 g
Weight of 7 books = 1260 × 7 g
= 1260 × 7 g
= 8820 g
= 8 kg 820 g.
\ Total weight of 7 books is 8 kg 820 g.

5. 1 news paper has pages = 28
45 news paper have = 28 × 45 pages
= 1260 pages

		2	8
	×	4	5
	1	4	0
+	1	1	2	0
	1	2	6	0

6. A truck has 86 bags of rice
Each bag of rice has wt. = 32 kg
\ 86 bags of rice have wt = 32 × 86 kg = 2752 kg.
\ The total weight of rice is 2752 kg in the truck.

7. 1 Child paid at the entrance = `75
\ 25 children paid at the entrance = `(75 × 25) = `1875
\ `1875 were paid at the entrance.

8. 1 bouquet has flowers = 43
\ 8 bouquets have flowers = 43 × 8 = 344 flowers
\ 344 flowers used for making 8 bouquets.

Think And Do

Fill in the blanks.

Ans. 1. 4, 1096 2. 989 3. 7290 4. 17 5. 0

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. c. 4. a.

PLAY TIME

Multiply. Use your answer to find the message.

Ans.

H	T	O	
	4	2	
×		7	
2	9	4	V

H	T	O	
	3	5	
×	2	5	
1	7	5	
7	0	0	
8	7	5	W

H	T	O	
1	2	0	
	×	4	
4	8	0	A

H	T	O	
	3	7	6
		×	9
3	3	8	4	E

Th	H	T	O	
	2	8	5	
	×	3	2	
	5	7	0	
8	5	5	0	
9	1	2	0	S

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

Th	H	T	O	
	1	1	8	
	×	6	7	
	8	2	6	
7	0	8	0	
7	9	0	6	R

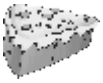
S	A	V	E
9120	480	294	3384

W	A	T	E	R
875	480	9614	3384	7906

Let's Review

Fill in the last column.

Ans.

	Food Items	Number of children who want it	Number that each will get.
(a)	24 	12	**2**
(b)	16 	8	**2**
(c)	27 	9	**3**
(d)	20 	10	**2**
(e)	80 	10	**8**
(f)	8 	8	**1**

Exercise 6.1

1. Find out how many children will get the apples.

Ans. a. Each child gets 12 apples.

24  in equal groups of 12 = **2** groups.

24 ÷ 12 = **2**; **2** children will get 12 apples each.

b. Each child gets 4 apples.

24  in equal groups of 4 = **6** groups

24 ÷ 4 = **6**; **6** children will get 4 apples each.

c. Each child gets 3 apples.

24  in equal groups of 3 = **8** groups

24 ÷ 3 = **8**; **8** children will get 3 apples each.

When we make equal groups, we know how many are in each group.

2. Now, divided the following using the repeated subtraction method.

Ans. a. 25 ÷ 5

25 – 5 = 20 — 1 time
20 – 5 = 15 — 2 times
15 – 5 = 10 — 3 times
10 – 5 = 5 — 4 times
5 – 5 = 0 — 5 times

∴ 25 ÷ 5 = 5

b. 16 ÷ 4

16 – 4 = 12 — 1 time
12 – 4 = 8 — 2 times
8 – 4 = 4 — 3 times
4 – 4 = 0 — 4 times

∴ 16 ÷ 4 = 4

c. 12 ÷ 4

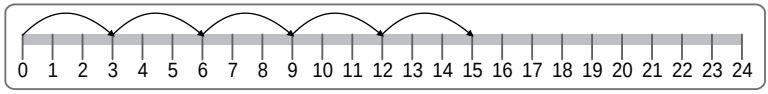
12 – 4 = 8 — 1 time
8 – 4 = 4 — 2 times
4 – 4 = 0 — 3 times

∴ 12 ÷ 4 = 3

Exercise 6.2

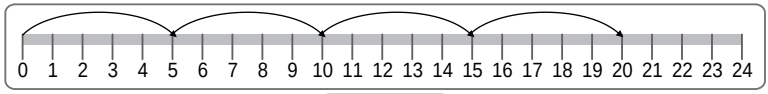
1. Now, solve the following on the number line.

Ans. a. $15 \div 3$



$15 \div 3 = 5$

b. $20 \div 5$



$20 \div 5 = 4$

Exercise 6.3

1. Now, complete the following table. One has been done for you.

Ans.

S.No.	Equation	Dividend	Divisor	Quotient
a	$2\overline{)18}$ (9)	18	2	9
b	$3\overline{)18}$ (6)	18	3	6
c	$5\overline{)15}$ (3)	15	5	3
d	$4\overline{)20}$ (5)	20	4	5
e	$9\overline{)18}$ (2)	18	9	2

2. Fill in the blanks :

Ans. a. $15 \div 1 =$ **15** b. $21 \div$ **1** $= 21$ c. $12 \div$ **12** $= 1$

d. $0 \div 7 =$ **0** e. $7 \div 1 =$ **7** f. $0 \div 20 =$ **0**

g. $18 \div 18 =$ **1** h. $9 \div 0 =$ **meaningless**

i. $42 \div 42 =$ **1**

3. Match the columns.

Ans.

	QUOTIENT	QUESTION	REMAINDER
a.	6	$4\overline{)36}$	1
b.	5	$8\overline{)65}$	3
c.	9	$7\overline{)45}$	4
d.	4	$6\overline{)26}$	0
e.	8	$9\overline{)49}$	2

Exercise 6.4

1. Write two division facts for each multiplication fact :

Ans. a. $6 \times 4 =$ **24** $24 \div 4 =$ **6** $24 \div 6 =$ **4**

b. $3 \times 4 =$ **12** $12 \div 3 =$ **4** $12 \div 4 =$ **3**

c. $5 \times 3 =$ **15** $15 \div 3 =$ **5** $15 \div 5 =$ **3**

d. $5 \times 6 = \mathbf{30}$ $30 \div 6 = \mathbf{5}$ $30 \div 5 = \mathbf{6}$

e. $4 \times 5 = \mathbf{20}$ $20 \div 5 = \mathbf{4}$ $20 \div 4 = \mathbf{5}$

Higher Order Thinking skills

Ans. 72 chocolates.

Exercise 6.5

1. Now, solve the following in your notebook.

Ans. a.

$$\begin{array}{r} 9 \\ 9\overline{)\,8\;1} \\ -\;8\;1 \\ \hline 0 \end{array}$$

$81 \div 9 = 9$

b.

$$\begin{array}{r} 9 \\ 5\overline{)\,4\;5} \\ -\;4\;5 \\ \hline 0 \end{array}$$

$45 \div 5 = 9$

c.

$$\begin{array}{r} 9 \\ 4\overline{)\,3\;6} \\ -\;3\;6 \\ \hline 0 \end{array}$$

$36 \div 4 = 9$

d.

$$\begin{array}{r} 9 \\ 3\overline{)\,2\;7} \\ -\;2\;7 \\ \hline 0 \end{array}$$

$27 \div 3 = 9$

e.

$$\begin{array}{r} 3 \\ 8\overline{)\,2\;4} \\ -\;2\;4 \\ \hline 0 \end{array}$$

$24 \div 8 = 3$

f.

$$\begin{array}{r} 5 \\ 5\overline{)\,2\;5} \\ -\;2\;5 \\ \hline 0 \end{array}$$

$25 \div 5 = 5$

g.

$$\begin{array}{r} 13 \\ 3\overline{)\,3\;9} \\ -\;3 \\ \hline 0\;9 \\ -\;9 \\ \hline 0 \end{array}$$

$39 \div 3 = 13$

h.

$$\begin{array}{r} 5 \\ 7\overline{)\,3\;5} \\ -\;3\;5 \\ \hline 0 \end{array}$$

$35 \div 7 = 5$

i.

$$\begin{array}{r} 6 \\ 5\overline{)\,3\;0} \\ -\;3\;0 \\ \hline 0 \end{array}$$

$30 \div 5 = 6$

j.

$$\begin{array}{r} 6 \\ 6\overline{)\,3\;6} \\ -\;3\;6 \\ \hline 0 \end{array}$$

$36 \div 6 = 6$

Exercise 6.6

1. Divide the following.

Ans. a.

$$\begin{array}{r} 213 \\ 3\overline{)639} \\ -\;6\downarrow \\ \hline 03 \\ -\;3\downarrow \\ \hline 09 \\ -\;9 \\ \hline 0 \end{array}$$

$639 \div 3 = 213$

b.

$$\begin{array}{r} 211 \\ 4\overline{)844} \\ -\;8\downarrow \\ \hline 04 \\ -\;4\downarrow \\ \hline 04 \\ -\;4 \\ \hline 0 \end{array}$$

$844 \div 4 = 211$

c.

$$\begin{array}{r} 111 \\ 5\overline{)555} \\ -\;5\downarrow \\ \hline 05 \\ -\;5\downarrow \\ \hline 05 \\ -\;5 \\ \hline 0 \end{array}$$

$555 \div 5 = 111$

d.

$$\begin{array}{r} 412 \\ 2\overline{)824} \\ -\;8\downarrow \\ \hline 02 \\ -\;2\downarrow \\ \hline 04 \\ -\;4 \\ \hline 0 \end{array}$$

$824 \div 2 = 412$

e.

$$\begin{array}{r} 112 \\ 4\overline{)448} \\ -\;4\downarrow \\ \hline 04 \\ -\;4\downarrow \\ \hline 08 \\ -\;8 \\ \hline 0 \end{array}$$

$448 \div 4 = 112$

f.

$$\begin{array}{r} 204 \\ 2\overline{)408} \\ -\;4\downarrow \\ \hline 00 \\ -\;0\downarrow \\ \hline 08 \\ -\;8 \\ \hline 0 \end{array}$$

$408 \div 2 = 204$

g.

$$\begin{array}{r} 200 \\ 4\overline{)800} \\ -\;8\downarrow \\ \hline 00 \\ -\;0\downarrow \\ \hline 00 \\ -\;0 \\ \hline 0 \end{array}$$

$800 \div 4 = 200$

h.

$$\begin{array}{r} 211 \\ 3\overline{)633} \\ -\;6\downarrow \\ \hline 03 \\ -\;3\downarrow \\ \hline 03 \\ -\;3 \\ \hline 0 \end{array}$$

$633 \div 3 = 211$

Exercise 6.7

1. Divide the following and find the quotient and remainder.

Ans.

a. $5 \overline{)55}$ = 11
– 5
05
– 5
0
Q = 11
R = 0

b. $4 \overline{)27}$ = 6
– 24
03
Q = 6
R = 3

c. $9 \overline{)47}$ = 5
– 45
2
Q = 5
R = 2

d. $5 \overline{)36}$ = 7
– 35
1
Q = 7
R = 1

e. $6 \overline{)53}$ = 8
– 48
5
Q = 8
R = 5

f. $7 \overline{)69}$ = 9
– 63
6
Q = 9
R = 6

g. $8 \overline{)58}$ = 7
– 56
2
Q = 7
R = 2

h. $3 \overline{)18}$ = 6
– 18
06
Q = 6
R = 0

Exercise 6.8

1. Now, divide the following :

Ans.

a. $3 \overline{)34}$ = 11
– 3↓
04
– 3
1
Q = 11, R = 1

b. $5 \overline{)23}$ = 4
– 20
3
Q = 4, R = 3

c. $8 \overline{)894}$ = 111
– 8↓
09
– 8
14
– 8
6
Q = 111, R = 6

d. $4 \overline{)652}$ = 163
– 4↓
25
– 24
12
– 12
0
Q = 163, R = 0

2. Divide :

Ans.

a. $3 \overline{)58}$ = 19
– 3↓
28
–27
1
Q = 19
R = 1

b. $7 \overline{)72}$ = 10
– 7↓
02
– 0
2
Q = 10
R = 2

c. $8 \overline{)99}$ = 12
– 8↓
19
–16
3
Q = 12
R = 3

d. $6 \overline{)69}$ = 11
– 6↓
09
– 6
3
Q = 11
R = 3

e. $4 \overline{)61}$ = 15
– 4↓
21
–20
1
Q = 15
R = 1

f. $5 \overline{)31}$ = 6
– 30
1
Q = 6
R = 1

g. $9 \overline{)52}$ = 5
– 45
7
Q = 5
R = 7

h. $2 \overline{)44}$ = 22
– 4↓
04
– 4
0
Q = 22
R = 0

i. $6 \overline{)73}$ = 12
– 6↓
13
–12
1
Q = 12
R = 1

3. Divide and find the quotient and remainder.

Ans. a.
$$\begin{array}{r} 120 \\ 3\overline{)362} \\ -3\downarrow \\ \hline 06 \\ -6\downarrow \\ \hline 02 \\ -0 \\ \hline 2 \end{array}$$
Q = 120, R = 2

b.
$$\begin{array}{r} 111 \\ 4\overline{)445} \\ -4\downarrow \\ \hline 04 \\ -4\downarrow \\ \hline 05 \\ -4 \\ \hline 1 \end{array}$$
Q = 111, R = 1

c.
$$\begin{array}{r} 173 \\ 2\overline{)347} \\ -2\downarrow \\ \hline 14 \\ -14\downarrow \\ \hline 07 \\ -6 \\ \hline 1 \end{array}$$
Q = 173, R = 1

d.
$$\begin{array}{r} 18 \\ 6\overline{)108} \\ -6\downarrow \\ \hline 48 \\ -48 \\ \hline 0 \end{array}$$
Q = 18, R = 0

e.
$$\begin{array}{r} 141 \\ 4\overline{)564} \\ -4\downarrow \\ \hline 16 \\ -16\downarrow \\ \hline 4 \\ -4 \\ \hline 0 \end{array}$$
Q = 141, R = 0

f.
$$\begin{array}{r} 179 \\ 2\overline{)358} \\ -2\downarrow \\ \hline 15 \\ -14\downarrow \\ \hline 18 \\ -18 \\ \hline 0 \end{array}$$
Q = 179, R = 0

g.
$$\begin{array}{r} 128 \\ 5\overline{)640} \\ -5\downarrow \\ \hline 14 \\ -10\downarrow \\ \hline 40 \\ -40 \\ \hline 0 \end{array}$$
Q = 128, R = 0

h.
$$\begin{array}{r} 148 \\ 3\overline{)445} \\ -3\downarrow \\ \hline 14 \\ -12\downarrow \\ \hline 25 \\ -24 \\ \hline 1 \end{array}$$
Q = 148, R = 1

i.
$$\begin{array}{r} 134 \\ 4\overline{)536} \\ -4\downarrow \\ \hline 13 \\ -12\downarrow \\ \hline 16 \\ -16 \\ \hline 0 \end{array}$$
Q = 134, R = 0

Think And Do

Ans. 19 balloons.

Exercise 6.9

1. Find the quotient and remainder :

Ans. a. Q = 61, R = 0 b. Q = 7, R = 5 c. Q = 6, R = 8
d. Q = 10, R = 0 e. Q = 54, R = 0 f. Q = 95, R = 0
g. Q = 61, R = 5 h. Q = 20, R = 5

Exercise 6.10

1. 10 buses carry = 950 people
1 bus carrys = 950 ÷ 10
= 95 people
\ 95 people can travel by each bus.

$$\begin{array}{r} 95 \\ 10\overline{)950} \\ -90 \\ \hline 50 \\ -50 \\ \hline 0 \end{array}$$

2. 9 necklaces have = 270 beads
1 necklace has = 270 ÷ 9
= 30 beads.
\ There are 30 beads in each necklace.

$$\begin{array}{r} 30 \\ 9\overline{)270} \\ -27 \\ \hline 00 \\ -0 \\ \hline 0 \end{array}$$

3. 8 friends will get stickers = 96
1 friend will get stickers = 96 ÷ 8
= 12
\ 12 stickers will get each one.

$$\begin{array}{r} 12 \\ 8\overline{)96} \\ -8\downarrow \\ \hline 16 \\ -16 \\ \hline 0 \end{array}$$

4. 2 baskets have = 242 apples
1 basket has = 242 ÷ 2
= 121 apples
\ 121 apples should be packed in each basket.

$$\begin{array}{r} 121 \\ 2\overline{)242} \\ -2 \\ \hline 04 \\ -4 \\ \hline 02 \\ -2 \\ \hline 0 \end{array}$$

5. Tanvi has a 180 cm long rope.
She wants to divide it to 9 parts.
Length of 1 part = 180 ÷ 9 = 20 cm

\ 20 cm will be the length of each rope.

$$\begin{array}{r} 20 \\ 9\overline{)180} \\ -18 \\ \hline 00 \\ -0 \\ \hline 0 \end{array}$$

6. Total days = 847 day
Days in a week = 7 days
\ Number of weeks = 847 ÷ 7
= 121 weeks.

$$\begin{array}{r} 121 \\ 7\overline{)847} \\ -7 \\ \hline 14 \\ -14 \\ \hline 07 \\ -7 \\ \hline 0 \end{array}$$

MULTIPLE CHOICE QUESTIONS

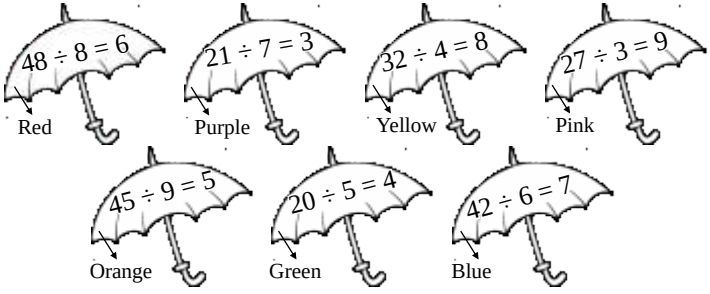
Tick (3) the correct choice :

Ans. 1. a. 2. c. 3. b. 4. b.

PLAY TIME

Colour the question umbrella to match the colours of the answer rectangle.

Ans.



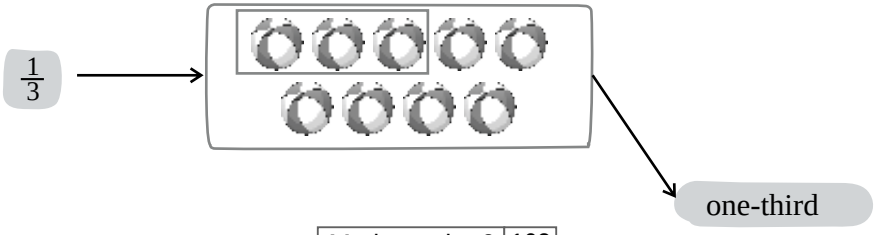
Fractions

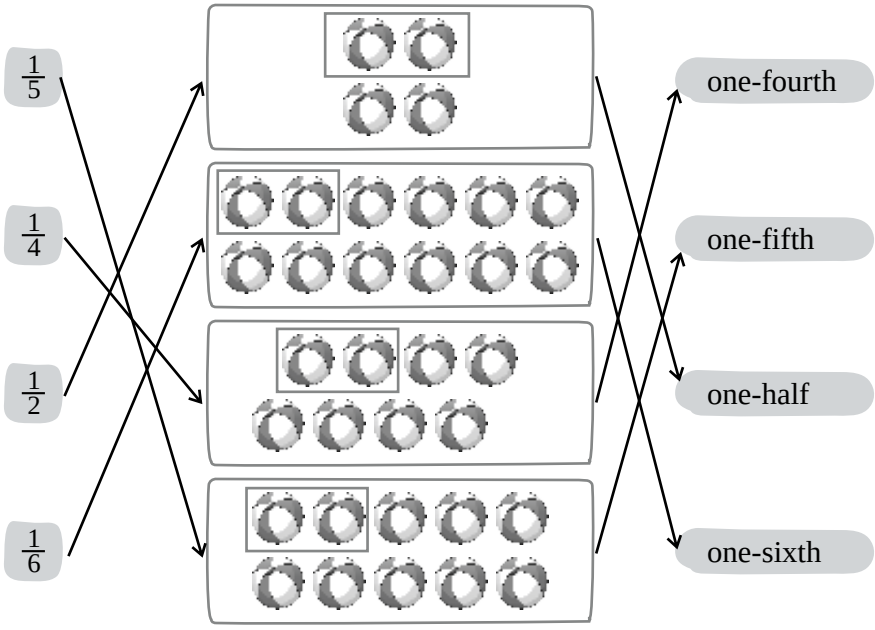
7

Let's Review

Match the following. One has been done for you :

Ans.

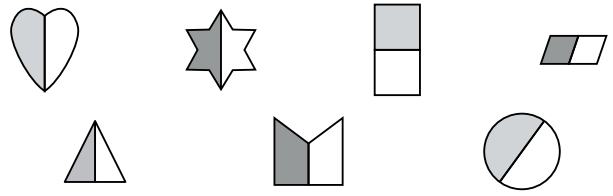




Exercise 7.1

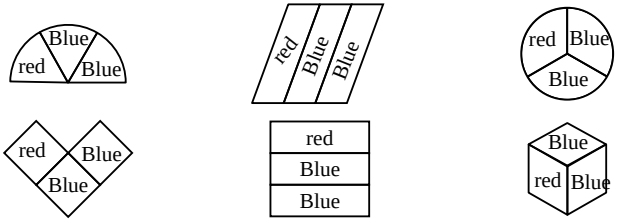
1. Shade or colour one-half.

Ans.



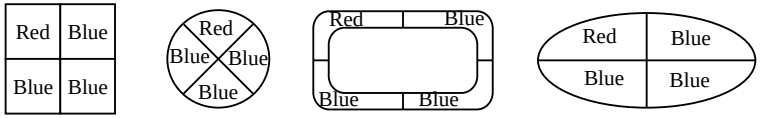
2. Colour to show one-third in red and two-thirds in blue.

Ans.



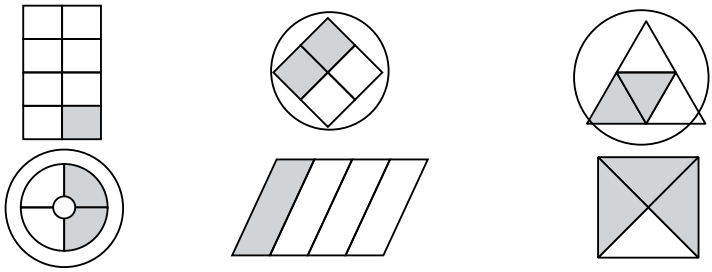
3. Colour to show one-foruth in red and three-fourths in blue.

Ans.



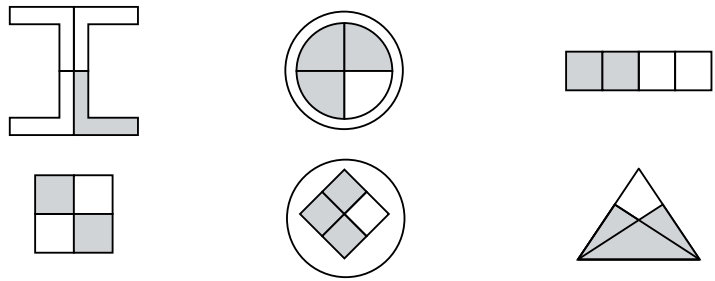
4. Ring the shapes where is $\frac{2}{4}$ green.

Ans.



5. Ring the shapes where $\frac{3}{4}$ is orange.

Ans.



Think And Do

1. Choose a fraction to show the amount of liquid in each container.

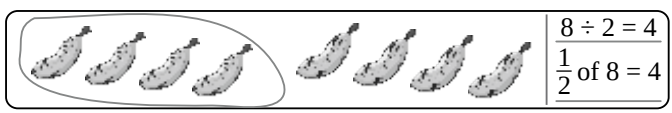
Ans.

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

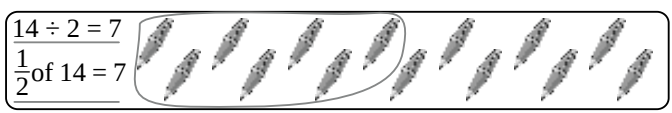
Exercise 7.2

1. Circle one-half.

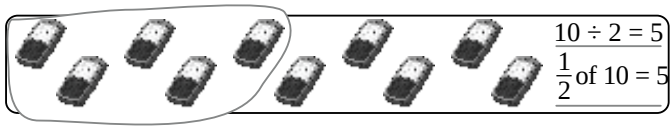
Ans. a.



b.

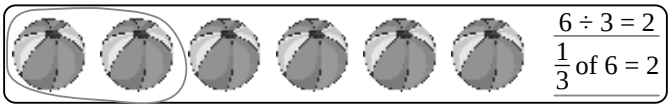


c.

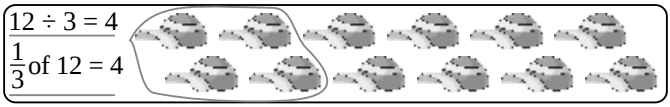


2. Circle one-third.

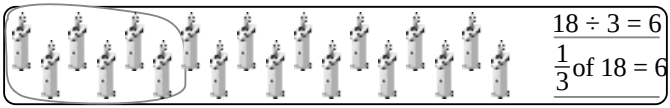
Ans. a.



b.

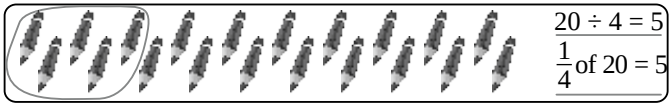


c.

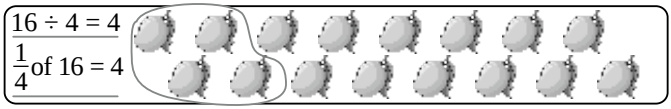


3. Circle one-fourth.

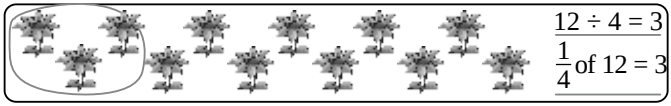
Ans. a.



b.



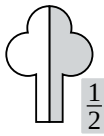
c.



Exercise 7.3

1. First write the fraction for shaded part then find the numerator and denominator.

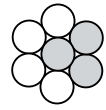
Ans. a.



Numerator = 1
Denominator = 2

$\frac{1}{2}$

b.



Numerator = 3
Denominator = 7

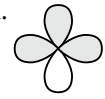
$\frac{3}{7}$

c.

Numerator = 5
Denominator = 8

$\frac{5}{8}$

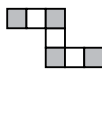
d.



Numerator = 3
Denominator = 4

$\frac{3}{4}$

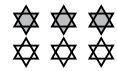
e.



Numerator = 6
Denominator = 10

$\frac{6}{10}$

f.



Numerator = 3
Denominator = 6

$\frac{3}{6}$

g.

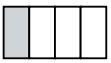
Numerator = 7
Denominator = 8

$\frac{7}{8}$

h.

Numerator = 3
Denominator = 8

$\frac{3}{8}$

i.  Numerator = 1
Denominator = 4

$\frac{1}{4}$

j.  Numerator = 3
Denominator = 8

$\frac{3}{8}$

2. Write the fraction with.

Ans. a. Numerator 2, Denominator 5 $\frac{2}{5}$

b. Numerator 4, Denominator 10 $\frac{4}{10}$

c. Numerator 3, Denominator 7 $\frac{3}{7}$

d. Numerator 1, Denominator 6 $\frac{1}{6}$

e. Numerator 4, Denominator 8 $\frac{4}{8}$

3. Write the fraction for the following word problems.

a. $\frac{11}{15}$ b. $\frac{15}{24}$ c. $\frac{3}{5}$ d. $\frac{4}{12}$ e. $\frac{5}{11}$

f. $\frac{1}{5}$ g. 3 h. $\frac{5}{8}$

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. c.

Geometrical shapes

8

Let's Review

Look at the picture given above. Tick (3) the correct box according to the shape of the objects :

Ans.

Object	Sphere	Cuboid	Cube
			3
		3	
	3		

Object	Cylinder	Cone	Rectangle
	3		
		3	
			3

Exercise 8.1

1. Name the line segments in each of these figures.

Ans. a. Line segment = PQ, QR, RS, SP

b. Line segment = AB, BC, CD, DE, EA

2. Only one line segment can draw passing though these points.

A ——————— B

3. Fill in the blanks :

Ans. a. one b. two c. definite d. position e. $\overleftrightarrow{MN}$

Exercise 8.2

1. Measure each of the following line-segments.

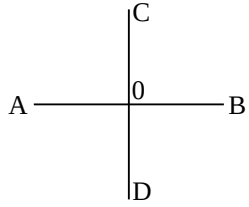
Ans. a. do it yourself.

2. Do the following :

Ans. a. do these yourself.

b. do these yourself.

c. Horizontal lines segment is AB
Vertical line segment is CD
Point of intersection is 0



Exercise 8.3

1. Fill in the blanks :

Ans. a. 4, 4 b. equal c. 3, 3 d. no e. equal

2. Name the shape that you will get if you trace the outline of :

Ans. a. Rectangle b. Circle c. Rectangle d. Square

3. Yes **4.** Yes **5.** Yes **6.** 4 **7.** 3

Think And Do

Cont the number of rectangles in each case.

Ans. a. 3 b. 16 c. 12

Exercise 8.4

1. Tick (3) the correct word in each sentence.

Ans. a. The watermelon has a (plane/curved) surface. 3

b. The football has a (plane/curved) surface. 3

c. The top of your teacher's table has a (plane/curved) surface. 3

d. The ball of wool has a (plane/curved) surface. 3

2. Say whether 'Yes' or 'No' :

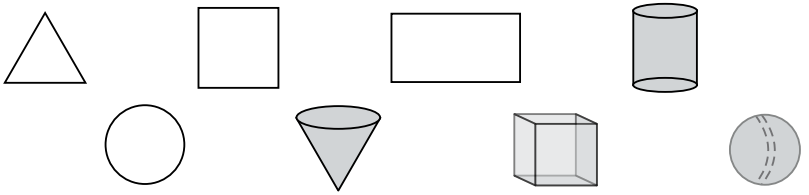
Ans. a. No b. Yes c. Yes d. No
e. No f. Yes

3. Answer True or False :

Ans. a. True b. False c. True d. True
e. False f. True g. True

4. Look at the plane and solid shapes. Colour only the solid shapes in green.

Ans.



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. b. 4. a.

Higher Order Thinking skills

Ans. Do Yourself.

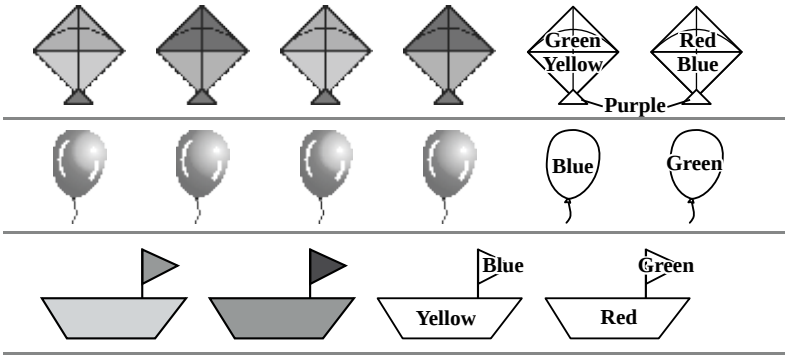
Patterns and Symmetry

9

Let's Review

1. Observe the pattern and colour the objects.

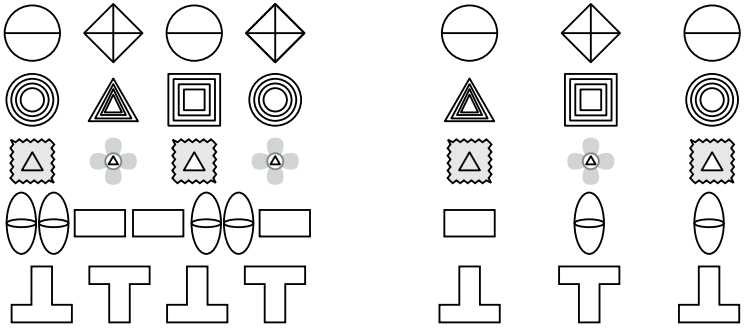
Ans.



Exercise 9.1

1. Look for the pattern and complete the series for each of the following :

Ans.



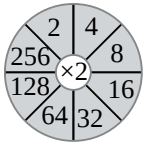
2. Look for the pattern and write next 3 terms.

Ans. a. 45, 55, 65 b. 110, 160, 220

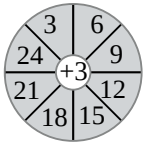
c. 16, 19, 22 d. 80, 110, 145

3. Look for the pattern and write next 3 terms.

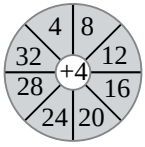
Ans. a.



b.



c.



Exercise 9.2

1. Complete the tiling patterns and colour them accordingly.

Ans. Do it yourself.

2. Colour the tiles to make patterns.

Ans. Do it yourself.

3. Create your own patterns and colour them.

Ans. Do it yourself.

Exercise 9.3

Try to make these shapes by joining pieces of the tangram. Practice more using your tangram puzzles.

Ans. Do it yourself.

Exercise 9.4

1. Tick (3) the images which are symmetrical.

Ans. a.  3

b.  3

d.  3

2. Title the house shown below using tiles of different colours and shapes. Also circle the given shape that can be used to tile the house.

Ans. b.

Measurement

10

Let's Review

Would you use cm, m, mL, L, g or kg to measure these?
First decide whether you need to measure length, mass, or capacity and then write the unit accordingly.

Ans. a. 
Quantity of tea in a cup [mL]

b. 
Weight of a television set [kg]

c. 
Length of the painting [cm]

d. 
Weight of newspaper [g]

e. 
Length of pencil [cm]

f. 
Quantity of water in the jug [L]

Exercise 10.1

1. Change into cm :

Ans. a. 12 m = **1200** cm
b. 7 m = **700 cm**
c. 6 m 18 cm = **618** cm
d. 25 m = **2500** cm
e. 17 m 28 cm = **1728** cm
f. 42 m = **4200** cm

2. Change into m :

Ans. a. 7 km = **7000** m
b. 5 km = **5000** m
c. 3 km = **3000** m
d. 4 km 15 m = **4015** m
e. 6 km 218 m = **6218** m
f. 9 km = **9000** m

3. Change into m and cm :

Ans. a. 893 cm = **8** m **93** cm
b. 736 cm = **7** m **36** cm
c. 438 cm = **4** m **38** cm
d. 1829 cm = **18** m **29** cm
e. 6128 cm = **61** m **28** cm
f. 3856 cm = **38** m **56** cm

4. Change into km and m :

Ans. a. 2815 m = **2** km **815** m
b. 8345 m = **8** km **345** m
c. 7603 m = **7** km **603** m
d. 1230 m = **1** km **230** m
e. 9987 m = **9** km **987** m
f. 6300 m = **6** km **300** m

Exercise 10.2

1. Add :

Ans. a.

m	cm
47	52
+22	17
69	69

b.

m	cm
①	
68	60
+ 55	32
123	92

c.

m	cm
①	①
23	48
+54	73
78	21

d.

m	cm
①①	①
33	93
+26	39
60	32

2. Add :

Ans. a. 203 m 56 cm + 16 m 12 cm
= 219 m 68 cm

m	cm
203	56
+16	12
211	68

b. 140 m 23 cm + 79 m 56 cm
= 219 m 79 cm

m	cm
140	23
+ 79	56
219	79

c. 320 m 30 cm + 140 m 4 cm + 160 m 8 cm
= 620 m 42 cm

m	cm
①	①
320	30
140	04
+160	08
620	42

d. 45 km 709 m + 78 km 125 m + 142 km 42 m
= 265 km 876 m.

km	m
①①	①
45	709
78	125
+142	042
265	876

e. 38 m 656 m + 79k m 484 m = 118 m 140 cm

km	m
①①①①	
38	656
+ 79	484
118	140

f. 34 km 684 m + 189 km 590 m = 224 km 274 m

km	m
①①①①	
34	684
+ 189	590
224	274

3. Subtract :

Ans. a.

m	cm
3 8	3 8
– 1 6	2 0
2 2	1 8

b.

m	cm
8 4	7 2
– 5 2	5 1
3 2	2 1

c.

m	cm
④⑮	⑬⑱
~~5~~ ~~6~~	~~4~~ ~~8~~
– 2 7	6 9
2 8	7 9

d.

m	cm
①⑬	⑨⑫
~~2~~ ~~4~~	~~0~~ ~~2~~
– 1 5	6 8
0 8	3 4

4. Subtract :

Ans. a. 33 m 50 cm – 17 m 69 cm
= 15 m 81c m

km	m
②⑫	⑭⑩
~~3~~ ~~3~~	~~5~~ ~~0~~
– 1 7	6 9
1 5	8 1

b. 45 m 79 cm – 28 m 98 cm
= 16 m 81 cm

km	m
③⑭	⑰
~~4~~ ~~5~~	~~7~~ 9
– 2 8	9 8
1 6	8 1

c. 352 m 61 cm – 27 km
73 cm = 324 m 88 cm

m	cm
④⑪	⑮⑪
3 5 2	6 1
– 2 7	7 3
3 2 4	8 8

d. 262 m 28 cm – 217 m 67 cm
= 44 m 61 cm

m	cm
⑤⑪	⑫
2 6 2	2 8
– 2 1 7	6 7
4 4	6 1

e. 175 m 100 cm – 27 km
135 m = 147 km 965 m

km	m
⑥⑭	⑩⑨⑩
1 ~~7~~ ~~5~~	~~1~~ ~~0~~ 0
– 2 7	1 3 5
1 4 7	9 6 5

f. 80 m 532 cm – 17 km 636 m
= 62 km 896 m

km	m
⑦⑨	⑭⑫⑫
~~8~~ ~~0~~	~~5~~ ~~3~~ ~~2~~
– 1 7	6 3 6
6 2	8 9 6

g. 350 km 105 m – 27 km
66 m = 323 km 39 m

km	m
④⑩	⓪⑨⑮
3 ~~5~~ ~~0~~	~~1~~ ~~0~~ ~~5~~
– 2 7	6 6
3 2 3	3 9

h. 600 km 395 m – 59 km 478 m
= 540 km 917 m

km	m
⑤⑨⑨	⑬⑧⑮
~~6~~ ~~0~~ ~~0~~	~~3~~ ~~9~~ ~~5~~
– 5 9	4 7 8
5 4 0	9 1 7

i. 300 km 218 m – 139 km
572 m = 160 km 646 m

km	m
②⑨⑨	⑪⑪
~~3~~ ~~0~~ ~~0~~	~~2~~ ~~1~~ 8
– 1 3 9	5 7 2
1 6 0	6 4 6

j. 50 km 404 m – 20 km 460 m
= 29 km 944 m

km	m
④⑨	⑬⑩
~~5~~ ~~0~~	~~4~~ ~~0~~ 4
– 2 0	4 6 0
2 9	9 4 4

Exercise 10.3

1. Change into grams.

Ans. a. 6 kg = **6000** g
b. 18 kg = **18000** g
c. 8 kg 295 g = **8295** g
d. 3 kg 25 g = **3025** g

2. Change into kilograms and grams :

Ans. a. 1006 g = **1** kg **6** g
b. 4030 g = **4** kg **30** g
c. 2546 g = **2** kg **546** g
d. 8490 g = **8** kg **490** g
e. 5042 g = **5** kg **42** g
f. 7676 g = **7** kg **676** g

Exercise 10.4

1. Add :

Ans. a.

kg	g
(1)	(1)(1)
30	345
+42	98
72	443

b.

kg	g
(1)	(1)
42	760
+26	396
69	156

c.

kg	g
(1)(1)	(1)(1)
34	946
+26	758
61	704

d.

kg	g
(1)	(1)
58	309
+34	76
92	385

2. Add :

Ans. a. 84 kg 585 g + 26 kg 365 g
= 110 kg 950 g

kg	g
(1)	(1)(1)
84	585
+26	365
110	950

b. 34 kg 994 g + 94 kg 66 g
= 25 kg = 238 g

kg	g
(1)	(1)(1)
34	994
+94	066
129	060

c. 41 kg 689 g + 275 kg
588 g = 317 kg 277 g

kg	g
(1) (1)	(1)(1)
41	689
+275	588
317	277

d. 69 kg 293 g + 29 kg + 368 g
+18 kg 645g = 117 kg 306 g

kg	g
(2)(1)	(2)(1)
69	293
29	368
+18	645
117	306

e. 56 kg 794 g 79 kg
187 g = 135 kg 981 g

kg	g
(1)	(1)(1)
56	794
+ 79	187
135	981

f. 59 kg 486 g + 224 kg 257 g
+ 330 kg 330 g = 614 kg 73 g

kg	g
(1)(1)(1)	(1)(1)
59	486
224	257
+330	330
614	073

g. 5 kg 263 g + 75 kg 7 g + 39 kg 730 g = 120 kg

	kg	g
	(2)(1)	(1)(1)
	5	263
	75	007
+	39	730
	120	000

h. 43 kg 167 g + 27 kg 459 g + 10 kg 505 g = 81 kg 131 g

	kg	g
	(1)(1)	(1)(2)
	43	167
	27	459
+	10	505
	81	131

3. Subtract :

Ans. a.

	kg	g
	(6)(11)	(10)(10)
	~~72~~	~~10~~8
−	47	798
	24	310

b.

	kg	g
	(4)(12)	(11)(10)(14)
	~~53~~	~~214~~
−	17	895
	35	319

c.

	kg	g
	(6)(9)	(11)(13)(11)
	~~70~~	~~241~~
−	59	779
	10	462

d.

	kg	g
	(6)(15)	(12)(13)(11)
	~~76~~	~~341~~
−	28	768
	47	573

4. Subtract :

Ans. a. 243 kg 108 g – 18 kg 799g = 224 kg 309 g

	kg	g
	(3)(12)	(10)(9)(18)
	2~~43~~	~~108~~
−	18	799
	224	309

b. 71 kg 223 g – 49 kg 985 g = 21 kg 238 g

	kg	g
	(6)(10)	(11)(11)(13)
	~~71~~	~~223~~
−	49	985
	21	238

c. 46 kg 74 g – 27 kg 396g = 18 kg 678 g

	kg	g
	(3)(15)	(9)(16)(14)
	~~46~~	~~074~~
−	27	396
	18	678

d. 94 kg 500 g – 76 kg 729 g = 17 kg 771 g

	kg	g
	(8)(13)	(14)(9)(10)
	~~94~~	~~500~~
−	76	729
	17	771

e. 260 kg 7 g – 142 kg 128 g = 117 kg 879 g

	kg	g
	(5)(9)	(9)(9)(17)
	2~~60~~	~~007~~
−	142	128
	117	879

f. 464 kg 362 g – 427 kg 498 g = 36 kg 864 g

	kg	g
	(5)(13)	(12)(15)(12)
	4~~64~~	~~362~~
−	427	498
	36	864

g. 362 kg 146 g – 149 kg 779 g = 212 kg 367 g

	kg	g
	(5)(11)	(10)(13)(16)
	3~~62~~	~~146~~
−	149	779
	212	367

h. 756 kg 214 g – 327 kg 986 g = 428 kg 228 g

	kg	g
	(4)(15)	(11)(10)(14)
	7~~56~~	~~214~~
−	327	986
	428	228

Exercise 10.5

1. Change into ml :

Ans. a. 9 *l* = **9000** m*l*
b. 7 *l* = **7000** m*l*
c. 8 *l* 750 m*l* = **8750** m*l*
d. 6 *l* 265 m*l* = **6265** m*l*
e. 4 *l* 404 m*l* = **4404** m*l*
f. 5 *l* 175m*l* = **5175** m*l*
g. 4 *l* 750 m*l* = **4750** m*l*
h. 3 *l* 330m*l* = **3330** m*l*

2. Change into l and ml :

Ans. a. 1005 ml = **1** *l* **5** m*l*
b. 7878 ml = **7** *l* **878** m*l*
c. 4338 ml = **4** *l* **338** m*l*
d. 3477 ml = **3** *l* **477** m*l*
e. 9356 ml = **9** *l* **356** m*l*
f. 2222 ml = **2** *l* **222** m*l*
g. 6556 ml = **6** *l* **556** m*l*
h. 3540 ml = **3** *l* **540** m*l*

Exercise 10.6

1. Add :

Ans. a.

l	m*l*
49	497
+78	743
128	240

b.

l	m*l*
62	043
+49	969
112	012

c.

l	m*l*
65	650
+58	193
123	843

d.

l	m*l*
78	070
+23	288
101	358

2. Add :

Ans. a. 37 *l* 348 m*l* + 28*l* 290 m*l*
= 65 *l* 638 m*l*

l	m*l*
37	348
+28	290
65	638

b. 253 *l* 597 ml + 357 *l* 684 ml
= 611 *l* 281 m*l*

l	m*l*
253	597
+357	684
611	281

c. 729 *l* 678 m*l* + 137*l*
298 m*l* = 866 *l* 976 m*l*

l	m*l*
729	678
+137	298
866	976

d. 50 *l* 594 m*l* + 246 *l* 47 m*l*
= 296 *l* 641 m*l*

l	m*l*
50	594
+246	047
296	641

e. 65 *l* 465 m*l* + 59*l* 278 m*l*
= 124 *l* 743 m*l*

l	m*l*
65	465
+59	278
124	743

f. 117 *l* 998 m*l* + 66 *l* 47 m*l* +
6*l* 5 m*l* = 190*l* 50 m*l*

l	m*l*
117	998
66	047
+6	005
190	050

g. 413 *l* 866 m*l* + 438*l* 176 m*l* + 235 m*l* = 852 *l* 277 m*l*

	kg	g
	(1)(1)	(1)(1)
	413	866
	438	176
+	0	235
	852	277

h. 172 *l* 949 m*l* + 248 *l* 90 m*l* = 421 *l* 039 m*l*

	l	m*l*
	(1)(1)(1)	(1)
	172	949
+	248	090
	421	039

3. Subtract :

Ans. a.

	l	m*l*
	(6)(11)	(12)(7)(10)
	~~72~~	~~280~~
–	18	756
	53	524

b.

	l	m*l*
	(5)(18)	(2)(16)(14)
	~~68~~	~~374~~
–	29	296
	39	078

c.

	l	m*l*
	(5)(9)	(13)(12)(11)
	~~60~~	~~431~~
–	39	574
	20	857

d.

	l	m*l*
	(5)(13)	(11)(8)(13)
	~~64~~	~~193~~
–	29	785
	34	408

4. Subtract :

Ans. a. 87 *l* 106 ml – 49 *l* 937 ml = 37 *l* 169 ml

	l	m*l*
	(7)(16)	(10)(9)(16)
	8~~7~~	~~106~~
–	49	937
	37	169

b. 193 *l* 232 m*l* – 78 *l* 986 m*l* = 114 *l* 246 m*l*

	l	m*l*
	(8)(12)	(11)(12)(12)
	1~~93~~	232
–	78	986
	114	246

c. 46 *l* 34 m*l* – 28 *l* 798 ml = 17 *l* 236 ml

	l	m*l*
	(3)(15)	(9)(12)(14)
	~~46~~	~~034~~
–	28	798
	17	236

d. 34 *l* 6 m*l* – 18 *l* 757 m*l* = 15 *l* 249 m*l*

	l	m*l*
	(2)(13)	(9)(9)(16)
	3~~4~~	~~006~~
–	18	757
	15	249

e. 328 *l* 5 m*l* – 16 *l* 798 ml = 311 *l* 207 ml

	l	m*l*
	(7)	(9)(9)(15)
	328	~~005~~
–	16	798
	311	207

f. 374 *l* 220 m*l* – 138 *l* 798 m*l* = 235 *l* 422 m*l*

	l	m*l*
	(6)(13)(11)(11)(10)	
	374	~~220~~
–	138	798
	235	422

g. 456 *l* 3 m*l* – 139 *l* 198 ml = 316 *l* 805 ml

	l	m*l*
	(4)(15)	(9)(9)(13)
	456	~~003~~
–	139	198
	316	805

h. 276 *l* 341 m*l* – 58 *l* 798 m*l* = 217 *l* 543 m*l*

	l	m*l*
	(6)(15)(12)(13)(11)	
	2~~7~~6	~~341~~
–	58	798
	217	543

Exercise 10.7

1. Petrol was sold to Ist car owner = 20 *l* 540 m*l*
Petrol was sold to IInd car owner = 25*l* 330 m*l*
Petrol was sold to IIIrd car owner = + 30*l* 050 m*l*
total quantity of petrol was sold = 75*l* 920 m*l*
So, total petrol was sold = 75*l* 920 m*l*.

l	m*l*
	(1)
20	540
25	330
+30	050
75	920

2. Vishakha jogs = 5 km 650 m
Jatin jogs = 7 km 50 m
7 km 50 m > 5 km 650
\ Jatin jogs more than Vishakha.
Jatin jogs more = 7 km 50 m – 5 km 650 m
= 1 km 400 m.
Jatin jogs 1 km 400 m more than Vishakha.

km	m
(6)	(10)
7	050
– 5	650
1	400

3. Weight of potatoes = 5 kg 500 g.
Weight of tomatoes = 1 kg 225 g
Total weight = 5 kg 500 g
+ 1 kg 225 g
= 6 kg 725 g.
So, Mr Kashyap bought 6 kg 725 g vegetables.

km	m
5	500
+ 1	225
6	725

4. Loddooos were bought = 2 kg 500 g
Ladoos were distributed = 1 kg 200 g
Ladoos has felt with sagar = 2 kg 500 g
– 1 kg 200 g
= 1 kg 300 g

kg	g
2	500
– 1	200
1	300

5. Weight of Ist child = 21 kg 250 g
Weight of IInd child = 32 kg 059 g
Total weight of both children = 21 kg 250 g
+ 32 kg 0 59 g
= 53 kg 309 g
So, the total weight of both children is 53 kg 309 g

kg	g
	(1)
21	250
+32	059
53	309

6. Kavita got petrol = 24 l 500 ml
She used petrol = – 15 l 780 ml
Petrol is left = 8 l 720 ml
So, 8 l 720 ml petrol is left in Kavita's car.

kg	g
(1)(13)	(14)(10)
24	500
– 15	780
8	720

7. Lenght of Ist Ribbon = 6 m 75 cm
Lenght of IInd ribbon = + 4 m 25 cm
Total length of both ribbons = 11 m 00 cm
So, 11 m is the total length of both ribbons.

m	cm
(1)	(1)
6	75
+4	25
11	00

8. The Capacity of vessel = 15 l 200 ml
Vessel contains water = 9 l 600 ml
Water can be add to the vessel = 15l 200 m –
9l 600 ml
So, 5 l 600 ml water can be added.

l	m*l*
(0)(14)	(12)
15	200
– 9	600
5	600

9. Total length of thread = 500 m
Used thread = 242 m 5 cm
Thread is left with tailor = 500 m – 242 m 5 cm
= 257 m 95 cm
So, 257 m 95 cm thread is left with tailor.

m	cm
~~5~~ ⑨⑨	~~0~~ ⑨⑩
~~5~~ ~~0~~	~~0~~ ~~0~~
– 2 4 2	0 5
2 5 7	9 5

10. Weight of sold apples to one customer = 5 kg 625 g
Weight of sold apples to another customer = 7 kg 205 g
Total weight of sold apples = 5 kg 625 g + 7 kg 205 g
= 12 kg 830 g
The fruit seller had apples = 50 kg
So, the weight of apples are left
with fruit seller = 50 kg – 12 kg 830 g
= 37 kg 170 g

kg	g
	①
5	6 2 5
+ 7	2 0 5
1 2	8 3 0

kg	g
④⑨	⑨⑩
5 0	0 0 0
– 1 2	8 3 0
3 7	1 7 0

So, 37 kg 170 g apples are left with fruit-seller.

Think And Do

Tick (3) the correct box :

		Less than 1 km	Equal to 1 km	More than 1 km
1.	250 m + 850 m			3
2.	625 m + 275 m	3		
3.	600 m + 500 m – 250 m	3		
4.	300 m – 250 m + 450 m	3		
5.	450 m + 50 m + 500 m		3	

PLAY TIME

Tick (3) the correct unit would you use to measure the following :

To measure	Unit used
Weight of the boy 	1. gram 2. kilogram 3 3. milligram
Weight of the leaf 	1. gram 2. kilogram 3. milligram 3
Weight of the sugar bag 	1. gram 2. kilogram 3 3. milligram
Mass of book 	1. gram 3 2. kilogram 3. milligram

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. b. 3. c.

Higher Order Thinking skills

Ans. 1. Because light things are not weighted in kilograms.
2. Do yourself. 3. Do yourself. 4. Do yourself.

Money

11

Let's Review

Rohan and his friends are visiting an orphanage. They have bought some toys from a shop. Find the amount spent by each child.

Ans. a. Rohan bought a toy car and a book.
He spent **`70** in all.

` 50	
+ ` 20	
` 70	

He had	` 100
He spent	– ` 70
Money left	` 30

b. Revati bought a chocolate, a teddy bear and 1 boat.
She spent **`105** in all.

` 30	
` 50	
+ ` 25	
` 105	

She had	` 110
She spent	– ` 105
Money left	` 005

c. Ranjan bought a helicopter and a boat.
He spent **`200** in all.

` 175	
+ ` 25	
` 200	

He had	` 500
He spent	– ` 200
Money left	` 300

Exercise 11.1

1. Write the given amount in short form.

Ans. a. ` 39.30 b. ` 45.65 c. `182.10
d. `535 e. `0.97 f. `3.05

2. Write the given amount in long from (in words).

Ans. a. Forty-five rupees and five paise
b. Eighteen rupees and thirty paise
c. Fifty-three rupees and seventy eight paise
d. Ninety three rupees and eighty five paise
e. One hundred forty nine rupees and eight paise
f. Six hundred seventy five rupees and twelve paise

Life Skills

Ans. Do it yourself.

Exercise 11.2

1. Change paise to rupees.

Ans. a. `4.28 b. `1.20 c. `3.20 d. `2.75
e. `4.50 f. `3.10

2. Change rupees and paise to paise.

Ans. a. 875 paise b. 450 paise c. 575 paise d. 825 paise
e. 750 paise f. 650 paise

3. Put >, < or = sign in the box.

Ans. a. = b. > c. > d. =

4. Tick (3) the correct statements. Correct the incorrect statements.

Ans. c. 3 b. `23 d. `20

Project

Ans. Do it yourself.

Exercise 11.3

1. Add the following :

Ans. a.

	`	p
	11	.43
+	20	.32
	31	.75

Ans : `31.75

b.

		`	p
	①		
	47	.75	
+	34	.00	
	81	.75	

Ans : `81.75

c.

	`	p
	65	.20
+	11	.50
	76	.70

Ans : `76.70

d.

	`	p
	25	.00
+	43	.50
	68	.50

Ans : `68.50

e.

	`	p
	①	
	12	.25
+	20	.25
	32	.50

Ans : `32.50

f.

	`	p
	①	
	27	.25
+	14	.10
	41	.35

Ans : `41.35

g.

	`	p
	①	
	15	.25
+	13	.25
	28	.50

Ans : `28.90

h.

	`	p
	23	.75
+	43	.00
	66	.75

Ans : `66.75

2. Add in the second way :

Ans. a. `26.45, + `110.75 = `137.20

	`	p
	①	
	26	.45
+	110	.75
	137	.20

Ans : `137.20

b. `36.45, + `428.75 = `465.20

	`	p
	① ①	①
	36	.45
+	428	.75
	465	.20

Ans : `465.20

c. `117.50, + `205.10, + `175.70 = `498.30

	`	p
	① ①	
	117	.50
	205	.10
+	175	.70
	498	.30

Ans : `498.30

d. `85.50, + `95.75, + `175.85 = `357.10

	`	p
	② ① ②	①
	85	.50
	95	.75
+	175	.85
	357	.10

Ans : `357.10

3. Subtract the following :

Ans. a.

	`	p
	22	.50
−	10	.00
	12	.50

b.

		`	p
	⑧	⑫	
	8 ~~9~~	. ~~2~~	5
−	45	.50	
	43	.75	

c.

		`	p
	④	⑮	⑩
	~~5~~	~~6~~	. ~~0~~ 0
−	46	.50	
	9	.50	

d.

		`	p
		④	⑩
	3	~~5~~	.00
−	12	.50	
	22	.50	

e.
	`	p
	6 2 .	5 0
−	1 0 .	0 0
	5 2 .	5 0

f.
	`	p
	1 2 3 .	2 5
−	7 2 .	0 0
	5 1 .	2 5

g.
	`	p
	⑤	⑩
	5 ~~6~~ .	~~0~~ 0
−	4 5 .	5 0
	1 0 .	5 0

h.
	`	p
	⑦	⑩
	7 ~~8~~ .	~~0~~ 0
−	4 5 .	5 0
	3 2 .	5 0

4. Subtract in second way :

Ans. a. Subtract ` 46.65 from ` 120.00

	`	p
	⓪⑪ ⑨	⑨⑩
	~~1~~ ~~2~~ ~~0~~ .	~~0~~ ~~0~~
−	4 6 .	6 5
	7 3 .	3 5

Ans : `73.35

b. Subtract ` 374.20 from ` 500.05

	`	p
	④ ⑨ ⑨	⑩
	~~5~~ ~~0~~ ~~0~~ .	0 5
−	3 7 4 .	2 0
	1 2 5 .	8 5

Ans : `125.85

c. Subtract ` 52.83 from ` 100.00

	`	p
	⓪ ⑨ ⑨	⑨⑩
	~~1~~ 0 0 .	0 0
−	5 2 .	8 3
	4 7 .	1 7

Ans : `47.17

d. Subtract ` 183.75 from ` 220.65

	`	p
	① ⑪ ⑨	⑯
	~~2~~ ~~2~~ ~~0~~ .	~~6~~ 5
−	1 8 3 .	7 5
	0 3 6 .	9 0

Ans : `36.90

Exercise 11.4

1. Multiply the following :

Ans. a.
	`	p
	2 3 .	8 0
	×	9
`	2 1 4 .	2 0

b.
	`	p
	2 4 .	1 8
	×	9
`	2 1 7 .	6 2

c.
	`	p
	4 9 .	1 2
	×	5
`	2 4 5 .	6 0

d.
	`	p
	1 7 .	3 8
	×	8
`	1 3 9 .	0 4

e.
	`	p
	3 5 .	2 3
	×	6
`	2 1 1 .	3 8

f.
	`	p
	1 9 .	1 5
	×	4
`	7 6 .	6 0

g.
	`	p
	4 5 .	3 2
	×	5
`	2 2 6 .	6 0

h.
	`	p
	1 2 .	2 5
	×	5
`	6 1 .	2 5

2. Divide the following :

Ans. a. ` 95 ÷ 5 = `19.00

```
    `19.00
  5)`95.00
   – 5
    45
   – 45
     00
    – 0
     00
    – 0
     0
```

b. `320 ÷ 4 = `80.00

```
    `80.00
  4)`320.00
   – 32
     00
    – 0
     00
    – 0
     00
    – 0
     0
```

c. ` 102 ÷ 6 = `17.00

```
    `17.00
  6)`102.00
   – 6
     42
   – 42
     00
    – 0
     00
    – 0
     0
```

d. `65 ÷ 5 = `13.00

```
    `13.00
  5)`65.00
   – 5
     15
   – 15
     00
    – 0
     00
    – 0
     0
```

e. ` 45 ÷ 3 = `15.00

```
    `15.00
  3)`45.00
   – 3
     15
   – 15
     00
    – 0
     00
    – 0
     0
```

f. `120 ÷ 3 = `40.00

```
    `40.00
  3)`120.00
   – 12
     00
    – 0
     00
    – 0
     00
    – 0
     0
```

Exercise 11.5

1. The cost of 1 chocolate = `14.50
The cost of 2 chocolate = ` 14.50 × 2
= `29.00
\ Rajni will pay `29.00 for them.

2. The cost of a glue stick = `6.00
The cost of picture books = + `16.90
Total amount that Manjeet spent = `22.90
So, Manjeet spent ` 22.90 in all.

3. The cost of Hindi story book = `43.50
The cost of English story book = + `36.50
Total amount that Gautami spent = `80.00
So, Gautami spent `80.00 in all.

4. The cost of 1 toy = `112.50
\ The cost of 4 such toys = `112.50 × 4
= `450.00
\ Sunanda will pay `450 for them.

5. The cost of 1 biscuit packet = `16.70
\ The cost of 8 biscuit packets = `16.70 × 8
= `133.60
So, the cost of 8 biscuit packets `133.60.

$$\begin{array}{r} 10.65 \\ 8\overline{)\,85.20} \\ -\,8 \\ \hline 05 \\ -\,0 \\ \hline 52 \\ -\,48 \\ \hline 40 \\ -\,40 \\ \hline 0 \end{array}$$

6. The cost of 8 kg guavas = `85.20
The cost of 1 kg guavas = `85.20 ÷ 8
= `10.65
So, the cost of 1 kg guavas is `10.65.

Exercise 11.6

1. Guddy went to a toy shop. She bought 2 cars for `15.00 each, 3 notebooks for `10.50 each, 1 doll for `55.00, 5balls for `30.00 each. Prepare a bill for Guddy's items.

Ans. Guddy's Bill

S.No.	Item	Quantity	Rate per item	`	P
1.	Car	2	`15.00	30	00
2.	Note book	3	`10.50	31	50
3.	Doll	1	`55.00	55	00
4.	Balls	5	`30.00	150	00
			Total =	266	50

2. Seema's Bill

	Coffee Shop			Bill No. 214 Date :
S. No.	Items	Quan-tity	Price (in `)	Amount ` p
1.	Hot coffee	1	12.50	12.50
2.	Club sandwich	2	30.25	60.50
3.	French fries	1	25.00	25.00
4.	Cold coffee	1	18.50	18.50
5.	Coleslaw sandwich	3	32.25	96.75
			Total	213.25

3. a. Sanya's Bill

S.No.	Item	Quantity	Rate per item	`	P
1.	Note book	3	` 18.65	55	95
2.	Pencil box	2	` 35.50	71	00
3.	Colour box	1	` 52.25	52	25
			Total =	179	20

b. Shivam's Bill

S.No.	Item	Quantity	Rate per item	`	P
1.	Pencil	6	` 5.00	30	00
2.	Eraser	4	` 3.00	12	00
3.	Sharp ener	4	` 8.00	32	00
4.	Fevicol Stick	1	` 12.50	12	50
			Total =	86	50

He will get back = `(100.00 – 86.50) = `13.50

Higher Order Thinking skills

Ans. The shopkeeper should return to Deepak `33.60

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. b. 4. a. 5. c. 6. b. 7. c. 8. a.

Time and Calendar

12

Let's Review

Look at the daily routine of Rishabh and then draw the hands in the clock.

Ans.

I get up at 6 o' clock.

I take my breakfast at half past 7.

I come back home at 2 o' clock.

I go to bed at 9:30.

Exercise 12.1

1. Draw hands on the clocks to show the time written below.

Ans. a.  1 o'clock

b.  quarter past 6.

c.  quarter to 4

d.  9:30

2. Look at the following table. All the four boxes in a row convey the same meaning. Now, complete the following table buy filling in the blank boxes.

Ans. b. 	10:45	Quarter to 11	15 minutes to 11
c. 	3:45	Quarter to 4	15 minutes to 4
d. 	3:15	Quarter past 3	15 minutes past 3

Exercise 12.2

1. Look of the clocks shown here and write the time in two ways. One has been done for you.

Ans. a. 10:10, 10 minutes past 10
b. 11:30, Half past 11
c. 12:50, 10 minutes to 1
d. 2:20, 20 minutes past 2

2. Draw the hour hand and the minute hand to show the given time in the clocks.

Ans. a.  9:20

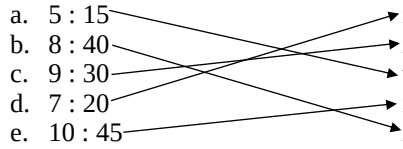
b.  10 minutes to 7

c.  25 minutes past 2

d.  11:05

3. Match the columns.

Ans.



Exercise 12.3

1. Rewrite the time using am or pm for the following :

Ans. a. 8:00 am b. 10:15 pm c. 12:40 pm d. 4:30 am

2. Write the time

Ans. a.

Time now	Time after 3 hours
1:00 pm	4:00 pm
9:30 am	12:30 pm
7:50 pm	10:50 pm
11:25 pm	2:25 am

b.

Time now	Time 2 hours before
3:30 am	1:30 am
1:25 pm	11:25 am
8:40 pm	6:40 pm
12:20 am	10:20 pm

3. Tick (3) the correct choice for the following activities :

Ans. a. I go to school at 7 am/pm 3

b. I go to play at 4 am/pm 3

c. I take dinner at 8 am/pm 3

d. I go to bed at 10 am/pm 3

Exercise 12.4

1. Convert into minutes :

Ans.

a. 1 hour = 60 minutes
\ 12 hour = 60 × 12
= 720 minutes

b. 1 hour = 60 minutes
\ 13 hours = 60 × 13
= 780 minutes

c. 1 hour = 60 minutes
\ 8 hour = 60 × 8
= 480 minutes

d. 1 hour = 60 minutes
\ 3 hours = 60 × 3
= 180 min
Þ 3 h 45 min = 180 minutes + 45 min
= 225 min

e. 1 hour = 60 minutes
\ 17 hour = 60 × 17
= 1020 minutes

f. 1 hour = 60 minutes
\ 6 hours = 60 × 6 = 360 min
Þ 6 h 50 min = 360 minutes + 50 min
= 410 min

g. $5\frac{1}{2} = \frac{11}{2}$

\ 1 hour = 60 minutes

\ $5\frac{1}{2}$ hours $= 60 \times 5\frac{1}{2} = \overset{30}{\cancel{60}} \times \frac{11}{\cancel{2}}$

= 330 minutes

h. 1 hour = 60 minutes

\ 7 hours = 60 × 7

= 420 minutes

7 hours 15 minutes

= (420 + 15) min

= 435 minutes

i. \ 1 hour = 60 minutes

\ 20 hours = 60 × 20

= 1200 minutes

\ 20 hours 25 minutes

= (1200 + 25) min

= 1225 minutes

2. Convert into hours and minutes :

Ans. a. 60 minutes = 1 hours

\ 120 minutes = (120 ÷ 60) hours = 2 hours

$$60\overline{)120}\ (2,\ -120,\ 0)$$

b. 60 minutes = 1 hour

\ 240 minutes = (240 ÷ 60) hours = 4 hours

= 4 hours

$$60\overline{)240}\ (4,\ -240,\ 0)$$

c. 60 minutes = 1 hour

\ 220 minutes = (220 ÷ 60) hours = 3 hours 40 min

$$60\overline{)220}\ (3,\ -180,\ 40)$$

d. 60 minutes = 1 hour

\ 540 minutes = (540 ÷ 60) hours = 9 hours

$$60\overline{)540}\ (9,\ -540,\ 0)$$

e. 60 minutes = 1 hour

\ 185 minutes = 185 ÷ 60

= 3 hours 5 minutes

$$60\overline{)185}\ (3,\ -180,\ 5)$$

f. 60 minutes = 1 hour

\ 315 minutes = 315 ÷ 60 hours

= 5 h 15 min

$$60\overline{)315}\ (5,\ -300,\ 15)$$

Exercise 12.5

1. Look at he calendar of present year and answer the following questions :

Ans. Do it yourself.

2. Fill in the blanks :

Ans. a. The September month has **30** days.

b. There are **12** months in a year

c. There are **52** weeks in a year.

d. The January month has **31** days.

e. There are **7** days in a week.
f. There are **365** days in a year.

Exercise 12.6

Look at the month of June in the shown calendar and answer the following questions.

Ans. a. 30 b. 5 June c. Friday d. 14 June

Think And Do

Ans. Do it yourself.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. a. 4. a.

Data Handling

Let's Review

A. This list shows the favourite fruits of students of Class III : Use the list to fill in the blanks.

Ans. (a) **Mango** is the most popular fruit.
(b) **2** more students like mango than strawberry.
(c) **Apple** and **Banana** fruits are both equally liked.
(d) In a Class III, there are total **26** students according to the list.

B. Make a list of the things given in the tray :

Ans. Do it yourself.

Exercise 13.1

1. Students of class III were asked to name their favourite games. Use the pictograph to answer the following questions.

Ans. a. Badminton
b. 2 × 6 = 12 students
c. 2 × 20 = 40 students

2. Look carefully at the pictograph given below and answer the questions.

Ans. a. Class 5
b. Class 3
c. 5 × 32 = 160 students
d. Class 1 and Class 4
e. 5 × 2 = 10 student

3. Draw a pictograph showing the different types of flowers in a garden.

Ans.

Flowers	Numbers of flowers
Rose	
marigold	
Tulip	
Sunflower	

Key : Use = 4 flowers = 2 flowers

4. Draw a pictograph showing different animals and their number.

Ans.

Flowers	Numbers of flowers
Zebra	
Tiger	
Deer	
Elephant	
Giraffe	

Key : Use = 2 animals = 1 animal

Exercise 13.2

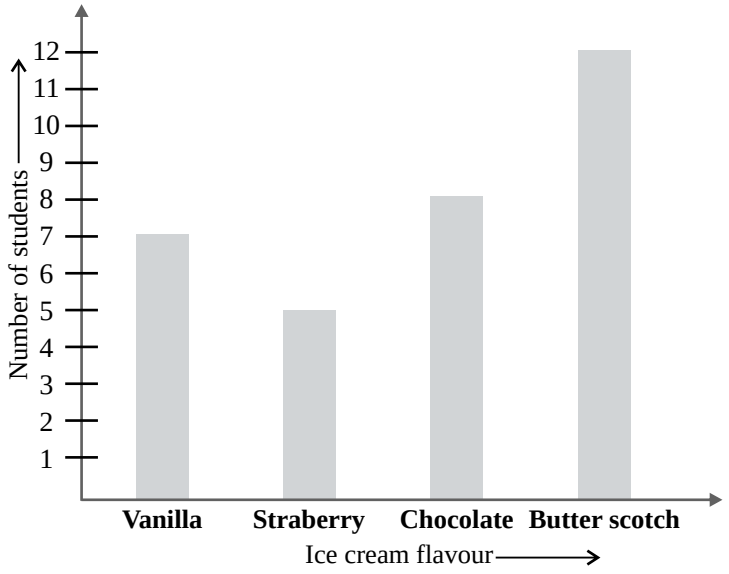
1. Study this bar graph which shows the mode of transport used by children to go to school. Answer the question that follow.

Ans. a. Bus b. 8 c. car d. 9

2. a. yellow and brown
b. Orange, yellow, Brown and Blue
c. 15 m
d. 18 m
e. Blue

3. Favourite Ice-cream flavour of 32 students is given below. Represent this information using a bar graph.

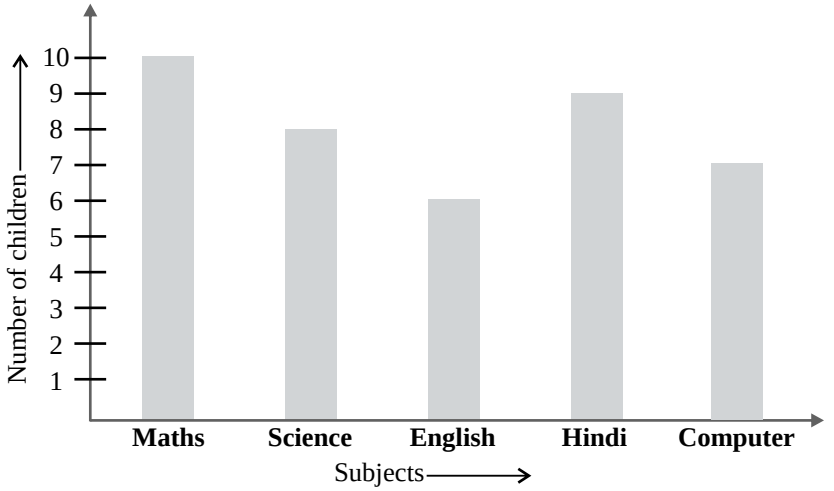
Ans. Ice-cream flavour like by the students
Scale : I unit - 1 student



4. Draw a bar graph using the information given in the table for favourite subject of children.

Ans. Subject like by the children

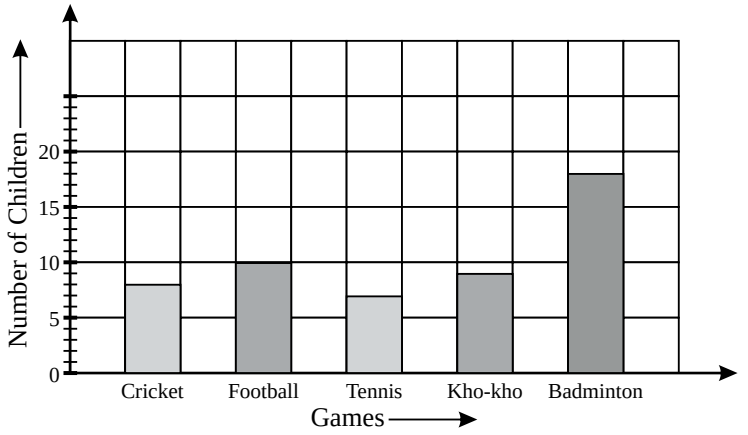
Scale : 1 Unit = 1 child



PLAY TIME

In a locality, the children play different games. Use the information to make a bar graph.

Ans.



Large Numbers

1

Let's Review

B. Ring the greatest number. Put a box around the smallest number. Also write in ascending order.

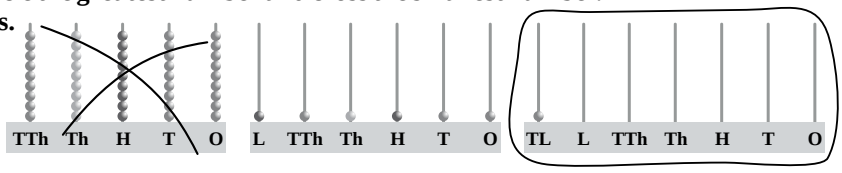
Ans.

1.	2158	2591	2236	2161	2158, 2161, 2236, 2591
2.	1307	4385	8411	6420	1307, 4385, 6420, 8411
3.	4834	3484	4843	8434	3484, 4834, 4843, 8434

Think And Do

Circle the greatest number and cross the smallest number.

Ans.



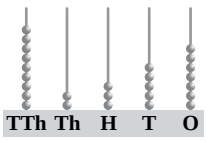
Exercise 1.1

1. Read the abacus and write the number.

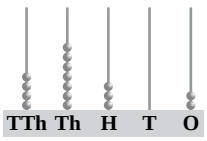
Ans. a. 66,049 b. 592506 c. 36,12,613

2. Show the following numbers on the abacus.

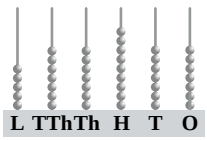
Ans. a.



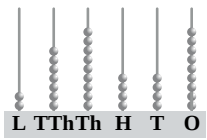
b.



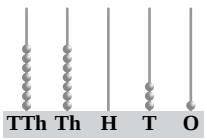
c.



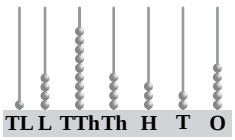
d.



e.



f.



3. Write in figures.

Ans. a. Nine lakh two hundred thirty-two **9,00,232**.
b. Forty-eight thousand nine hundred eighty-four **48,984**.
c. Sixty thousand six **60,006**.
d. Eight lakh forty-three thousand five hundred fifteen **8,43,515**.

4. Write the number names in Indian system.

Ans. a. 23,125 Twenty-three thousand one hundred twenty-five.
b. 2,87,819 Two lakh, eighty-seven thousand eight hundred nineteen.
c. 9,27,471 Nine lakh twenty-seven thousand four hundred seventy-one.
d. 37,17,215 Thirty-seven lakh seventeen thousand two hundred fifteen.
e. 49,85,110 Forty-nine lakh eighty-five thousand one hundred ten.

Project

Ans. Do yourself.

Exercise 1.2

1.	**Numbers**	**Place underlined digit**	**Value of face value of underlined digit.**
Ans. a.	457941	7,000	7
b.	51,212	50,000	5
c.	9,791	700	7
d.	24,713	20,000	2
e.	67,425	60,000	6
f.	4,59,518	8	8
g.	9,29,918	10	1
h.	4,37,518	500	5
i.	3,56,658	3,00,000	3

2. Write the expanded form of the following numbers.

Ans. a. 25,805 = 20,000 + 5000 + 800 + 5
b. 49,125 = 40,000 + 9000 + 100 + 20 + 5
c. 92,234 = 90,000 + 2000 + 200 + 30 + 4
d. 3,47,785 = 3,00,000 + 40,000 + 7,000 + 700 + 80 + 5
e. 9,37,357 = 9,00,000 + 30,000 + 7000 + 300 + 50 + 7
f. 6,75,173 = 6,00,000 + 70,000 + 5000 + 100 + 70 + 3

3. Write the short form of the following numbers.

Ans. a. 10,723 b. 32,176 c. 65,487
d. 3,06,074 e. 9,90,999 f. 4,00,444

4. Fill in the table.

Ans. S.No.	**Predecessor**	**Number**	**Successor**
a.	3,79,439	379440	**3,79,441**
b.	9,73,000	**9,73,01**	**9,73,002**
c.	**8,79,048**	**8,79,049**	879050
d.	4,37,927	**4,37,928**	437929
e.	**8,99,999**	900000	**9,00,001**

Exercise 1.3

1. Compare each pair of numbers. Put >, < or = in the ☐.

Ans. a. < b. < c. < d. =
e. < f. >

2. Arrange the following numbers in ascending order.

Ans. a. 57,028 < 67,082 < 67,280 < 67,820
b. 32,728 < 36,128 < 37,185 < 39,571
c. 4,28,312 < 6,28,470 < 7,17,617 < 8,17,518
d. 4,06,219 < 5,31,325 < 6,15,104 < 61,25,041

3. Arrange the following numbers in descending order.

Ans. a. 63,007 > 62,950 >; 62,590 > 62,509
b. 93,234 > 92,345 > 90,418 > 90,148
c. 9,71,823 > 9,43,126 > 9,17,338 > 9,17,238
d. 9,51,121 > 9,01,246 > 8,31,415 > 8,13,306

4. Write the smallest and greatest number using each of the following digits only once.

Ans.

S.No.	Digits	Smallest	Greatest
a.	8, 0, 7, 0, 4	**40,078**	**87,400**
b.	3, 1, 5, 9, 7	**13,579**	**97,531**
c.	9, 7, 4, 2, 8, 0	**2,04,789**	**9,87,420**
d.	7, 0, 1, 3, 2, 9	**1,02,379**	**9,73,210**
e.	0, 1, 5, 6, 2, 8	**1,02,568**	**8,65210**

5. 103567

6. 91,000; 92,000; 93,000; 94,000; 95,000; 96,000; 97,000; 98,000; 99,000 and 100,000.

7. 10,529; 10,531; 10,533; 10,535; 10,537; 10,539 and 10,541.

8. 20,499; 20,519; 20,539; 20,559; 20,579; 20,599 and 20,619.

9. 10,000; 9,995; 9,990; 9,985 and 9,980.

Exercise 1.4

1. Round off to the nearest tens.

Ans. a. 49 rounded off to the nearest tens is 50.
b. 193 rounded off to the nearest tens is 190.
c. 3756 rounded off to the nearest tens is 3760.
d. 77475 rounded off to the nearest tens is 77,480.
e. 35876 rounded off to the nearest tens is 35,880.
f. 98334 rounded off to the nearest tens is 98,330.

2. Round off to the nearest hundreds.

Ans. a. 446 rounded off to the nearest hundreds is 400.
b. 719 rounded off to the nearest hundreds is 700.
c. 983 rounded off to the nearest hundreds is 1000.
d. 8899 rounded off to the nearest hundreds is 8,900.
e. 16253 rounded off to the nearest hundreds is 16,300.
f. 18997 rounded off to the nearest hundreds is 19,000.

3. Round off the numbers to the nearest 1000.

Ans. a. 3251 rounded off to the nearest 1000 is 3000.
b. 6938 rounded off to the nearest 1000 is 7000.
c. 20518 rounded off to the nearest 1000 is 21,000.
d. 10734 rounded off to the nearest 1000 is 11,000.
e. 19731 rounded off to the nearest 1000 is 20,000.
f. 23126 rounded off to the nearest 1000 is 23,000.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. b. 3. b.

Roman Numerals

2

Let's Review

Who was the first president of India? Dr. Rajendra Prasad**.**

Ans.

1	2	4	9	17	25	45	92
A	J	D	R	E	P	S	N

IV	IX	XX-XI	VI-V	II	XII+V	XCII	II×II	XVIII÷III	XV÷XV	XXV	XL-XXXI	L÷L	IX×V	X-IX	LX÷XV
4	9	9	1	2	17	92	4	9	1	25	9	1	45	1	4
D	R	R	A	J	E	N	D	R	A	P	R	A	S	A	D

Decoded message : D r | R a j e n d r a | P r a s a d

Exercise 2

1. Match the following :

Ans.

32	XXXIX
29	XLVI
46	CDXXXIV
89	XXXII
434	XXIX

2. Write the following in Roman numerals.

Ans.
a. 36 = XXXVI
b. 19 = XIX
c. 39 = XXXIX
d. 47 = XLVII
e. 66 = LXVI
f. 375 = CCCLXXV
g. 499 = CDXCIX
h. 996 = CMXCVI
i. 140 = CXL
k. 555 = DLV
j. 288 = CCLXXXVIII
l. 107 = CVII

3. Write the following in Hindu-Arabic numerals.

Ans.
a. XCV = 95
b. LXI = 61
c. XXVI = 26
d. XXIX = 29
e. DCCI = 701
f. XLVI = 46
g. LXXXIII = 83
h. CMLXXVI = 976
i. XCIII = 93
j. CCCXXXI = 331
k. CDII = 402
l. DCL = 650

4. Write Roman numerals that is.

Ans.
a. XV $\xrightarrow{-1}$ XIV
b. XXX $\xrightarrow{-1}$ XXIX
c. XXII $\xrightarrow{+4}$ XXVI
d. VIII $\xrightarrow{-5}$ III
e. XIV $\xrightarrow{+10}$ XXIV
f. X $\xrightarrow{-3}$ VII
g. XXVIII $\xrightarrow{-7}$ XXI
h. XXI $\xrightarrow{+2}$ XXIII

Life Skills

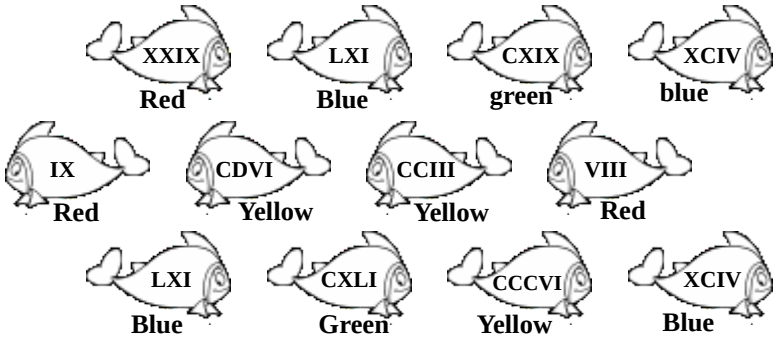
Change Number into Roman Numerals

Ans.
a. There are **XXVII** students in my class.
b. I am **IX** years old.
c. My birthday is on **XVI** of June.
d. Our Independence day is celebrated on **XV** August.

PLAY TIME

First change the Roman numerals into Hindu-Arabic numerals then colour the fish using colour code.

Ans. 1 to 50 Red; 51 to 100 blue; 101 to 150 green; 151 to 500



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. c. 3. b. 4. c.

Addition and Subtraction

3

Let's Review

1. Find out the sum of distances travelled by each deer in both days.

Ans.

Name	Denny	Benny	Tenny	Henny	Menny
Yesterday	750 m	780 m	343 m	475 m	350 m
Today	650 m	573 m	735 m	580 m	830 m
Sum	1400 m	1353 m	1078 m	1055 m	1180 m

2. Who travelled largest distance and by how much ?

Ans. Denny, 1400 m

3. How much more distance travelled by Denny than Tenny ?

Ans. 1400 m – 1078 = 322 m.

Exercise 3.1

1. Add :

Ans. a.
$$\begin{array}{r} 42411 \\ +\,37362 \\ \hline 79773 \end{array}$$
b.
$$\begin{array}{r} 42551 \\ +\,32428 \\ \hline 74979 \end{array}$$
c.
$$\begin{array}{r} 53053 \\ +\,34843 \\ \hline 87896 \end{array}$$
d.
$$\begin{array}{r} 23356 \\ 32420 \\ +\,31002 \\ \hline 86778 \end{array}$$

e.
$$\begin{array}{r} 251123 \\ 13723 \\ +\quad 2021 \\ \hline 266867 \end{array}$$
f.
$$\begin{array}{r} {\scriptstyle (1)(1)(1)(1)} \\ 102032 \\ 267914 \\ +\,31357 8 \\ \hline 683524 \end{array}$$
g.
$$\begin{array}{r} {\scriptstyle (1)(1)(1)(1)} \\ 275061 \\ 242501 \\ +\,34998 7 \\ \hline 867549 \end{array}$$
h.
$$\begin{array}{r} 50243 \\ 15321 \\ +\quad 3024 \\ \hline 68588 \end{array}$$

i.
$$\begin{array}{r} 28406 \\ +\,10580 \\ \hline 38986 \end{array}$$
j.
$$\begin{array}{r} 23405 \\ 12081 \\ +\,42402 \\ \hline 77888 \end{array}$$
k.
$$\begin{array}{r} 51234 \\ 10023 \\ +\,27512 \\ \hline 88769 \end{array}$$
l.
$$\begin{array}{r} {\scriptstyle (1)(2)} \\ 2349 \\ 3247 \\ +\,3394 \\ \hline 8990 \end{array}$$

m.

	①	②	②		
	5	1	9	8	9
	2	5	0	7	4
+	3	2	0	4	7
10	9	1	1	0	

n.

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

2. Find the sum :

Ans. a.

	L	TTh	Th	H	T	O
		2	3	2	0	1
+	3	6	1	2	2	2
	3	8	4	4	2	3

b.

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

c.

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

d.

	L	TTh	Th	H	T	O
					①	
	4	3	7	1	0	5
	1	4	1	4	1	0
+		2	0	0	1	5
	5	9	8	5	3	0

e.

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

f.

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

3. Find the missing digits :

Ans. a.

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

b.

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

c.

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

Exercise 3.2

1. Fill in the blanks :

Ans. a. 4975 + 3751 = **3751** + 4975 b. 4094 + **7141** = 7141 + 4094

c. 4333 + **1129** = 1129 + 4333

d. 1875 + 2420 + 185 = 2420 + **185** + 1875

e. 37945 + **0** + 917 = 917 + 0 + 37945

f. 149 + 3196 + 99 = 3196 + 149 + **99**

g. 1449 + 326 + **7110** = 326 + 7110 + 1449

h. 94317 + **0** = 94317

i. The sum of the largest 5-digit number and 1 is equal to **1,00,000**.

j. 8649 + 98745 = 98745 + **8649**.

k. 310 + 981 + 309 = 981 + 309 + **310**.

l. The successor of 3899 is **3900**.

m. Answer of an addition operation is called **sum**.

n. The numbers which are being added are called **addends**.

Think And Do

Complete the following :

a. **8** + 4 = 12
80 + 40 = 120
800 + 400 = 1200
8000 + 4000 = 12000

b. 5 + **9** = 14
50 + **90** = 140
500 + **900** = 1400
5000 + **9000** = 14000

Exercise 3.3

1. Add:

Ans. a.

	TTh	Th	H	T	O
	(1)		(1)	(1)	
	1	7	3	4	7
+	2	6	2	7	5
	4	3	6	2	2

b.

	TTh	Th	H	T	O
	(1)	(1)			
	1	6	9	3	3
+	5	4	3	0	6
	7	1	2	3	9

c.

	L	TTh	Th	H	T	O
		(1)			(1)	
	4	1	2	3	6	5
+	4	3	9	5	1	5
	8	5	1	8	8	0

d.

	L	TTh	Th	H	T	O
		(2)	(1)	(1)	(1)	
	5	1	9	4	7	2
+	2	1	6	3	2	8
		1	4	5	1	8
	7	5	0	3	1	8

e.

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

f.

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

g.

	L	TTh	Th	H	T	O
	(1)	(2)	(2)	(1)	(1)	
	6	4	8	4	9	8
	1	1	2	7	0	2
		2	8	3	0	1
+		1	6	7	0	3
	8	0	6	2	0	4

h.

	L	TTh	Th	H	T	O
	(1)	(1)	(2)	(1)	(1)	
		6	4	9	9	6
	2	3	3	8	0	5
			2	6	4	5
+	3	1	2	0	0	0
	6	1	3	4	4	6

2. Find the sum of.

Ans. a.

	L	TTh	Th	H	T	O
				(1)	(1)	
	2	2	0	4	9	6
+			3	4	0	6
	2	2	3	9	0	2

b.

	TTh	Th	H	T	O
	(1)		(1)	(1)	
	6	3	2	5	4
+	2	9	0	4	6
	9	2	3	0	0

c.

	L	TTh	Th	H	T	O
				(1)	(2)	
				1	0	8
+			4	7	8	9
		1	5	0	6	4
		1	9	9	6	1

d.

	TTh	Th	H	T	O
	(1)	(2)	(1)	(1)	
	2	1	9	8	7
		1	8	3	2
+	5	9	9	0	9
	8	3	7	2	8

e.

	L	TTh	Th	H	T	O
	(1)	(2)	(1)	(1)	(1)	
	3	2	6	5	3	2
	5	3	8	4	9	5
+		5	6	4	3	4
	9	2	1	4	6	1

f.

	L	TTh	Th	H	T	O
	(1)	(1)			(1)	
	4	3	8	1	0	2
		4	3	3	2	4
+	2	5	4	1	2	6
	7	3	5	5	5	2

g.

	L	TTh	Th	H	T	O
		(1)	(1)	(1)	(1)	
	5	2	6	5	3	2
		3	2	0	6	4
+	1	2	2	5	6	5
	6	8	1	1	6	1

h.

	TTh	Th	H	T	O
	(2)		(3)	(2)	
	3	8	0	3	2
	1	9	2	8	0
		4	0	8	9
+			1	9	9
	6	1	6	0	0

Life Skills

Ans. Do it yourself.

Exercise 3.4

1. Subtract.

a.

TTh	Th	H	T	O
8	7	3	8	6
−4	5	2	6	3
4	2	1	2	3

b.

TTh	Th	H	T	O
9	8	4	0	8
−6	5	3	0	7
3	3	1	0	1

c.

TTh	Th	H	T	O
6	3	4	9	9
−1	2	1	6	9
5	1	3	3	0

d.

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

e.

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

f.

L	TTh	Th	H	T	O
4	7	5	9	6	1
−2	4	2	5	5	1
2	3	3	4	1	0

2. Find the difference :

Ans. a.

TTh	Th	H	T	O
9	7	6	9	9
−8	6	5	9	9
1	1	1	0	0

b.

TTh	Th	H	T	O
9	6	7	8	7
−8	6	4	3	7
1	0	3	5	0

c.

TTh	Th	H	T	O
6	4	6	7	9
−6	3	5	6	9
0	1	1	1	0

d.

L	TTh	Th	H	T	O
6	7	6	6	9	8
−3	4	3	5	3	4
3	3	3	1	6	4

e.

L	TTh	Th	H	T	O
7	6	6	4	3	8
−4	4	3	3	2	1
3	2	3	1	1	7

f.

L	TTh	Th	H	T	O
9	6	4	8	9	6
−5	3	4	2	1	0
4	3	0	6	8	6

3. Fill in the blanks :

Ans. a.

TTh	Th	H	T	O
8	6	(3)	2	8
−(6)	4	1	(8)	(6)
2	(2)	1	4	2

b.

L	TTh	Th	H	T	O
3	(4)	8	(0)	2	1
−	8	6	9	(5)	0
2	6	(1)	0	7	(1)

c.

L	TTh	Th	H	T	O
9	6	(8)	4	3	8
−(3)	(7)	3	(8)	(1)	2
5	9	4	6	2	(6)

4. Fill in the boxes.

Ans.
a. 14,172 – 0 = **14,172**
b. 73,408 – **73,408** = 0
c. 97,233 – **0** = 97,233
d. 47,235 – 47,235 = **0**
e. 6,14,234 – **0** = 6,14,234
f. 4,72,999 – 1 = **4,72,998**

Higher Order Thinking skills

Ans. 1.

7	4	(9)	2	5	
−(5)	1	(0)	8	4	
2	3	8	(4)	1	

2.

9	8	(1)	4	5	0	
−2	4	5	(1)	9	4	
(7)	3	6	2	(5)	6	

3.

6	6	(4)	2	(0)	7	
−3	2	5	1	2	4	
3	(3)	9	0	(8)	3	

4.

3	5	(6)	4	0	9	
−1	3	5	(1)	4	1	
2	(2)	1	2	6	(8)	

Exercise 3.5

1. Subtract.

Ans. a.

	(3)	(12)	(12)		
	~~4~~	~~3~~	~~2~~	6	5
−1	7	5	3	4	
2	5	7	3	1	

b.

	(7)	(14)	(13)	(15)	
4	~~8~~	~~5~~	~~4~~	~~5~~	
−3	3	5	6	6	
1	4	9	7	9	

c.

	(0)	(10)	(8)	(12)	(12)	
9	~~1~~	~~0~~	~~9~~	~~3~~	~~2~~	
−6	0	8	7	8	3	
3	0	2	1	4	9	

d. $\begin{array}{r} {\scriptstyle ⑤\ ⑨\ ⑨\ ⑨\ ⑩} \\ 7\ \cancel{6}\ \cancel{0}\ \cancel{0}\ \cancel{0}\ \cancel{0} \\ -\ 3\ 4\ 3\ 2\ 0\ 7 \\ \hline 4\ 1\ 6\ 7\ 9\ 3 \end{array}$ e. $\begin{array}{r} {\scriptstyle ⑦\ ⑬\ ⑯\ ⑩} \\ 8\ 5\ 8\ 4\ 7\ \cancel{0} \\ -\ 6\ 0\ 1\ 9\ 8\ 3 \\ \hline 2\ 5\ 6\ 4\ 8\ 7 \end{array}$ f. $\begin{array}{r} {\scriptstyle ⑤\ ⑨\ ⑩\ ⑦\ ⑮} \\ 7\ 6\ 0\ 0\ \cancel{8}\ \cancel{5} \\ -\ 4\ 2\ 5\ 1\ 7\ 8 \\ \hline 3\ 3\ 4\ 9\ 0\ 7 \end{array}$

2. Find the difference and check your answer :

Ans. a. $\begin{array}{r} {\scriptstyle ⑦\ ⑭\ ⑩\ ⑩} \\ 8\ 5\ 1\ 0\ 6 \\ -\ 3\ 7\ 2\ 5\ 4 \\ \hline 4\ 7\ 8\ 5\ 2 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①\ ①} \\ 4\ 7\ 8\ 5\ 2 \\ +\ 3\ 7\ 2\ 5\ 4 \\ \hline 8\ 5\ 1\ 0\ 6 \end{array}$

So, subtraction is correct.

b. $\begin{array}{r} {\scriptstyle ⑤\ ⑪\ ⑬} \\ 7\ 6\ 2\ 3\ 9 \\ -\ 7\ 0\ 2\ 9\ 3 \\ \hline 5\ 9\ 4\ 6 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①} \\ 5\ 9\ 4\ 6 \\ +\ 7\ 0\ 2\ 9\ 3 \\ \hline 7\ 6\ 2\ 3\ 9 \end{array}$

So, subtraction is correct.

c. $\begin{array}{r} {\scriptstyle ⑦\ ⑬} \\ 4\ 8\ 3\ 6\ 9 \\ -\ 1\ 5\ 4\ 6\ 7 \\ \hline 3\ 2\ 9\ 0\ 2 \end{array}$ $\begin{array}{r} {\scriptstyle ①} \\ 3\ 2\ 9\ 0\ 2 \\ +\ 1\ 5\ 4\ 6\ 7 \\ \hline 4\ 8\ 3\ 6\ 9 \end{array}$

So, subtraction is correct.

d. $\begin{array}{r} {\scriptstyle ⑤\ ⑩\ ⑮\ ⑦\ ⑪\ ⑭} \\ 6\ 1\ 5\ 8\ 2\ 4 \\ -\ 3\ 3\ 7\ 4\ 6\ 9 \\ \hline 2\ 7\ 8\ 3\ 5\ 5 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①\ \ \ ①\ ①} \\ 2\ 7\ 8\ 3\ 5\ 5 \\ +\ 3\ 3\ 7\ 4\ 6\ 9 \\ \hline 6\ 1\ 5\ 8\ 2\ 4 \end{array}$

So, subtraction is correct.

e. $\begin{array}{r} {\scriptstyle ⑤\ ⑨\ ⑩\ ⑦\ ⑮} \\ 9\ 6\ 0\ 0\ 8\ 5 \\ -\ 6\ 2\ 5\ 1\ 7\ 8 \\ \hline 3\ 3\ 4\ 9\ 0\ 7 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①\ ①} \\ 3\ 3\ 4\ 9\ 0\ 7 \\ +\ 6\ 2\ 5\ 1\ 7\ 8 \\ \hline 9\ 6\ 0\ 0\ 8\ 5 \end{array}$

So, subtraction is correct.

f. $\begin{array}{r} {\scriptstyle ⑦\ ⑨\ ⑨\ ⑨\ ⑩} \\ 8\ 0\ 0\ 0\ 0\ 0 \\ -\ 3\ 4\ 9\ 7\ 3\ 0 \\ \hline 4\ 5\ 0\ 2\ 7\ 0 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①\ ①\ ①} \\ 4\ 5\ 0\ 2\ 7\ 0 \\ +\ 3\ 4\ 9\ 7\ 3\ 0 \\ \hline 8\ 0\ 0\ 0\ 0\ 0 \end{array}$

So, subtraction is correct.

g. $\begin{array}{r} {\scriptstyle ⑦\ ⑨\ ⑯\ ⑥\ ⑩} \\ 8\ 0\ 6\ 7\ 0\ 4 \\ -\ 2\ 5\ 9\ 3\ 7\ 0 \\ \hline 5\ 4\ 7\ 3\ 3\ 4 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①\ \ \ ①} \\ 5\ 4\ 7\ 3\ 3\ 4 \\ +\ 2\ 5\ 9\ 3\ 7\ 0 \\ \hline 8\ 0\ 6\ 7\ 0\ 4 \end{array}$

So, subtraction is correct.

h. $\begin{array}{r} {\scriptstyle ⑥\ ⑨\ ⑨\ ⑨\ ⑨\ ⑩} \\ 7\ 0\ 0\ 0\ 0\ 0 \\ -\ 5\ 9\ 8\ 7\ 6\ 5 \\ \hline 1\ 0\ 1\ 2\ 3\ 5 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①\ ①\ ①\ ①\ ①} \\ 1\ 0\ 1\ 2\ 3\ 5 \\ +\ 5\ 9\ 8\ 7\ 6\ 5 \\ \hline 7\ 0\ 0\ 0\ 0\ 0 \end{array}$

So, subtraction is correct.

i. $\begin{array}{r} {\scriptstyle ④\ ⑩\ ⑫} \\ 8\ 5\ 1\ 2\ 5\ 6 \\ -\ 2\ 1\ 4\ 3\ 2\ 1 \\ \hline 6\ 3\ 6\ 9\ 3\ 5 \end{array}$ $\begin{array}{r} {\scriptstyle ①\ ①} \\ 6\ 3\ 6\ 9\ 3\ 5 \\ +\ 2\ 1\ 4\ 3\ 2\ 1 \\ \hline 8\ 5\ 1\ 2\ 5\ 6 \end{array}$

So, subtraction is correct.

Exercise 3.6

1. Number of men = $\begin{array}{r} {\scriptstyle ①\ ①} \\ 2.3,650 \end{array}$
Number of women = 51,173
Number of children = + 60,850
Total number of people =

\ Total population of the town 1,35,673.

2. Mr Kumar's annual income = ` $\begin{array}{r} {\scriptstyle ⑧\ ⑫} \\ 4,19290 \end{array}$
Less annual income = – ` 5860
Amar's annual income = `

\ Amar's annual income is ` 4,13,430.

3. Number of apples harvested = 55,990
Number of apples sold = 17897
Number of apples are left = 55,990 – 17,8970
= 38,093

So, 38093 apples are left with Raghu.

4. Mobile produce,

in February	=	①① 14,705
in March	=	26,020
in April	= +	30,750
Total number of Mobile produced	=	71,475

So, 71,475 mobile were produced in three months.

5. Total cost of a plot and motorcycle = ` 5,50,000
Cost of motorcycle = – ` 83,754
\ Cost of plot of land = 4,66,246
\ Mr. Millar paid ` 4,66,246 for the plot of land.

6. People visited Shimla,

in this year	=	3,52,469
in the previous year	= +	4,37,218
Total people visited in both year	=	7,89,687

\ 7,89,687 people visited Shimla in both years.

7. Quantity of rice = 8,54,090 kg
Quantity of wheat = – 6,23,479 kg
Rice was more than wheat = 2,30,611 kg
\ 2,30,611 kg rice was more than wheat in the godown.

Exercise 3.7

1. a. Rounded off the numbers to the nearest 10's we get,

Actual value	Estimated value
52	50
27	+ 30
Estimated Sum =	80

b. After rounded off the numbers nearest 10's

Actual value	Estimated value
80	80
38	40

Estimated difference = 80 – 40 = 40

c. After rounded off the numbers nearest 10's

Actual value	Estimated value
914	910
276	280

Estimated sum = 901 + 280 = 1190

d. After rounded off the numbers nearest 10's

Actual value	Estimated value
206	210
145	150

Estimated difference = 210 – 150 = 60

2. a. After rounded off the numbers nearest hundred's

Actual value	Estimated value
686	700
243	200

Estimate sum = 700 + 200 = 900

b. After rounded off the numbers nearest hundred's

Actual value	Estimated value
6174	6200
3318	3300

Estimated difference = 6200 – 3300 = 2900

c. After rounded off the numbers nearest hundred's

Actual value	Estimated value
7521	7500
1687	1700

Estimated sum = 7500 + 1700 = 9200

d. After rounded off numbers nearest hundred's

Actual value	Estimated value
4667	4700
1085	1100

Estimate difference 4700 – 1100 = 3600

3. After rounded off numbers nearest 10's

Actual value	Estimated value
` 18,759	` 18,760
` 1,25,699	` 1,25,700

Estimated sum = ` (18,760 + 1,25,700) = ` 1,44,460

After rounded off numbers nearest 100's

Actual value	Estimated value
` 18759	` 18,800
` 1,25,699	` 1,25,700

Estimated sum = ` (18,800 + 1,25,700) = ` 1,44,500

After rounded off numbers nearest 1000's

Actual value	Estimated value
` 18,759	19000
` 1,25,699	1,26000

Estimated sum = ` (19000 + 1,26,000) = ` 1,45000

Ans. ` 1,44,460, ` 1,44,500, ` 1,45,000

MULTIPLE CHOICE QUESTIONS

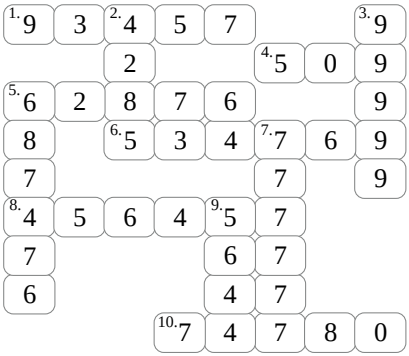
Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. b. 4. b. 5. b.

PLAY TIME

Solve the crossword.

Ans.



Down

2. 4286 - 1
3. successor of 99998
5. 587476 + 100000
7. 87777 - 10000
9. 44384 + 564 = **564** + 44384

Across

1. 93457 + 0
4. 63056 - 62547
5. 62776 + 100
6. 299122 + 235647
8. 457457 - 1000
10. 74770 + 10

Multiplication

4

Let's Review

The picture shows a fruit seller who sells various varieties of fruits. Many people visit to purchase them.

Find :

Ans. a. Shivani buys 3 kg of apples. How much does she pay for it?

```
  ` 80
 × 3
` 240
```

b. Mr Lal buys 2 kg of papaya and 4 kg of oranges. How much does he pay for it?

`40 × 2 = ` 80
`45 × 4 = + ` 180
` 260

c. Mrs Sharma buys 5 kg of mangoes and 1 kg of guava. How much does she pay for it?

`35 × 5 = ` 175
`32 × 1 = + ` 32
` 207

Think And Do

Fill in the blanks.

Ans.

1. 15 × 1 = **15**
2. 4 × **0** × 5 = 0
3. 27 × **1** = 27
4. 16 × **1** = 16
5. 1 × **1** = 1
6. 0 × 0 = **0**
7. 14 × 0 = **0**
8. (3 × 4) × 2 = (2 × 3) × **4**
9. 1 × 33 = **33**
10. 16 × **0** = 0
11. 15 × 8 = 8 × **15**
12. 6 × 5 × **9** = 9 × 6 × **5**

Exercise 4.1

1. Fill in the blanks :

Ans. a. $111 \times 314 = 314 \times \mathbf{111}$ b. $1945 \times 0 = \mathbf{0}$

c. $361 \times 1 = \mathbf{361}$ d. $569 \times 318 \times 937 = 937 \times 318 \times \mathbf{569}$

e. $9100 \times \mathbf{1} = 9100$ f. $1845 \times \mathbf{0} = 0$

2. Find the product :

Ans. a.
$$\begin{array}{r} {\scriptstyle ①\ ②\ \ } \\ 236 \\ \times\ \ 4 \\ \hline 944 \end{array}$$

b.
$$\begin{array}{r} {\scriptstyle ④\ ④\ \ } \\ 167 \\ \times\ \ 6 \\ \hline 1002 \end{array}$$

c.
$$\begin{array}{r} {\scriptstyle \ \ ⑤\ \ } \\ 308 \\ \times\ \ 7 \\ \hline 2156 \end{array}$$

d.
$$\begin{array}{r} {\scriptstyle ④\ ①\ \ } \\ 283 \\ \times\ \ 5 \\ \hline 1415 \end{array}$$

e.
$$\begin{array}{r} {\scriptstyle ①\ ①\ ①\ \ } \\ 2365 \\ \times\ \ 3 \\ \hline 7095 \end{array}$$

f.
$$\begin{array}{r} {\scriptstyle ②\ ②\ ①\ \ } \\ 4653 \\ \times\ \ 4 \\ \hline 18612 \end{array}$$

g.
$$\begin{array}{r} {\scriptstyle ①\ \ ④\ \ } \\ 1308 \\ \times\ \ 6 \\ \hline 7848 \end{array}$$

h.
$$\begin{array}{r} {\scriptstyle ①\ ②\ ③\ \ } \\ 1234 \\ \times\ \ 8 \\ \hline 9872 \end{array}$$

Exercise 4.2

1. Find the product :

Ans. a.
$$\begin{array}{r} 124 \\ \times\ 13 \\ \hline 372 \\ +\ 1240 \\ \hline 1612 \end{array}$$
Ans. 1612

b.
$$\begin{array}{r} 213 \\ \times\ 15 \\ \hline 1065 \\ +\ 2130 \\ \hline 3195 \end{array}$$
Ans. 3195

c.
$$\begin{array}{r} 1875 \\ \times\ 35 \\ \hline 9375 \\ +\ 56250 \\ \hline 65625 \end{array}$$
Ans. 65625

d.
$$\begin{array}{r} 3794 \\ \times\ 75 \\ \hline 18970 \\ +\ 265580 \\ \hline 284550 \end{array}$$
Ans. 284550

2. Find the product :

Ans. a. $378 \times 32 = 12{,}096$

$$\begin{array}{r} 378 \\ \times\ 32 \\ \hline 756 \\ +\ 11340 \\ \hline 12096 \end{array}$$

b. $136 \times 49 = 6{,}664$

$$\begin{array}{r} 136 \\ \times\ 49 \\ \hline 1224 \\ +\ 5440 \\ \hline 6664 \end{array}$$

c. $843 \times 18 = 15{,}174$

$$\begin{array}{r} 843 \\ \times\ 18 \\ \hline 6744 \\ +\ 8430 \\ \hline 15174 \end{array}$$

d. $1395 \times 64 = 89{,}280$

$$\begin{array}{r} 1395 \\ \times\ 64 \\ \hline 5580 \\ +\ 83700 \\ \hline 89280 \end{array}$$

e. $2407 \times 35 = 84245$

$$\begin{array}{r} 2407 \\ \times\ 35 \\ \hline 12035 \\ +\ 72210 \\ \hline 84245 \end{array}$$

f. $3087 \times 37 = 114219$

$$\begin{array}{r} 3087 \\ \times\ 37 \\ \hline 21609 \\ +\ 92610 \\ \hline 114219 \end{array}$$

g. 1539 × 26 = 40,014

```
  1 5 3 9
    × 2 6
---------
  9 2 3 4
+ 3 0 7 8 0
---------
  4 0 0 1 4
```

h. 2056 × 22 = 45,232

```
  2 0 5 6
    × 2 2
---------
  4 1 1 2
+ 4 1 1 2 0
---------
  4 5 2 3 2
```

i. 1234 × 48 = 59,232

```
  1 2 3 4
    × 4 8
---------
  9 8 7 2
+ 4 9 3 6 0
---------
  5 9 2 3 2
```

Exercise 4.3

1. Find the product :

Ans. a. 809 × 312 = 252408

```
    8 0 9
  × 3 1 2
---------
  1 6 1 8
  8 0 9 0
+ 2 4 2 7 0 0
---------
  2 5 2 4 0 8
```

b. 429 × 246 = 1,05,534

```
    4 2 9
  × 2 4 6
---------
  2 5 7 4
1 7 1 6 0
+ 8 5 8 0 0
---------
1 0 5 5 3 4
```

c. 473 × 208 = 98,384

```
    4 7 3
  × 2 0 8
---------
  3 7 8 4
+ 9 4 6 0 0
---------
  9 8 3 8 4
```

d. 606 × 440 = 2,66,640

```
    6 0 6
  × 4 4 0
---------
  2 4 2 4 0
+ 2 4 2 4 0 0
---------
  2 6 6 6 4 0
```

e. 386 × 302 = 1,16,572

```
    3 8 6
  × 3 0 2
---------
    7 7 2
  0 0 0 0
+ 1 1 5 8 0 0
---------
  1 1 6 5 7 2
```

f. 3257 × 181 = 5,89,517

```
    3 2 5 7
  × 1 8 1
---------
  3 2 5 7
2 6 0 5 6 0
+ 3 2 5 7 0 0
---------
  5 8 9 5 1 7
```

g. 1629 × 214 = 348,606

```
    1 6 2 9
  × 2 1 4
---------
  6 5 1 6
1 6 2 9 0
+ 3 2 5 8 0 0
---------
  3 4 8 6 0 6
```

h. 1363 × 543 = 7,40,109

```
    1 3 6 3
  × 5 4 3
---------
  4 0 8 9
  5 4 5 2 0
+ 6 8 1 5 0 0
---------
  7 4 0 1 0 9
```

i. 1318 × 207 = 2,72,826

```
    1 3 1 8
  × 2 0 7
  ---------
    9 2 2 6
  0 0 0 0 0
+ 2 6 3 6 0 0
  ---------
  2 7 2 8 2 6
```

j. 4070 × 960 = 39,07,200

```
    4 0 7 0
  × 9 6 0
  ---------
    0 0 0 0
  2 4 4 2 0 0
3 6 6 3 0 0 0
3 9 0 7 2 0 0
```

k. 8973 × 602 = 54,01,746

```
    8 9 7 3
  × 6 0 2
  ---------
  1 7 9 4 6
  0 0 0 0
5 3 8 3 8 0 0
5 4 0 1 7 4 6
```

l. 1596 × 348 = 5,55,408

```
    1 5 9 6
  × 3 4 8
  ---------
  1 2 7 6 8
  6 3 8 4 0
4 7 8 8 0 0
5 5 5 4 0 8
```

2. Fill in the blanks :

Ans. a. 63 × 200 = **12,600**
b. 79 × 1000 = **79000**
c. 128 × 40 = **5120**
d. 407 × 5000 = **2035000**
e. 325 × 90 = **29250**
f. 82 × 300 = **24600**

Exercise 4.4

1. a. After rounded off the numbers nearest the ten's.

Actual value	Estimated value
82	80
63	60

Estimated product = 80 × 60 = **4800**

b. After rounded off the numbers nearest hundreds

Actual Value	Estimated Value
43	40
32	30

Estimated product = 40 × 30 = **1200**

c. After rounded off the numbers nearest ten's

Actual value	Estimated value
75	80
46	50

Estimated product = 80 × 50 = **4000**

d. After rounded off the numbers nearest ten's

Actual value	Estimated value
26	30
29	30

Estimated product = 30 × 30 = **900**

e. After rounded off the numbers nearest ten's

Actual value	Estimated value
67	70
41	40

Estimated product = 70 × 40 = **2800**

f. After rounded off the number nearest ten's

Actual value	Estimated value
77	80
8	10

Estimated product = 80 × 10 = **800**

2. a. After rounded off the numbers nearest hundred's

Actual value	Estimated value
749	700
261	300

\ Estimated product = 700 × 300 = 210000

b. After rounded off the numbers nearest hundred's

Actual value	Estimated value
327	300
816	800

Estimated product = 300 × 800 = 240000

c. After rounded off the numbers nearest hundred's

Actual value	Estimated value
536	500
748	700

Estimated product = 500 × 700 = 350000

d. After rounded off the numbers nearest hundred's

Actual value	Estimated value
634	600
459	500

\ Estimated product = 600 × 500 = 3,00,000

e. After rounded off the numbers nearest hundred's

Actual value	Estimated value
853	900
393	400

Estimated product = 900 × 400 = 360000

f. After rounded off the numbers nearest hundred's

Actual value	Estimated value
407	400
231	200

Estimated product = 400 × 200 = 80000

Exercise 4.5

1. Rajni pays her school fee in 1 month = ` 997

\ Rajni paid her school fee in 12 month = ` 997 × 12

= ` 11,964.

So, Rajni will paid ` 11,964 as fee for a year.

```
   997
   × 12
  1994
  9970
 11964
```

2. Number of mangoes packed in 1 box = 135

\ Number of mangoes packed in 32 boxes = 135 × 32

= 4320

\ A farmer will pack 4320 mangoes in the 32 boxes.

```
   135
   × 32
   270
  4050
  4320
```

3. There are days in 1 year = 365

\ There are days in 8 years = 365 × 8 = 2920

So, there are 2920 days in 8 years.

4. 1 day = 24 hours = 24 × 60 minutes = 1440 minutes

Our heart beats in 1 minutes = 72 times

\ Our heart beats in 1440 minutes = 72 × 1440 times

= 1,03,680 times

So, our hearts beats 1,03,680 times in a day.

```
  1 4 4 0
    × 7 2
  ---------
    2 8 8 0
1 0 0 8 0 0
1 0 3 6 8 0
```

5. The cost of 1 trourer = ` 1279

\ The cost of 26 trourers = ` 1279 × 26 = ` 33,254

\ The cost of 26 trouser will be ` 33,254.

```
  1 2 7 9
    × 2 6
  ---------
    7 6 7 4
  2 5 5 8 0
  3 3 2 5 4
```

6. Weight of 1 papaya = 1288 grams

\ Weight of 157 papaya = 1288 × 157

= 2,02,216 grams

So, weight of 157 papaya is 202 kg 216 grams.

```
  1 2 8 8
    × 1 5 7
  ---------
    9 0 1 6
  6 4 4 0 0
1 2 8 8 0 0
2 0 2 2 1 6
```

7. 1 truck carrys the boxes of apples = 3432

\ 6 trucks will carry the boxes of apples = 3432 × 6

= 20592

So, 6 trucks will carry 20,592 boxes of apples.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. a. 4. c.

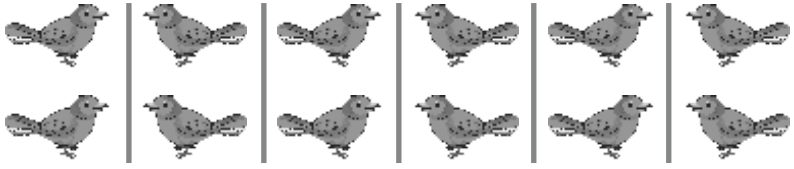
Division

5

Let's Review

1. Divide these 12 birds into groups of 2 each. Into how many groups can you divide the birds ?

Ans.

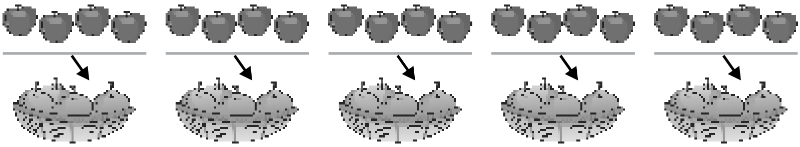


12 ÷ 2 = 6

↓ Dividend ↓ Divisor ↓ Quotient

2. Put these 20 apples in 5 baskets such that there are an equal number of apples in each box :

Ans.



(20) ÷ (5) = (4)

↓ Dividend ↓ Divisor ↓ Quotient

Exercise 5.1

Fill in the blanks :

Ans. a. 214 ÷ 1 = **214** b. 175 ÷ **1** = 175 c. **25** ÷ 1 = 25

d. 180 ÷ 180 = **1** e. 12 ÷ **12** = 1 f. **0** ÷ 9 = 0

g. 0 ÷ 415 = **0** h. **0** ÷ 16 = 0 i. **99** ÷ 99 = 1

Exercise 5.2

1. Divide and check your answer.

Ans. a.

```
   102
3)308
 – 3↓
   00
 –  0↓
   08
 –  6
    2
```

308 ÷ 3

Divisor = 3, Dividend = 308

Quotient = 102, Remainder = 2

Check : Divisor × Quotient + Remainder = Dividend

3 × 102 + 2 = 306 + 2 = 308

Thus, the division is correct.

b.

```
    43
 6)259
 – 24↓
    19
 – 18
     1
```

259 ÷ 6

Divisor = 6, Quotient = 43

Remainder = 1, Dividend = 259

Check : Divisor × Quotient + Remainder = Dividend

6 × 43 + 1 = 258 + 1 = 259

Thus, the division is correct.

c.

```
    33
 7)235
 – 21↓
    25
 – 21
     4
```

235 ÷ 7

Divisor = 7, Quotient = 33

Remainder = 4 Dividend = 235

Check : Divisor × Quotient + Remainder = Dividend

7 × 33 + 4 = 231 + 4 = 235

Thus, the division is correct.

d.

```
    91
 8)729
 – 72↓
    09
  – 8
     1
```

729 ÷ 8

Divisor = 8, Quotient = 91

Remainder = 1, Dividend = 729

Check : Divisor × Quotient + Remainder = Dividend

$8 \times 91 = 728 + 1 = 728 + 1 = 729$

Thus, the division is correct.

e.
$$\begin{array}{r} 108 \\ 9\overline{)978} \\ -9\downarrow\downarrow \\ \hline 078 \\ -72 \\ \hline 6 \end{array}$$

$978 \div 9$

Divisor = 9, Quotient = 108

Remainder = 6, Dividend = 978

Check : Divisor × Quotient + Remainder = Dividend

$9 \times 108 + 6 = 972 + 6 = 978$

Thus, the division is correct.

f.
$$\begin{array}{r} 29 \\ 9\overline{)267} \\ -18\downarrow \\ \hline 87 \\ -81 \\ \hline 6 \end{array}$$

$267 \div 9$

Divisor = 9, Quotient = 29

Remainder = 6, Dividend = 267

Check : Divisor × Quotient + Remainder = Dividend

$9 \times 29 + 6 = 261 + 6 = 267$

Thus, the division is correct.

g.
$$\begin{array}{r} 50 \\ 9\overline{)457} \\ -45\downarrow \\ \hline 07 \\ -\ 0 \\ \hline 7 \end{array}$$

$457 \div 9$

Divisor = 9, Quotient = 50 Remainder = 7

Check : Divisor × Quotient + Remainder = Dividend

$9 \times 50 + 7 = 450 + 7 = 457$

Thus, the division is correct.

h.
$$\begin{array}{r} 129 \\ 7\overline{)903} \\ -7\downarrow \\ \hline 20 \\ -14 \\ \hline 63 \\ 63 \\ \hline 0 \end{array}$$

$903 \div 7$

Divisor = 7, Quotient = 129

Remainder = 0 Divided = 903

Check : Divisor × Quotient + Remainder = Dividend

$7 \times 129 + 0 = 903 + 0 = 903$

Thus, division is correct.

i.
$$\begin{array}{r} 1076 \\ 2\overline{)2153} \\ -2\downarrow\downarrow \\ \hline 015 \\ -14 \\ \hline 13 \\ -12 \\ \hline 1 \end{array}$$

$2153 \div 2$

Divisor = 2, Quotient = 1076,

Remainder = 1 dividend = 2153

Check :

Divisor × Quotient + Remainder = Dividend

$2 \times 1076 + 1 = 2152 + 1 = 2153$

Thus, the division is correct.

j.
$$\begin{array}{r} 216 \\ 3\overline{)649} \\ -6\downarrow \\ \hline 4 \\ -3 \\ \hline 19 \\ 18 \\ \hline 1 \end{array}$$

$649 \div 3$

Divisor = 3, Quotient = 216

Remainder = 1, dividend = 649

Check :

Divisor × Quotient

$3 \times 216 + 1 = 648 + 1 = 649$

Thus, the division is correct.

k.

$$\begin{array}{r} 1265 \\ 6\overline{)7595} \\ -6 \\ \hline 15 \\ -12 \\ \hline 39 \\ -36 \\ \hline 35 \\ -30 \\ \hline 5 \\ \hline \end{array}$$

7595 ÷ 6
Divisor = 6, Quotient = 1265
Remainder = 5, Dividend = 7595
Check :
Divisor × Quotient + Remainder = Dividend
6 × 1265 + 5 = 7590 + 5 = 7595
Thus, division is correct.

l.

$$\begin{array}{r} 1054 \\ 8\overline{)8437} \\ -8 \\ \hline 04 \\ -0 \\ \hline 43 \\ -40 \\ \hline 37 \\ -32 \\ \hline 5 \\ \hline \end{array}$$

8437 ÷ 8
Divisor = 8, Quotient = 1054
Remainder = 5 Dividend = 8437
Check :
Divisor × Quotient + Remainder
= Dividend
8 × 1054 + 5 = 8432 + 5 = 8437
Thus, the division is correct.

m.

$$\begin{array}{r} 1346 \\ 3\overline{)4040} \\ -3 \\ \hline 10 \\ -9 \\ \hline 14 \\ -12 \\ \hline 20 \\ -18 \\ \hline 2 \\ \hline \end{array}$$

4040 ÷ 3
Divisor = 3, Quotient = 1346, Remainder = 2
and Dividend = 4040
Check :
Divisor × Quotient + Remainder = Dividend
3 × 1346 + 2 = 4038 + 2 = 4040 = Dividend
So, the division is correct.

n.

$$\begin{array}{r} 402 \\ 6\overline{)2416} \\ -24 \\ \hline 16 \\ -12 \\ \hline 4 \\ \hline \end{array}$$

2416 ÷ 6
Divisor = 6, Quotient = 402
Remainder = 4, Dividend = 2416
Check :
Divisor × Quotient + Remainder = Dividend
6 × 402 + 4 = 2412 + 4 = 2416 = Dividend
So, the division is correct.

o.

$$\begin{array}{r} 353 \\ 3\overline{)1059} \\ -9 \\ \hline 15 \\ -15 \\ \hline 9 \\ -9 \\ \hline 0 \\ \hline \end{array}$$

1059 ÷ 3
Divisor = 3, Quotient = 353
Remainder = 0, Dividend = 1059
Check :
Divisor × Quotient + Remainder = Dividend
3 × 353 + 0 = 1059 = dividend
So, the division is correct.

p.
$$\begin{array}{r} 912 \\ 4\overline{)3648} \\ -36 \\ \hline 4 \\ -4 \\ \hline 8 \\ -8 \\ \hline 0 \end{array}$$

Divisor = 4, Quotient = 912
Remainder = 0, Dividend = 3648
Check : Divisor × Quotient + Remainder = Dividend
4 × 912 + 0 = 3648 = 3648 = Dividend
So, the division is correct.

2. a.
$$\begin{array}{r} 323 \\ 3\overline{)969} \\ -9 \\ \hline 06 \\ -6 \\ \hline 09 \\ -9 \\ \hline 0 \end{array}$$

Quotient = 323
Remainder = 0

b.
$$\begin{array}{r} 115 \\ 8\overline{)924} \\ -8 \\ \hline 12 \\ -8 \\ \hline 44 \\ -40 \\ \hline 4 \end{array}$$

Quotient = 115
Remainder = 4

c.
$$\begin{array}{r} 211 \\ 4\overline{)844} \\ -8 \\ \hline 04 \\ -4 \\ \hline 04 \\ -4 \\ \hline 0 \end{array}$$

Quotient = 211
Remainder = 0

d.
$$\begin{array}{r} 124 \\ 7\overline{)874} \\ -7 \\ \hline 17 \\ -14 \\ \hline 34 \\ -28 \\ \hline 6 \end{array}$$

Quotient = 124
Remainder = 6

e.
$$\begin{array}{r} 123 \\ 6\overline{)738} \\ -6 \\ \hline 13 \\ -12 \\ \hline 18 \\ -18 \\ \hline 0 \end{array}$$

Quotient = 123
Remainder = 0

f.
$$\begin{array}{r} 113 \\ 5\overline{)565} \\ -5 \\ \hline 06 \\ -5 \\ \hline 15 \\ -15 \\ \hline 0 \end{array}$$

Quotient = 113
Remainder = 0

g.
$$\begin{array}{r} 3181 \\ 3\overline{)9543} \\ -9 \\ \hline 5 \\ -3 \\ \hline 24 \\ 24 \\ \hline 3 \\ -3 \\ \hline 0 \end{array}$$

Quotient = 3181
Remainder = 0

h.
$$\begin{array}{r} 1436 \\ 6\overline{)8616} \\ -6\downarrow \\ \hline 26 \\ -24\downarrow \\ \hline 21 \\ -18\downarrow \\ \hline 36 \\ -36 \\ \hline 0 \end{array}$$

Quotient = 1436
Remainder = 0

i.
```
   897
6)5383
 −48
  58
 −54
   43
 −42
    1
```
Quotient = 897
Remainder = 1

j.
```
   757
9)6818
 −63
  51
 −45
   68
 −63
    5
```
Quotient = 757
Remainder = 5

k.
```
  1347
7)9432
 −7
  24
 −21
   33
 −28
    52
 −49
    03
```
Quotient = 1347
Remainder = 3

l.
```
   731
7)5120
 −49
  22
 −21
   10
 −7
    3
```
Quotient = 731
Remainder = 3

m.
```
  1201
5)6005
 −5
  10
 −10
    0
 −0
   05
 −05
    0
```
Quotient = 1201
Remainder = 0

n.
```
  1887
4)7550
 −40
  35
 −32
   35
 −32
   30
 −28
    2
```
Quotient = 1887
Remainder = 2

o.
```
  1856
4)7424
 −4
  34
 −32
   22
 −20
   24
 −24
    0
```
Quotient = 1856
Remainder = 0

p.
```
  2284
2)4568
 −4
  05
 −4
  16
 −16
   08
 −8
   0
```
Quotient = 2284
Remainder = 0

Exercise 5.3

1. Fill in the blanks.

Ans. a. 20000 ÷ 1000 fi Q = **20**
b. 3200 ÷ 100fi Q = **32**
c. 3000 ÷ 100 fi Q = **30**
d. 15000 ÷ 1000fi Q = **15**
e. 780 ÷ 10 fi Q = **78**
f. 92000 ÷ 1000fi Q = **92**
g. 612000 ÷ 1000fi Q = **612**
h. 69000 ÷ 1000fi Q = **69**

2. Divide the following numbers by 10 and write the quotient and remainder.

Ans. When a number is divided by 10, the digit at the ones place is remainder and rest of digits are quotient.

	Q	**R**
a. 961 ÷ 10	96	1

b.	398 ÷ 10	39	8
c.	462 ÷ 10	46	2
d.	1011 ÷ 10	101	1
e.	2654 ÷ 10	265	4
f.	12345 ÷ 10	1234	5
g.	3922 ÷ 10	392	2
h.	894 ÷ 10	89	4

3. Divide the following numbers by 100.

Ans. When a number is divided by 100, the digits at ones and tens places are remainder and rest are quotient.

		Q	**R**
a.	925 ÷ 100	9	25
b.	52630 ÷ 100	526	30
c.	3498 ÷ 100	34	98
d.	25607 ÷ 100	256	07
e.	5629 ÷ 100	56	29
f.	71808 ÷ 100	718	08
g.	13629 ÷ 100	136	29
h.	4810 ÷ 100	48	10

4. Divide the following numbers by 1000.

Ans. When a number is divided by 1000, the digits at the ones tens and hundreds place are the remainder and rest are quotient.

		Q	**R**
a.	6800 ÷ 1000	6	800
b.	5209 ÷ 1000	5	209
c.	3856 ÷ 1000	3	856
d.	21347 ÷ 1000	21	347
e.	62820 ÷ 1000	62	820
f.	51058 ÷ 1000	51	058
g.	72002 ÷ 1000	72	002
h.	572009 ÷ 1000	572	009

Exercise 5.4

1. Divide and check your answer.

Ans. a.

$$\begin{array}{r} 28 \\ 21\overline{)600} \\ -\,42 \\ \hline 180 \\ -\,168 \\ \hline 12 \end{array}$$

So, Q = 28, R = 12
Check : Q × D + R
= Dividend
28 × 21 + 12 = 588 + 12
= 600 (Dividend)
So, answer is correct.

b.

$$\begin{array}{r} 5 \\ 16\overline{)\,93} \\ -\,80 \\ \hline 13 \end{array}$$

So, Q = 5, R = 13
Check : Q × D + R
= Dividend
5 × 16 + 13 = 80 + 13
= 93 (Dividend)
So, answer is correct.

c.
$$\begin{array}{r} 41 \\ 18\overline{)755} \\ -\,72 \\ \hline 35 \\ -\,18 \\ \hline 17 \end{array}$$

So, Q = 41, R = 17
Check : Q × D + R
= Dividend
41 × 18 + 17 = 738 + 17
= 755 (Dividend)
So, answer is correct.

d.
$$\begin{array}{r} 51 \\ 15\overline{)769} \\ -\,75 \\ \hline 19 \\ -\,15 \\ \hline 4 \end{array}$$

So, Q = 51, R = 4
Check : Q × D + R
= Dividend
15 × 51 + 4 = Dividend
765 + 4 = 769 = dividend
So, answer is correct.

e.
$$\begin{array}{r} 19 \\ 14\overline{)278} \\ -\,14 \\ \hline 138 \\ -\,126 \\ \hline 12 \end{array}$$

So, Q = 19, R = 12
Check : Q × D + R = Dividend
19 × 14 + 12 = Dividend
266 + 12 = 278 = Dividend
So, answer is correct.

f.
$$\begin{array}{r} 32 \\ 18\overline{)579} \\ -\,54 \\ \hline 39 \\ -\,36 \\ \hline 3 \end{array}$$

So, Q = 32, R = 3
Check : Q × D + R = Dividend
32 × 18 + 3 = 576 + 3
= 579 = (Dividend)
So, answer is correct.

g.
$$\begin{array}{r} 8 \\ 51\overline{)426} \\ -\,408 \\ \hline 18 \end{array}$$

So, Q = 8, R = 18
Check : Q × D + R = Dividend
8 × 51 + 18 = Dividend
408 + 18 = 426 = Dividend
So, answer is correct.

h.
$$\begin{array}{r} 27 \\ 21\overline{)567} \\ -\,42 \\ \hline 147 \\ -\,147 \\ \hline 0 \end{array}$$

So, Q = 27, R = 0
Check : Q × D + R = Dividend
27 × 21 + 0 = 567 + 0
567 = Dividend
So, answer is correct.

i.
$$\begin{array}{r} 45 \\ 16\overline{)735} \\ -\,64 \\ \hline 95 \\ -\,80 \\ \hline 15 \end{array}$$

So, Q = 45, R = 15
Check : Q × D + R = Dividend
45 × 16 + 15 = 720 + 15
= Dividend
735 = Dividend
So, answer is correct.

j.
$$\begin{array}{r} 7 \\ 25\overline{)175} \\ -\,175 \\ \hline 0 \end{array}$$

So, Q = 7, R = 0
Check : Q × D + R = Dividend
7 × 25 + 0 = 175 + 0
= Dividend
175 = Dividend
So, answer is correct.

k.
$$\begin{array}{r} 23 \\ 22\overline{)525} \\ -\,44 \\ \hline 85 \\ -\,66 \\ \hline 19 \end{array}$$

So, Q = 23, R = 19
Check : Q × D + R
= Dividend
23 × 22 + 19 = 506 + 19
= Dividend
525 = Dividend
So, answer is correct.

l.
$$\begin{array}{r} 30 \\ 23\overline{)695} \\ -\,69 \\ \hline 05 \\ -\,00 \\ \hline 5 \end{array}$$

So, Q = 30, R = 5
Check : Q × D + R
= Dividend
30 × 23 + 5 = 690 + 5
= Dividend
695 = Dividend
So, answer is correct.

2. Divide the following and write the quotient and remainder.

Ans. a.
$$\begin{array}{r} 7 \\ 35\overline{)257} \\ -\,245 \\ \hline 12 \end{array}$$
Q = 7, R = 12

b.
$$\begin{array}{r} 9 \\ 81\overline{)735} \\ -\,729 \\ \hline 6 \end{array}$$
Q = 9, R = 6

c.
$$\begin{array}{r} 9 \\ 44\overline{)433} \\ -\,396 \\ \hline 37 \end{array}$$
Q = 9, R = 37

d.
$$\begin{array}{r} 8 \\ 42\overline{)345} \\ -\,336 \\ \hline 9 \end{array}$$
Q = 8, R = 9

e.
$$\begin{array}{r} 4 \\ 62\overline{)304} \\ -\,248 \\ \hline 56 \end{array}$$
Q = 4, R = 56

f.
$$\begin{array}{r} 7 \\ 38\overline{)281} \\ -\,266 \\ \hline 15 \end{array}$$
Q = 7, R = 15

g.
$$\begin{array}{r} 11 \\ 45\overline{)513} \\ -\,45 \\ \hline 63 \\ -\,45 \\ \hline 18 \end{array}$$
Q = 11, R = 18

h.
$$\begin{array}{r} 6 \\ 18\overline{)115} \\ -\,108 \\ \hline 7 \end{array}$$
Q = 6, R = 7

i.
$$\begin{array}{r} 7 \\ 34\overline{)256} \\ -\,238 \\ \hline 18 \end{array}$$
Q = 7, R = 18

j.
$$\begin{array}{r} 8 \\ 56\overline{)460} \\ -\,448 \\ \hline 12 \end{array}$$
Q = 8, R = 12

k.
$$\begin{array}{r} 4 \\ 21\overline{)104} \\ -\,84 \\ \hline 20 \end{array}$$
Q = 4, R = 20

l.
$$\begin{array}{r} 7 \\ 18\overline{)141} \\ -\,126 \\ \hline 15 \end{array}$$
Q = 7, R = 15

m.
$$\begin{array}{r} 4 \\ 57\overline{)231} \\ -\,228 \\ \hline 3 \end{array}$$
Q = 4, R = 3

n.
$$\begin{array}{r} 11 \\ 77\overline{)904} \\ -\,77 \\ \hline 134 \\ -\,77 \\ \hline 57 \end{array}$$
Q = 11, R = 57

o.
$$\begin{array}{r} 15 \\ 38\overline{)607} \\ -\,38 \\ \hline 227 \\ -\,190 \\ \hline 37 \end{array}$$
Q = 15, R = 37

p.
$$\begin{array}{r} 11 \\ 82\overline{)952} \\ -\,82 \\ \hline 132 \\ -\,82 \\ \hline 50 \end{array}$$

3. Divide and check your answer.

Ans. a.
$$\begin{array}{r} 170 \\ 52\overline{)8841} \\ -\,52 \\ \hline 364 \\ -\,364 \\ \hline 01 \\ -\;0 \\ \hline 1 \end{array}$$

Quotient = 170, Remainder = 1
Divisor = 52, Dividend = 8841
Check : Q × D + R = Dividend
170 × 52 + 1 = 8840 + 1 = 8841 = Dividend
So, answer is correct.

b.
$$\begin{array}{r} 39 \\ 53\overline{)2089} \\ -\,159 \\ \hline 499 \\ -\,477 \\ \hline 22 \end{array}$$

Quotient = 39, Remainder = 22
Divisor = 53, Dividend = 2089
Check : Q × D + R = Dividend
39 × 53 + 22 = 2067 + 22 = 2089 = Dividend
So, answer is correct.

c.
$$\begin{array}{r} 55 \\ 93\overline{)5204} \\ -\,465 \\ \hline 554 \\ -\,465 \\ \hline 89 \end{array}$$

Quotient = 55, Remainder = 89
Divisor = 93, Dividend = 5204
Check : Q × D + R = Dividend
55 × 93 + 89 = 5115 + 89 = 5204 = Dividend
So, answer is correct.

d.
$$\begin{array}{r} 133 \\ 48\overline{)6400} \\ -\,48 \\ \hline 160 \\ -\,144 \\ \hline 160 \\ -144 \\ \hline 16 \end{array}$$

Quotient = 133, Remainder = 16
Divisor = 48, Dividend = 6400
Check : Q × D + R = Dividend
133 × 48 + 16 = 6384 + 16 = 6400 = Dividend
So, answer is correct.

e.
$$\begin{array}{r} 84 \\ 75\overline{)6301} \\ -\,600 \\ \hline 301 \\ -\,300 \\ \hline 1 \end{array}$$

6301 by 75
Quotient = 84, Remainder = 1
Divisor = 75, Dividend = 6301
Check : Q × D + R = Dividend
84 × 75 + 1 = 6300 + 1 = 6301 = Dividend
So, answer is correct.

f.

$$\begin{array}{r} 158 \\ 28\overline{)4424} \\ -28 \\ \hline 162 \\ -140 \\ \hline 224 \\ -224 \\ \hline 0 \\ \hline \end{array}$$

Quotient = 158, Remainder = 0
Divisor = 28, Dividend = 4424
Check : Q × D + R = Dividend
158 × 28 + 0 = 4424 + 0 = 4424 = Dividend
So, answer is correct.

g.

$$\begin{array}{r} 241 \\ 17\overline{)4110} \\ -34 \\ \hline 71 \\ -68 \\ \hline 30 \\ -17 \\ \hline 13 \\ \hline \end{array}$$

4110 by 17
Quotient = 24,
Remainder = 13
Divisor = 17, Dividend = 4110
Check : Q × D + R = Dividend
241 × 17 + 13 = 4097 + 13
= 4110 = Dividend
So, answer is correct.

h.

$$\begin{array}{r} 206 \\ 18\overline{)3708} \\ -36\downarrow\downarrow \\ \hline 108 \\ -108 \\ \hline 0 \\ \hline \end{array}$$

Quotient = 206, Remainder = 0
Divisor = 18, Dividend = 3708
Check : Q × D + R = Dividend
206 × 18 + 0 = 3708 + 0 = 3708 = Dividend
So, answer is correct.

i.

$$\begin{array}{r} 116 \\ 29\overline{)3374} \\ -29 \\ \hline 47 \\ -29 \\ \hline 184 \\ -174 \\ \hline 10 \\ \hline \end{array}$$

3374 by 29
Quotient = 116, Remainder = 10
Divisor = 29, Dividend = 3374
Check : Q × D + R = Dividend
116 × 29 + 10 = 3364 + 10
= 3374 = Dividend
So, answer is correct.

j.

$$\begin{array}{r} 155 \\ 41\overline{)6394} \\ -41 \\ \hline 229 \\ -205 \\ \hline 244 \\ -205 \\ \hline 39 \\ \hline \end{array}$$

Quotient = 155, Remainder = 39
Divisor = 41, Dividend = 6394
Check : Q × D + R = Dividend
155 × 41 + 39 = 6355 + 39 = 6394 Dividend
So, answer is correct.

k.

$$\begin{array}{r} 146 \\ 62\overline{)9084} \\ -62 \\ \hline 288 \\ -248 \\ \hline 404 \\ -372 \\ \hline 32 \\ \hline \end{array}$$

Quotient = 146, Remainder = 32
Divisor = 62, Dividend = 9084
Check : Q × D + R = Dividend
146 × 62 + 32 = 9052 + 32 = 9084 Dividend
So, answer is correct.

l.
$$\begin{array}{r} 130 \\ 27\overline{)3533} \\ -27 \\ \hline 83 \\ -81 \\ \hline 23 \\ -0 \\ \hline 23 \end{array}$$

3533 by 27
Quotient = 130, Remainder = 0
Divisor = 27, Dividend = 3533
Check : Q × D + R = Dividend
130 × 27 + 23 = 3510 + 23 = 3533 Dividend
So, answer is correct.

Exercise 5.5

1. Fill in the table and estimate the quotient.

Ans.

	QUESTION	ROUNDS TO	DIVISION	ESTIMATED QUOTIENT
a.	78 ÷ 18	10	80 ÷ 20 = 8 ÷ 2	4
b.	289 ÷ 69	10	290 ÷ 70 = 29 ÷ 7	4
c.	691 ÷ 51	10	690 ÷ 50 = 69 ÷ 5	13
b.	753 ÷ 29	10	750 ÷ 30 = 75 ÷ 3	25
c.	64 ÷ 21	10	60 ÷ 20 = 6 ÷ 2	3

2. Estimate the quotient by rounding off the numbers to the nearest tens, ignore the remainders, if any :

Ans. a. 63 ÷ 18 is rounded off to the nearest 10,
60 ÷ 20 = 6 ÷ 2 = 3
So, estimated quotient is **3**.

b. 178 ÷ 30 is rounded off to the nearest 10,
180 ÷ 30 = 18 ÷ 3 = 6.
So, estimated quotient is **6**.

c. 575 ÷ 58 is rounded off to the nearest 10,
580 ÷ 60 = 58 ÷ 6 = 9
So, estimated quotient is **9**.

d. 315 ÷ 51 is rounded off to the nearest 10,
320 ÷ 50 = 32 ÷ 5 = 6.
So, estimated quotient is **6**.

e. 491 ÷ 24 is rounded off to the nearest 10,
490 ÷ 20 = 49 ÷ 2 = 24
So, estimated quotient is **24**.

f. 251 ÷ 22 is rounded off to the nearest 10,
250 ÷ 20 = 25 ÷ 2 = 12
So, estimated quotient is **12**.

g. 9125 ÷ 73 is rounded off to the nearest 10.
9130 ÷ 70 = 913 ÷ 7 = 130
So, estimated quotient is **130**.

h. 1012 ÷ 15 is rounded off to the nearest 10
1010 ÷ 20 = 101 ÷ 2 = 50
So, estimated quotient is **50**.

Higher Order Thinking skills

Ans. Number of packets = 9
Number of toffees in each packet = 50

Total number of toffees = 9 × 50 = 450 toffees.
6 toffees are packed in 1 box.
450 toffees are packed in 450 ÷ 6 = 75 boxes.
So, shopkeeper will get 75 boxes.

Exercise 5.6

Solve these story sums.

Ans. 1. Earnings of 8 days = ` 9600
\ Earning of 1 days = ` 9600 ÷ 8 = ` 1200
\ Earnings of 30 days = ` 1200 × 30 = ` 36000
So, saurave will earn ` 36000 in 30 days.

```
     1200
  8)9600
  - 8
    16
  - 16
     0
    - 00
      0
    - 00
      0
```

2. Cost of 23 books = ` 2875
\ Cost of 1 book = ` 2875 ÷ 23 = ` 125
So, the cost of 1 book is ` 125.

```
     125
 23)2875
  - 23
    57
  - 46
    115
  - 115
      0
```

3. Total number of saplings = 225
Number of row = 9
\ Number of saplings in each row = 225 ÷ 9 = 25
So there were 25 saplings planted in each row.

```
     25
  9)225
  - 18
    45
  - 45
     0
```

4. Total numbers of crayons = 6385
Number of children = 51
Each child gets crayons = 6385 ÷ 51
Q = 125 and R = 10
So, each child get 125 crayons and 10 crayons are left over.

```
     125
 51)6385
  - 51
    128
  - 102
    265
  - 255
     10
```

5. The cost of 25 tickets = ` 2125
The cost of 1 ticket = ` 2125 ÷ 25 = ` 85
So, the cost of ticket is ` 85.

```
     85
 25)2125
  - 200
    125
  - 125
     0
```

6. Total number of cakes produced = 7050
Number of days = 30
Number of cakes are produced in a day = 7050 ÷ 30 = 235
So, 235 cakes are produced in a day.

```
     235
 30)7050
  - 60
    105
  - 90
    150
  - 150
      0
```

7. Total length of rope = 3825 cm.
Measurement of each piece = 35 cm
\ Number of pieces can be cut = 3825 ÷ 35
Q = 109, R = 10
So, 109 pieces can be cut and 10 cm rope will be left over.

$$\begin{array}{r} 109 \\ 35\overline{)3825} \\ -\,35\downarrow\downarrow \\ \hline 325 \\ -\,315 \\ \hline 10 \end{array}$$

Exercise 5.7

Ans. 1. The cost of 20 chocolates = ` 360
\ The cost of 1 chocolates = ` 360 ÷ 20 = ` 18
\ The cost of 23 chocolates = ` 18 × 23 = ` 414
So, ` 414 will be the cost of 23 chocolates.

$$\begin{array}{r} 18 \\ 20\overline{)360} \\ -\,20 \\ \hline 160 \\ -\,160 \\ \hline 0 \end{array}$$

2. 1 year = 12 months
The rent of 12 months = ` 48120
\ The rent of 1 month = ` 48120 ÷ 12 = ` 4010
\ The rent of 7 months = ` 4010 × 7 = ` 28070
So, ` 28070 will have to be paid as the rent of the building.

$$\begin{array}{r} 4010 \\ 12\overline{)48120} \\ -\,48 \\ \hline 12 \\ -\,12 \\ \hline 00 \\ -\,0 \\ \hline 0 \end{array}$$

3. 1 dozen = 12
The cost of 12 bananas = ` 300
The cost of 1 banana = ` 300 ÷ 12 = ` 25
\ The cost of 14 bananas = ` 25 × 14 = ` 350
So, the cost of 14 bananas is ` 350

$$\begin{array}{r} 25 \\ 12\overline{)300} \\ -\,24 \\ \hline 60 \\ -\,60 \\ \hline 0 \end{array}$$

4. The cost of 5 litres of juice = ` 270
\ The cost of 1 litre of juice = ` 270 ÷ 5 = ` 54
\ The cost of 9 litres of juice = ` 54 × 9 = ` 486
So, the cost of 9 litres of juice is ` **486**.

$$\begin{array}{r} 54 \\ 5\overline{)270} \\ -\,25 \\ \hline 20 \\ -\,20 \\ \hline 0 \end{array}$$

5. The cost of 12 m ribbon = ` 48
\ The cost of 1 m ribbon = ` 48 ÷ 12 = ` 4
\ The cost of 11 m ribbon = ` 4 × 11 = ` 44
So, the cost of 11 m ribbon is ` **44**.

$$\begin{array}{r} 4 \\ 12\overline{)48} \\ -\,48 \\ \hline 0 \end{array}$$

6. The cost of 5 purse = ` 2950
\ The cost of 1 purse = ` 2950 ÷ 5 = ` 590
\ The cost of 9 purses = ` 590 × 9 = ` 5310
So, the cost of 9 purses is ` **5310**.

$$\begin{array}{r} 590 \\ 5\overline{)2950} \\ -\,25 \\ \hline 45 \\ -\,45 \\ \hline 00 \\ -\,0 \\ \hline 0 \end{array}$$

7. 2 weeks = 14 days
Anant can make in 3 days = 57 baskets
\ Anant can make in 1 day = 57 ÷ 3 = 19 baskets
\ Anant can make in 14 days = 19 × 14 = 266 baskets
So, Anant can make 266 baskets in 2 weeks

$$\begin{array}{r} 19 \\ 3\overline{)57} \\ -3 \\ \hline 27 \\ -27 \\ \hline 0 \end{array}$$

8. Selling price of 48 kg mangoes = ` 768
\ Selling price of 1 kg mango = ` 768 ÷ 48 = ` 16
\ Selling price of 4 kg mangoes = ` 16 × 4 = ` 64
So, fruit vendor sold 4 kg mangoes at ` 64.

$$\begin{array}{r} 16 \\ 48\overline{)768} \\ -48 \\ \hline 288 \\ -288 \\ \hline 0 \end{array}$$

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. b.

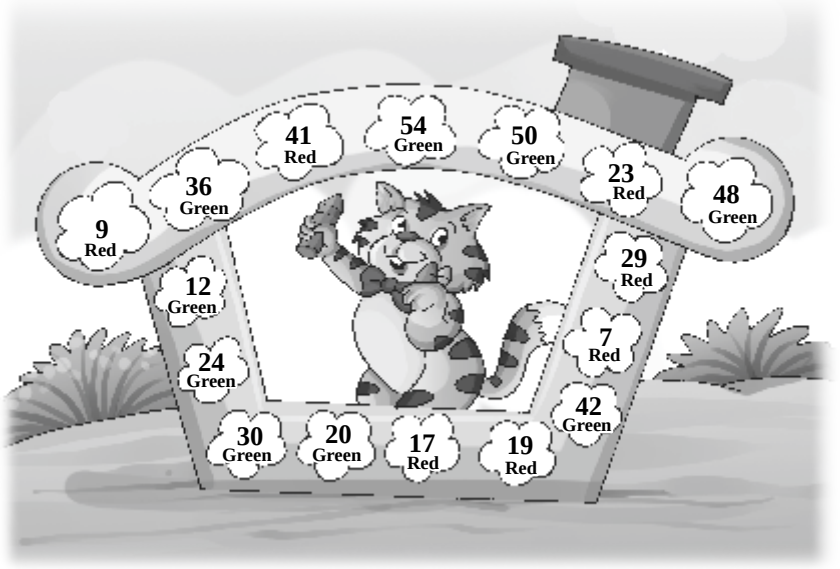
Factors and Multiples

6

Let's Review

Colour the even numbers green and odd numbers red.

Ans.



Think And Do

1. Tick (3) the multiples of 2.
3 ○ 4 3 7 ○ 6 3 10 3 12 3 13 ○

2. Tick (3) the multiples of 7.
7 3 10 ○ 12 ○ 21 3 26 ○ 28 3 35 3

3. Write 'T' for true or 'F' for false in .

1. 27 is a multiple of 4. F 2. 35 is multiple of 5. T

Exercise 6.1

Exercise 6.1

1. Find the first five multiples of the following :

Ans. a. 5, **5**, **10**, **15**, **20**, **25**
b. 10, **10**, **20**, **30**, **40**, **50**
c. 8, **8**, **16**, **24**, **32**, **40**
d. 11, **11**, **22**, **33**, **44**, **55**
e. 14, **14**, **28**, **42**, **56**, **70**

2. Write the following multiples :

Ans. a. 36 b. 28 c. 72 d. 65
e. 77 f. 90

3. Write as directed below :

Ans. a. 7, 14, 21, 28 b. 20, 40, 60, 80 c. 81, 90
d. 42, 48, 54 e. 2, 4, 6, 8, 10

4. List the first 10 multiples of the following numbers. Find the common multiples and write the LCM also :

Ans. a. First ten multiples
2 fi 2, 4, (6), 8, 10, (12), 14, 16, (18), 20.
3 fi 3, (6), 9, (12), 15, (18), 21, 24, 27, 30.
Common multiples = **6, 12, 18**.
LCM = 6

b. 4 and 5
First ten multiples
4 fi 4, 8, 12, 16, (20), 24, 28, 32, 36, (40).
5 fi 5, 10, 15, (20), 25, 30, 35, (40), 45, 50.
Common multiples = **20, 40**.
LCM = 20

c. 8 and 10
First ten multiples
8 fi 8, 16, 24, 32, (40), 48, 56, 64, 72, (80).
10 fi 10, 20, 30, (40), 50, 60, 70, (80), 90, 100.
Common multiples = **40, 80**.
LCM = 40

d. 9 and 12
First ten multiples
9 fi 9, 18, 27, (36), 45, 54, 63, (72), 81, 90.
12 fi 12, 24, (36), 48, 60, (72), 84, 96, 108, 120.
Common multiples = **36, 72**.
LCM = **36**

e. 2 and 6
First ten multiples
2 fi 2, 4, (6), 8, 10, (12), 14, 16, (18), 20.
6 fi (6), (12), (18), 24, 30, 36, 42, 48, 54, 60.

Common multiples = **6, 12, 18**
LCM = **6**

f. 5 and 10
First ten multiples
5 fi 5, 10, 15, 20, 25, 30, 35, 40, 45, 50.
10 fi 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
Common multiples = 10, 20, 30, 40, 50.
LCM = **10**

g. 2, 3 and 6
First ten multiples
2 fi 2, 4, 6, 8, 10, 12, 14, 16, 18, 20.
3 fi 3, 6, 9, 12, 15, 18, 21, 24, 27, 30.
6 fi 6, 12, 18, 24, 30, 36, 42, 48, 54, 60.
Common multiples = **6, 12, 18**
LCM = **6**

h. 4, 6 and 12
First ten multiples
4 fi 4, 8, 12, 16, 20, 24, 28, 32, 36, 40.
6 fi 6, 12, 18, 24, 30, 36, 42, 48, 54, 60.
12 fi 12, 24, 36, 48, 60, 72, 84, 96, 108, 120.
Common multiples = **12, 24, 36**
LCM = **12**

Higher Order Thinking skills

Ans. LCM of 2 and 5 = 10
Next 5 common multiples = 20, 30, 40, 50, 60.

Exercise 6.2

1. Find factors of the following using multiplication :

Ans. a. $1 \times 16 = 16$
$2 \times 8 = 16$
$4 \times 4 = 16$
Thus, factors of 16 are 1, 2, 4, 8 and 16.

b. $1 \times 14 = 14$
$2 \times 7 = 14$
Thus, factors of 14 are 1, 2, 7 and 14.

c. $1 \times 54 = 54$
$2 \times 27 = 54$
$3 \times 18 = 54$
$6 \times 9 = 54$
Thus, factors of 54 are = 1, 2, 3, 6, 9, 18, 27 and 54.

d. $1 \times 25 = 25$
$5 \times 5 = 25$
Thus, factors of 25 are 1, 5, and 25.

e. 1×12
$2 \times 6 = 12$
$3 \times 4 = 12$
Thus, factors of 12 are 1, 2, 3, 4, 6 and 12.

2. Find factors of the following using division.

Ans. a. $39 \div 1 = 39$
$39 \div 3 = 13$
$39 \div 13 = 3$
$39 \div 39 = 1$
Thus, factors of 39 are, 1, 3, 13 and 39.

b. $18 \div 1 = 18$ $\quad$ $18 \div 6 = 3$
$18 \div 2 = 9$ $\quad$ $18 \div 9 = 2$
$18 \div 3 = 6$ $\quad$ $18 \div 18 = 1$
Thus, factors of 18 are 1, 2, 3, 6 and 9 and 18.

c. $35 \div 1 = 35$
$35 \div 5 = 7$
$35 \div 7 = 5$
$35 \div 35 = 1$
Thus, factors of 35 are 1, 5, 7 and 35.

d. $56 \div 1 = 56$ $\quad$ $56 \div 8 = 7$
$56 \div 2 = 28$ $\quad$ $56 \div 14 = 4$
$56 \div 4 = 14$ $\quad$ $56 \div 28 = 2$
$56 \div 7 = 8$ $\quad$ $56 \div 56 = 1$
Thus, factors of 56 are 1, 2, 4, 7, 8, 14, 28 and 56.

e. 42
$42 \div 1 = 42$ $\quad$ $42 \div 7 = 6$
$42 \div 2 = 21$ $\quad$ $42 \div 14 = 3$
$42 \div 3 = 14$ $\quad$ $42 \div 21 = 2$
$42 \div 6 = 7$ $\quad$ $42 \div 41 = 1$
Thus, factors of 42 are 1, 2, 3, 6, 7, 14, 21 and 42.

3. Answer the following.

Ans. a.
$$\begin{array}{r} 4 \\ 12\overline{)48} \\ -48 \\ \hline 0 \end{array}$$
\ 48 is exactly divisible by 12
\ 12 is a factor of 48.

b.
$$\begin{array}{r} 8 \\ 7\overline{)56} \\ -56 \\ \hline 0 \end{array}$$
56 is exactly divisible by 7.
So, 7 is a factor of 56.

c.
$$\begin{array}{r} 7 \\ 6\overline{)42} \\ -42 \\ \hline 0 \end{array}$$
42 is exactly divisible by 6.
So, 6 is a factor of 42.

d.
$$\begin{array}{r} 4 \\ 8\overline{)35} \\ -32 \\ \hline 3 \end{array}$$
35 is not exactly divisible by 8.
So, 8 is not a factor of 35.

4. Write all the factors of the numbers in each pair. Then find the common factors.

Ans. a. Factors of 22 : 1, 2, 11, 22
Factors of 4 : 1, 2, 4
Common factor of 22 and 4 are **1, 2**.

b. Factors of 21 : 1, 3, 7, 21
Factors of 14 : 1, 2, 7, 14
Common factor of 21 and 14 are **1, 7**.

c. Factors of 6 : 1, 2, 3, 6
Factors of 16 : 1, 2, 4, 8, 16
Common factor of 6 and 16 are **1, 2**.

d. Factors of 20 : 1, 2, 4, 5, 10, 20.
Factors of 18 : 1, 2, 3, 6, 9, 18.
Common factor of 20 and 18 are **1, 2**.

e. Factors of 13 : 1, 13.
Factors of 17 : 1, 17
Common factor of 13 and 17 is **1**.

f. Factors of 30 : 1, 2, 3, 5, 6, 10, 15, 30.
Factors of 45 : 1, 3, 5, 9, 15, 45.
Common factor of 30 and 45 are **1, 3, 5, 15**.

g. Factors of 10 : 1, 2, 5, 10.
Factors of 25 : 1, 5, 25
Common factor of 10 and 25 are **1, 5**.

h. Factors of 27 : 1, 3, 9, 27
Factors of 24 : 1, 2, 3, 4, 6, 8, 12, 24.
Common factor of 27 and 24 are **1, 3**.

5. Find the HCF of the following :

Ans. a. 4 and 6
Factors of 4 = 1, 2, 4
Factors of 6 = 1, 2, 3, 6
Common factors = 1, 2
HCF = 2

b. 9 and 15
Factors of 9 = 1, 3, 9.
Factors of 15 = 1, 3, 5, 15.
Common factors = 1, 3.
HCF = 3

c. 30 and 40
Factors of 30 = 1, 2, 3, 5, 6, 10, 15, 30.
Factors of 40 = 1, 2, 4, 5, 8, 10, 20, 40.
Common factors = 1, 2, 5, 10.
HCF = 10

d. 16 and 20
Factors of 16 = 1, 2, 4, 8, 16.
Factors of 20 = 1, 2, 4, 5, 10, 20.
Common factors = 1, 2, 4.
HCF = 4

e. 6, 12 and 24
Factors of 6 = 1, 2, 3, 6.

Factors of 12 = 1, 2, 3, 4, 6, 12.
Factors of 24 = 1, 2, 3, 4, 6, 8, 12, 24.
Common factors = 1, 2, 3, 6.
HCF = 6

f. 25, 45 and 50
Factors of 25 = 1, 5, 25
Factors of 45 = 1, 3, 5, 9, 15, 45.
Factors of 50 = 1, 2, 5, 10, 25, 50.
Common factors = 1, 5.
HCF = 5

6. Say whether the following are True or False.

Ans. a. True b. False c. True d. False

Exercise 6.3

1. Colour the square with even numbers green and with odd numbers red.

Ans. Even number : 724, 910, 84, 68, 20, 4, 92, 176, 216, 16, 10 and 630.
Odd numbers : 683, 49, 65, 3, 29, 285, 981, 347, 489, 701 and 999.

2. Write the following :

Ans. a. 2 b. 999 c. 1 d. 998

3. Check whether the number is prime or composite by listing its factors :

Ans. a. 15
Factors of 15 = 1, 3, 5, 15.
So, 15 is a composite number.

b. 5
Factors of 5 = 1, 5.
So, 5 is a prime number.

c. 52
Factors of 52 = 1, 2, 4, 13, 26, 52.
So, 52 is a prime number.

d. 60
Factors of 60 = 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60.
So, 60 is a prime number.

e. 67
Factors of 67 = 1, 67.
So, 67 is a prime number.

f. 89
Factors of 89 = 1, 89.
So, 89 is a prime number.

g. 27
Factors of 27 = 1, 3, 9, 27.
So, 27 is a composite number.

h. 31
Factors of 31 = 1, 31.
So, 31 is a prime number.

i. 39
Factors of 39 = 1, 3, 13, 39.
So, 39 is a composite number.

j. 99
Factors of 99 = 1, 3, 9, 11, 33, 99.
So, 99 is a composite number.

k. 95
Factors of 95 = 1, 5, 19, 95.
So, 95 is a composite number.

l. 12
Factors of 12 = 1, 2, 3, 4, 6, 12.
So, 12 is a composite number.

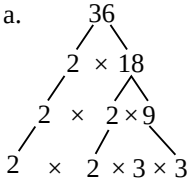
4. Fill in the blanks :

Ans. a. The smallest prime number is **2**.
b. The smallest composite number is **4**.
c. There are **four** prime numbers between 1 and 10.
d. **2** is the only even prime number.
e. Composite numbers have **three** or more factors.

Exercise 6.4

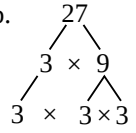
1. Find prime factors of given numbers.

Ans. a.



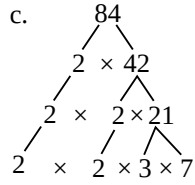
Prime factors of
36 = 2 × 2 × 3 × 3

b.



Prime factors of
27 = 3 × 3 × 3.

c.

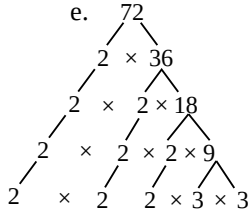


Prime factors of
84 = 2 × 2 × 3 × 7

d.

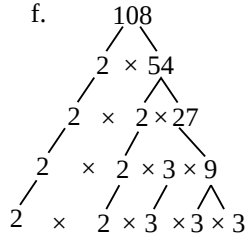
Prime factors of
85 = 5 × 17.

e.



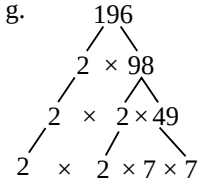
Prime factors of
72 = 2 × 2 × 2 × 3 × 3

f.



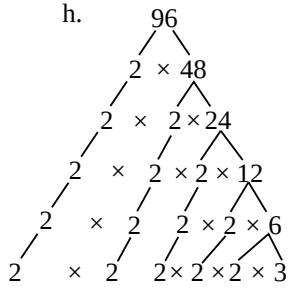
Prime factors of
108 = 2 × 2 × 3 × 3 × 3.

g.



Prime factors of
196 = 2 × 2 × 7 × 7.

h.



Prime factors of 96 = 2 × 2 × 2 × 2 × 2 × 3

2. Determine the prime factorization of the following numbers by division method :

Ans. a.

2	30
3	15
5	5
	1

Prime factors of $30 = 2 \times 3 \times 5$

b.

2	54
3	27
3	9
3	3
	1

Prime factors of $54 = 2 \times 3 \times 3 \times 3$

c.

5	75
5	15
3	3
	1

Prime factors of $75 = 5 \times 5 \times 3$

d.

2	112
2	56
2	28
2	14
7	7
	1

Prime factors of $112 = 2 \times 2 \times 2 \times 2 \times 7$

e.

2	136
2	68
2	34
17	17
	1

Prime factors of $136 = 2 \times 2 \times 2 \times 17$

f.

2	172
2	86
4	43
	1

Prime factors of $172 = 2 \times 2 \times 43$

g.

2	100
2	50
5	25
5	5
	1

Prime factors of $100 = 2 \times 2 \times 5 \times 5$

h.

5	125
5	25
5	5
	1

Prime factors of $125 = 5 \times 5 \times 5$

Exercise 6.5

1. In each column put a (3) if the number at left is divisible by the number at the top of the column. Otherwise pet (7).

Ans.

	Numbers	2	3	4	5	10
a.	218	3	7	7	7	7
b.	240	3	3	3	3	3
c.	2586	3	3	7	7	7
d.	3153	7	3	7	7	7
e.	98664	3	3	3	7	7

2. Fill one smallest digit in each of the boxes to make the number divisible by 9.

Ans. a. 8 b. 2 c. 0 d. 0

MULTIPLE CHOICE QUESTIONS

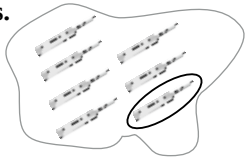
Tick (3) the correct choice :

Ans. 1. c. 2. a. 3. b. 4. a.

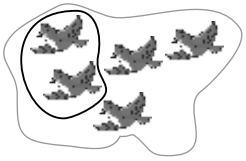
Let's Review

Circle the objects to show the given fractions.

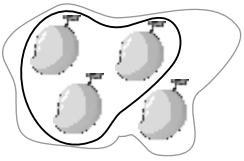
Ans.



$\frac{1}{7}$



$\frac{2}{5}$



$\frac{3}{4}$

Think And Do

Solve the riddles given below.

Ans. 1. $\frac{1}{7}$ 2. $\frac{1}{30}$ 3. $\frac{1}{12}$ 4. $\frac{1}{12}$ 5. $\frac{1}{60}$

Exercise 7.1

1. Complete the following :

Ans. a. $\frac{8}{9}=\frac{24}{27}=\frac{56}{63}=\frac{72}{81}$

b. $\frac{11}{50}=\frac{44}{200}=\frac{330}{1500}=\frac{88}{400}$

c. $\frac{7}{11}=\frac{14}{22}=\frac{35}{55}=\frac{56}{88}$

d. $\frac{1}{5}=\frac{2}{10}=\frac{3}{15}=\frac{9}{45}$

e. $\frac{6}{17}=\frac{12}{34}=\frac{30}{85}=\frac{42}{119}$

f. $\frac{1}{6}=\frac{2}{12}=\frac{7}{42}=\frac{11}{66}$

2. Write the first three equivalent fraction of the following :

Ans. a. First three equivalent fractions of

$\frac{4}{11}=\frac{8}{22}, \frac{12}{33}, \frac{16}{44}$

b. First three equivalent fractions of

$\frac{1}{9}=\frac{2}{18}, \frac{3}{27}, \frac{4}{36}$

c. First three equivalent fractions of

$\frac{5}{6}=\frac{10}{12}, \frac{15}{18}, \frac{20}{24}$

d. First three equivalent fractions of

$\frac{7}{10}=\frac{14}{20}, \frac{21}{30}, \frac{28}{40}$

e. First three equivalent fractions of

$\frac{3}{5}=\frac{6}{10}, \frac{9}{15}, \frac{12}{20}$

f. First three equivalent fractions of

$\frac{2}{7}=\frac{4}{14}, \frac{6}{21}, \frac{8}{28}$

3. Write an equivalent fraction of $\frac{4}{5}$ with :

Ans. a. $\frac{4}{5} = \frac{4 \times 3}{5 \times 3} = \frac{12}{15}$ b. $\frac{4}{5} = \frac{4 \times 4}{5 \times 4} = \frac{16}{20}$

c. $\frac{4}{5} = \frac{4 \times 9}{5 \times 9} = \frac{36}{45}$

4. Tick (3) the pair of fractions that are equivalent :

Ans. a. 3 b. 3 e. 3

Exercise 7.2

1. Fill in the Equivalent fractions :

Ans. a. $\frac{15 \div 5}{10 \div 5} = \frac{3}{2}$ b. $\frac{12 \div 4}{16 \div 4} = \frac{3}{4}$ c. $\frac{8 \div 8}{16 \div 8} = \frac{1}{2}$

d. $\frac{6 \div 2}{10 \div 2} = \frac{3}{5}$ e. $\frac{10 \div 2}{16 \div 2} = \frac{5}{8}$ f. $\frac{7 \div 7}{21 \div 7} = \frac{1}{3}$

2. Reduce the following fractions to the lowest terms.

Ans. a. Common factor of 30 and 45 = 15

$\therefore \frac{30}{45} = \frac{30 \div 15}{45 \div 15} = \frac{2}{3}$ (lowest term)

b. Common factor of 49 and 63 = 7

$\therefore \frac{49}{63} = \frac{49 \div 7}{63 \div 7} = \frac{7}{9}$ (lowest term)

c. Common factor of 75 and 80 = 5

$\therefore \frac{75}{80} = \frac{75 \div 5}{80 \div 5} = \frac{15}{16}$ (lowest term)

d. Common factor of 25 and 40 = 5

$\therefore \frac{25}{40} = \frac{25 \div 5}{40 \div 5} = \frac{5}{8}$ (lowest term)

e Common factor of 36 and 81 = 9

$\therefore \frac{36}{81} = \frac{36 \div 9}{81 \div 9} = \frac{4}{9}$ (lowest term)

f. Common factor of 16 and 18 = 2

$\therefore \frac{16}{18} = \frac{16 \div 2}{18 \div 2} = \frac{8}{9}$ (lowest term)

g. Common factor of 85 and 100 = 5

$\therefore \frac{85}{100} = \frac{85 \div 5}{100 \div 5} = \frac{17}{20}$ (lowest term)

h. Common factor of 24 and 32 = 8

$\therefore \frac{24}{32} = \frac{24 \div 8}{32 \div 8} = \frac{3}{4}$ (lowest term)

i. Common factor of 22 and 121 = 11

$\therefore \frac{22}{121} = \frac{22 \div 11}{121 \div 11} = \frac{2}{11}$ (lowest term)

j. Common factor of 42 and 48 = 6

$\therefore \frac{42}{48} = \frac{42 \div 6}{48 \div 6} = \frac{7}{8}$ (lowest term)

k. Common factor of 6 and 24 = 6

$\therefore \frac{6}{24} = \frac{6 \div 6}{24 \div 6} = \frac{1}{4}$ (lowest term)

l. Common factor of 15 and 30 = 15

$\therefore \frac{15}{30} = \frac{15 \div 15}{30 \div 15} = \frac{1}{2}$ (lowest term)

Exercise 7.3

1. Classify the fractions as proper or improper fractions.

Ans. a. $\frac{6}{9}$ proper fraction
b. $\frac{1}{9}$ proper fraction
c. $\frac{15}{4}$ Improper fraction
d. $\frac{6}{7}$ proper fraction
e. $\frac{5}{13}$ proper fraction
f. $\frac{4}{5}$ proper fraction
g. $\frac{48}{49}$ proper fraction
h. $\frac{17}{5}$ Improper fraction
i. $\frac{8}{5}$ Improper fraction
j. $\frac{18}{13}$ Improper fraction

2. Convert the following improper fractions into mixed fractions.

Ans. a. $\frac{80}{7} = 11\frac{3}{7}$

$$7\overline{)80}\ 11,\quad -7,\quad 10,\quad -7,\quad 3$$

b. $\frac{44}{5} = 8\frac{4}{5}$
c. $\frac{15}{7} = 2\frac{1}{7}$
d. $\frac{35}{6} = 5\frac{5}{6}$
e. $\frac{18}{4} = 4\frac{2}{4}$
f. $\frac{25}{6} = 4\frac{1}{6}$
g. $\frac{8}{3} = 2\frac{2}{3}$
h. $\frac{17}{2} = 8\frac{1}{2}$
i. $\frac{92}{11} = 8\frac{4}{11}$
j. $\frac{54}{5} = 10\frac{4}{5}$

3. Convert the following mixed fractions into improper fractions.

Ans. a. $4\frac{1}{2} = \frac{4 \times 2 + 1}{2} = \frac{9}{2}$
b. $3\frac{3}{5} = \frac{3 \times 5 + 3}{5} = \frac{18}{5}$
c. $3\frac{3}{7} = \frac{3 \times 7 + 3}{7} = \frac{24}{7}$
d. $6\frac{5}{8} = \frac{8 \times 6 + 5}{8} = \frac{53}{8}$
e. $11\frac{2}{3} = \frac{11 \times 3 + 2}{3} = \frac{35}{3}$
f. $4\frac{7}{9} = \frac{4 \times 9 + 7}{9} = \frac{43}{9}$
g. $8\frac{3}{4} = \frac{8 \times 4 + 3}{4} = \frac{35}{4}$
h. $2\frac{2}{5} = \frac{2 \times 5 + 2}{5} = \frac{12}{5}$
i. $2\frac{2}{7} = \frac{2 \times 7 + 2}{7} = \frac{16}{7}$
j. $2\frac{1}{9} = \frac{2 \times 9 + 1}{9} = \frac{19}{9}$

Exercise 7.4

1. Put the correct sign <, > or = in the box.

Ans. a. < b. < c. < d. >
e. < f. < g. > h. <

2. Tick (3) the greatest and cross (7) the smallest fraction in the following.

Ans. a. $\frac{5}{3}, \frac{9}{3}, \frac{7}{3}, \frac{2}{3}$ b. $\frac{5}{9}, \frac{7}{9}, \frac{3}{7}, \frac{12}{7}$ c. $2\frac{1}{7}, 3\frac{2}{7}, 4\frac{1}{7}, 1\frac{2}{7}$

d. $9\frac{2}{3}, 7\frac{5}{6}, 4\frac{1}{3}, 3\frac{7}{8}$ e. $4\frac{1}{3}, \frac{15}{3}, 3\frac{1}{3}, 3\frac{7}{8}$ f. $3\frac{1}{4}, 8\frac{3}{4}, 3\frac{4}{5}, 6\frac{2}{5}$

3. Arrange in ascending order.

Ans. a. $\frac{7}{11}, \frac{2}{11}, \frac{5}{11}, \frac{4}{11}$, Ascending order $\frac{2}{11} < \frac{4}{11} < \frac{5}{11} < \frac{7}{11}$

b. $\frac{3}{9}, \frac{8}{9}, \frac{5}{7}, \frac{9}{7} = \frac{3 \times 7}{9 \times 7}, \frac{8 \times 7}{9 \times 7}, \frac{5 \times 9}{7 \times 9}, \frac{9 \times 9}{7 \times 9} = \frac{21}{63}, \frac{56}{63}, \frac{45}{63}, \frac{81}{63}$

In ascending order, $\frac{21}{63} < \frac{45}{63} < \frac{56}{63} < \frac{81}{63} = \frac{3}{9} < \frac{5}{7} < \frac{8}{9} < \frac{9}{7}$

c. $6\frac{2}{13}, 3\frac{1}{13}, 5\frac{5}{13}, 2\frac{4}{13}$

In ascending order, $2\frac{4}{13} < 3\frac{1}{13} < 5\frac{5}{13} < 6\frac{2}{13}$

$= 2\frac{4}{13} < 3\frac{1}{13} < 5\frac{5}{13} < 6\frac{2}{13}$

d. $2\frac{6}{15}, 4\frac{11}{15}, 7\frac{12}{5}, 7\frac{3}{5} = \frac{36}{15} < \frac{71}{15} < \frac{47}{5} < \frac{38}{5}$

$\frac{36}{15}, \frac{71}{15}, \frac{47 \times 3}{5 \times 3}, \frac{38 \times 3}{5 \times 3} = \frac{30}{15} < \frac{71}{15} < \frac{141}{15} < \frac{114}{15}$

In ascending order $= \frac{36}{15} < \frac{71}{15} < \frac{114}{15} < \frac{141}{15}$

$= 2\frac{6}{15} < 4\frac{11}{15} < 7\frac{3}{5} < 7\frac{12}{5}$

e. $7\frac{8}{6}, 7\frac{15}{19}, 7\frac{13}{19}, 8\frac{5}{6} = \frac{50}{6} < \frac{148}{19} < \frac{146}{19} < \frac{53}{6}$

$= \frac{50 \times 19}{6 \times 19}, \frac{148 \times 6}{19 \times 6}, \frac{146 \times 6}{19 \times 6}, \frac{53 \times 19}{6 \times 19}$

$\frac{950}{114}, \frac{888}{114}, \frac{876}{114}, \frac{1007}{114}$

In ascending order $= \frac{876}{114} < \frac{888}{114} < \frac{950}{114} < \frac{1007}{114}$

$= 7\frac{13}{19} < 7\frac{15}{19} < 7\frac{8}{6} < 8\frac{5}{6}$

f. $7\frac{3}{11}, \frac{8}{13}, 2\frac{5}{13}, \frac{9}{11} = \frac{80}{11}, \frac{8}{13}, \frac{31}{13}, \frac{9}{11}$

$= \frac{80 \times 13}{11 \times 13}, \frac{8 \times 11}{13 \times 11}, \frac{31 \times 11}{13 \times 11}, \frac{9 \times 13}{11 \times 13} = \frac{1040}{143}, \frac{88}{143}, \frac{341}{143}, \frac{117}{143}$

In ascending order $= \frac{88}{143} < \frac{117}{143} < \frac{341}{143} < \frac{1040}{143}$

$= \frac{8}{13} < \frac{9}{11} < 2\frac{5}{13} < 7\frac{3}{11}$

4. Arrange in descending order.

Ans. a. $\frac{8}{17}, \frac{12}{17}, \frac{11}{17}, \frac{6}{17}$

In descending order, $\frac{12}{17} < \frac{11}{17} < \frac{8}{17} < \frac{6}{17}$

b. $\frac{3}{11}, \frac{4}{9}, \frac{1}{9}, \frac{2}{11} = \frac{3 \times 9}{11 \times 9}, \frac{4 \times 11}{9 \times 11}, \frac{1 \times 11}{9 \times 11}, \frac{2 \times 8}{11 \times 9}$

$= \frac{27}{99}, \frac{44}{99}, \frac{11}{99}, \frac{18}{99}$

In descending order = $\frac{4}{9} > \frac{3}{11} > \frac{2}{11} > \frac{1}{9}$

c. $4\frac{3}{11}, \frac{29}{6}, 3\frac{5}{6}, \frac{9}{11} = \frac{47}{11}, \frac{29}{6}, \frac{23}{6}, \frac{9}{11}$

$= \frac{47 \times 6}{11 \times 6}, \frac{29 \times 11}{6 \times 11}, \frac{23 \times 11}{6 \times 11}, \frac{9 \times 6}{11 \times 6} = \frac{282}{66}, \frac{319}{66}, \frac{256}{66}, \frac{54}{66}$

In descending order =

$= \frac{29}{6} < 4\frac{3}{11} < 3\frac{5}{6} < \frac{9}{11}$

d. $2\frac{4}{9}, 5\frac{7}{10}, 10\frac{7}{9}, 6\frac{9}{10} = \frac{22}{9}, <\frac{57}{10}, \frac{97}{9}, \frac{69}{10}$

$= \frac{22 \times 10}{9 \times 10}, \frac{57 \times 9}{10 \times 9}, \frac{97 \times 10}{9 \times 10}, \frac{69 \times 9}{10 \times 9} = \frac{220}{90}, \frac{513}{90}, \frac{970}{90}, \frac{621}{90}$

In descending order = $\frac{970}{90} > \frac{621}{90} > \frac{513}{90} > \frac{220}{90}$

$= 10\frac{7}{9} > 6\frac{9}{10} > 5\frac{7}{10} > 2\frac{4}{9}$

e. $3\frac{7}{12}, 7\frac{2}{12}, 5\frac{5}{12}, 4\frac{11}{12} = \frac{43}{12}, \frac{86}{12}, \frac{65}{12}, \frac{59}{12}$

In descending order = $\frac{86}{12}, > \frac{65}{12}, > \frac{59}{12}, > \frac{43}{12}$

$= 7\frac{2}{12} > 5\frac{5}{12} > 4\frac{11}{12} > 3\frac{7}{12}$

f. $9\frac{5}{7}, 9\frac{7}{11}, 9\frac{10}{7}, 9\frac{8}{7} = \frac{68}{7}, \frac{10}{11}, \frac{73}{7}, \frac{71}{7}$

$= \frac{68 \times 11}{7 \times 11} > \frac{106 \times 7}{11 \times 7} > \frac{73 \times 11}{7 \times 11} > \frac{71 \times 11}{7 \times 11}$

$= \frac{748}{77}, \frac{742}{77}, \frac{803}{77}, \frac{781}{77}$

In descending order $\frac{803}{77} > \frac{781}{77} > \frac{748}{77} > \frac{742}{77}$

$= 9\frac{10}{7} > 9\frac{8}{7} > 9\frac{5}{7} > 9\frac{7}{11}$

Exercise 7.5

1. Find the sum.

Ans. a. $\frac{4}{11}+\frac{5}{11}=\frac{4+5}{11}=\frac{9}{11}$

b. $\frac{5}{9}+\frac{3}{9}=\frac{5+3}{9}=\frac{8}{9}$

c. $\frac{1}{12}+\frac{7}{12}=\frac{1+7}{12}=\frac{8}{12}$

d. $\frac{5}{21}+\frac{10}{21}=\frac{5+10}{21}=\frac{15}{21}$

e. $\frac{13}{19}+\frac{5}{19}=\frac{13+5}{12}=\frac{18}{19}$

f. $\frac{3}{10}+\frac{4}{10}=\frac{3+4}{10}=\frac{7}{10}$

g. $\frac{1}{17}+\frac{3}{17}=\frac{1+3}{17}=\frac{4}{17}$

h. $\frac{7}{16}+\frac{5}{16}=\frac{7+5}{16}=\frac{12}{16}$

i. $\frac{1}{10}+\frac{3}{10}+\frac{2}{10}=\frac{1+3+2}{10}=\frac{6}{10}$

j. $\frac{7}{24}+\frac{5}{24}+\frac{6}{24}=\frac{7+5+6}{24}=\frac{18}{24}$

k. $\frac{5}{14}+\frac{7}{14}+\frac{1}{14}=\frac{5+7+1}{14}=\frac{13}{14}$

l. $\frac{3}{7}+\frac{6}{7}+\frac{2}{7}=\frac{3+6+2}{7}=\frac{11}{7}$

2. Add the following :

Ans. a. LCM of 9 and 8 = 72

$\therefore \frac{1}{9}+\frac{1}{8}=\frac{1\times 8}{9\times 8}+\frac{1\times 9}{8\times 9}=\frac{8}{72}+\frac{9}{72}=\frac{8+9}{72}=\frac{17}{72}$

b. LCM of 3 and 6 = 6

$\therefore \frac{1}{3}+\frac{1}{6}=\frac{1\times 2}{3\times 2}+\frac{1\times 1}{6\times 1}=\frac{2}{6}+\frac{1}{6}=\frac{2+1}{6}=\frac{3}{6}=\frac{3\div 3}{6\div 3}=\frac{1}{2}$

c. LCM of 4 and 9 = 36

$\therefore \frac{1}{4}+\frac{4}{9}=\frac{1\times 9}{4\times 9}+\frac{4\times 4}{9\times 4}=\frac{9}{36}+\frac{16}{36}=\frac{9\times 16}{36}=\frac{25}{36}$

d. LCM of 2 and 5 = 10

$\therefore \frac{4}{5}+\frac{1}{2}=\frac{4\times 2}{5\times 2}+\frac{1\times 5}{2\times 5}=\frac{8}{10}+\frac{5}{10}=\frac{8+5}{10}=\frac{13}{10}=1\frac{3}{10}$

e. $2\frac{1}{7}+7\frac{1}{2}=\frac{2\times 7+1}{7}+\frac{7\times 2+1}{2}=\frac{15}{7}+\frac{15}{2}$ LCM of 7 and 2 = 14

$\therefore \frac{15\times 2}{7\times 2}+\frac{15\times 7}{2\times 7}=\frac{30}{14}+\frac{105}{14}=\frac{30+105}{14}=\frac{135}{14}=9\frac{9}{14}$

f. $1\frac{2}{3}+6\frac{1}{2}=\frac{5}{3}+\frac{13}{2}$ LCM of 3 and 2 = 6

$\therefore \frac{5\times 2}{3\times 2}+\frac{13\times 3}{2\times 3}=\frac{10}{6}+\frac{39}{6}=\frac{10+39}{6}=\frac{49}{6}=8\frac{1}{6}$

g. $4\frac{1}{6}+2\frac{1}{4}=\frac{25}{6}+\frac{4}{9}$ LCM of 6 and 4 = 12

$\therefore \frac{25\times 2}{6\times 2}+\frac{9\times 3}{4\times 3}=\frac{50}{12}+\frac{27}{12}=\frac{50+27}{12}=\frac{72}{12}=6\frac{5}{17}$

h. $4\frac{1}{5}+4\frac{1}{3}=\frac{21}{5}+\frac{13}{3}$ LCM of 5 and 3 = 15

$\therefore \frac{21\times 3}{5\times 3}+\frac{13\times 5}{3\times 5}=\frac{63}{15}+\frac{65}{15}=\frac{63+65}{15}=\frac{128}{15}=8\frac{8}{15}$

Exercise 7.6

1. a. $\frac{3}{11} - \frac{2}{11} = \frac{3-2}{11} = \frac{1}{11}$

b. $\frac{21}{23} - \frac{10}{23} = \frac{21-10}{23} = \frac{11}{28}$

c. $\frac{8}{18} - \frac{3}{18} = \frac{8-3}{18} = \frac{5}{18}$

d. $\frac{5}{17} - \frac{3}{17} = \frac{5-3}{17} = \frac{2}{17}$

e. $\frac{17}{15} - \frac{3}{15} = \frac{17-13}{15} = \frac{4}{15}$

f. $\frac{16}{31} - \frac{12}{31} = \frac{16-12}{31} = \frac{4}{31}$

g. $\frac{11}{14} - \frac{7}{14} = \frac{11-7}{14} = \frac{4}{14}$

h. $\frac{15}{24} - \frac{7}{24} = \frac{15-7}{24} = \frac{8}{24}$

i. $2\frac{5}{4} - \frac{1}{4} = \frac{13}{4} - \frac{1}{4} = \frac{13-1}{4} = \frac{12}{4} = \frac{12 \div 4}{4 \div 4} = \frac{3}{1} = 3$

j. $1\frac{8}{10} - 1\frac{1}{10} = \frac{18}{10} - \frac{11}{10} = \frac{18-11}{10} = \frac{7}{10}$

k. $3\frac{4}{5} - 1\frac{2}{5} = \frac{19}{5} - \frac{7}{5} = \frac{19-7}{5} = \frac{12}{5} = 2\frac{2}{5}$

l. $3\frac{3}{5} - 1\frac{4}{5} = \frac{18}{5} - \frac{9}{5} = \frac{18-9}{5} = \frac{9}{5} = 1\frac{4}{5}$

2. Subtract the following :

Ans. a. LCM of 3 and 7 = 21

$\therefore \frac{1}{3} - \frac{2}{7} = \frac{1 \times 7}{3 \times 7} - \frac{2 \times 3}{7 \times 3} = \frac{7}{21} - \frac{6}{21} = \frac{7-6}{21} = \frac{1}{21}$

b. LCM of 2 and 6 = 6

$\therefore \frac{1}{2} - \frac{1}{6} = \frac{1 \times 3}{2 \times 3} - \frac{1 \times 1}{6 \times 1} = \frac{3}{6} - \frac{1}{6} = \frac{3-1}{6} = \frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{2}$

c. LCM of 3 and 8 = 24

$\therefore \frac{2}{3} - \frac{4}{8} = \frac{2 \times 8}{3 \times 8} - \frac{4 \times 3}{8 \times 3} = \frac{16}{24} - \frac{12}{24} = \frac{16-12}{24} = \frac{4}{24} = \frac{4 \div 4}{24 \div 4} = \frac{1}{6}$

d. LCM of 7 and 4 = 28

$\therefore \frac{5}{7} - \frac{1}{4} = \frac{5 \times 4}{7 \times 4} - \frac{1 \times 7}{4 \times 7} = \frac{20}{28} - \frac{7}{28} = \frac{20-7}{28} = \frac{13}{28}$

e. LCM of 2 and 4 = 4

$\therefore 3\frac{1}{2} - 1\frac{3}{4} = \frac{7}{2} - \frac{7}{4} = \frac{7 \times 2}{2 \times 2} - \frac{7 \times 1}{4 \times 1} = \frac{14}{4} - \frac{7}{4} = \frac{14-7}{4}$

$= \frac{7}{4} = 1\frac{3}{4}$

f. LCM of 3 and 6 = 6

$\therefore 10\frac{1}{3} - 7\frac{4}{6} = \frac{31}{3} - \frac{46}{6} = \frac{31 \times 2}{3 \times 2} - \frac{46 \times 1}{6 \times 1} = \frac{62}{6} - \frac{46}{6}$

$\frac{62-46}{6} = \frac{16}{6} = \frac{16 \div 2}{6 \div 2} = \frac{8}{3} = 2\frac{2}{3}$

g. LCM of 2 and 5 = 10

$\therefore 6\frac{1}{2} - 3\frac{2}{5} = \frac{13}{2} - \frac{17}{5} = \frac{13 \times 5}{2 \times 5} - \frac{17 \times 2}{5 \times 2} = \frac{65}{10} - \frac{34}{10} = \frac{31}{10} = 3\frac{1}{10}$

h. LCM of 2 and 5 = 10

$\therefore \quad 9\frac{1}{2} - 8\frac{3}{5} = \frac{19}{2} - \frac{43}{5} = \frac{19 \times 5}{2 \times 5} - \frac{43 \times 2}{5 \times 2} = \frac{95}{10} - \frac{86}{10} = \frac{95 - 86}{10} = \frac{9}{10}$

Exercise 7.7

1. Time taken to complete English homework = $\frac{1}{5}$ hours

Time taken to complete Mathematics home work = $\frac{3}{5}$ hours

Time taken to complete both home work = $\left(\frac{1}{5} + \frac{3}{5}\right) = \frac{1+3}{5} = \frac{4}{5}$ hours

So, Rishi completed his homework in $\frac{4}{5}$ hours.

2. Sugar was bought by John = $\frac{3}{4}$ kg

Sugar was used = $\frac{1}{4}$ kg

Sugar was left over = $\left(\frac{3}{4} - \frac{1}{4}\right)$ kg = $\frac{3-1}{4}$ kg = $\frac{2}{4}$ kg = $\frac{1}{2}$ kg

So, $\frac{1}{2}$ kg sugar was left over.

3. Money was spent by Neil on fees = $\frac{1}{3}$ of money

Money was spent on book = $\frac{1}{3}$ of money

Total money was spent = $\left(\frac{1}{3} + \frac{1}{3}\right)$ of money = $\frac{1+1}{3} = \frac{2}{3}$ of money

So, Neil spent $\frac{2}{3}$ of his money in all.

4. Length of Karan ribbon = $\frac{2}{5}$ m

Lengh of Kiran's ribbon = $\frac{1}{5}$ m

More Length of Karna's ribbon than Kiran's ribbon

$= \left(\frac{2}{5} - \frac{1}{5}\right)$ m = $\frac{2-1}{5} = \frac{1}{5}$ m.

So, Karan bought $\frac{1}{5}$ m of ribbon more than Kiran.

5. Sakshi had = $2\frac{1}{5}$ kg of rice

She used = $1\frac{3}{5}$ kg of rice

Rice was left = $\left(2\frac{1}{5} - 1\frac{3}{5}\right)$ kg = $\left(\frac{11}{5} - \frac{8}{5}\right)$ kg

$= \left(\frac{11-8}{5}\right)$ kg = $\frac{3}{5}$ kg

So, $\frac{3}{5}$ kg of rice was left.

6. Vinita ate = $\frac{1}{4}$ of the cake

Rihana ate = $\frac{3}{4}$ of the cake

More cake was eaten by Rihana = $\left(\frac{3}{4}-\frac{1}{4}\right)$ of the cake

= $\frac{1}{2}$ of the cake

So, Rihana ate more $\frac{1}{2}$ of the cake than Vinita.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

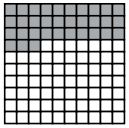
Ans. 1. a. 2. b. 3. c. 4. a.

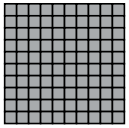
Decimals

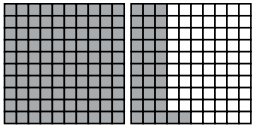
8

Let's Review

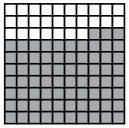
A. Write the decimal fraction for the following :

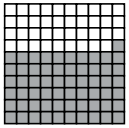
Ans. 1.  0.33

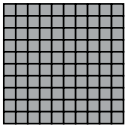
2.  1.00

3.  1.32

B. Shade the squares to represent the given decimal fractions :

Ans. 1.  0.73

2.  0.61

3.  1.0

Exercise 8.1

1. Write in decimals :

Ans.

a. 0.9	b. 0.3	c. 0.6	d. 0.8
e. 1.3	f. 1.6	g. 1.5	h. 1.9
i. 2.7	j. 5.6	k. 6.8	l. 7.5
m. 8.8	n. 7.2	o. 9.7	p. 8.7
q. 17.6	f. 37.5	s. 27.3	t. 38.5

2. Make a place value chart and show the following decimals on it :

Ans.

a. $\frac{3}{10}$	b. $\frac{7}{10}$	c. $\frac{8}{10}$	d. $\frac{4}{10}$
e. $\frac{6}{10}$	f. $\frac{10}{10}$	g. $\frac{1}{10}$	h. $\frac{2}{10}$
i. $\frac{9}{10}$	j. $\frac{5}{10}$	k. $\frac{14}{10}$	l. $\frac{26}{10}$
m. $\frac{47}{10}$	n. $\frac{132}{10}$	o. $\frac{3424}{10}$	

3. Make a place value chart and show the following decimals on it:

Q. Part	$_{100}$ Hundreds	$_{10}$ Tens	$_{1}$ Ones	Tenths $\frac{1}{10}$
a.	2	7	3	0.8 or eight-tenth
b.	1	5	6	0.9 or nine-tenth
c.	3	9	6	0.7 or seven-tenth
d.	1	7	6	0.5 or five-tenth
e.		3	9	0.4 or four-tenth
f.		2	6	0.1 or one-tenth
g.		1	7	0.4 or four-tenth
h.		1	3	0.5 or five-tenth

Exercise 8.2

1. Fill in the equivalent fractions (in decimals) :

Ans. a. 1.17 b. 0.37 c. 7.14 d. 0.21
e. 5.26 f. 0.06 g. 0.04 h. 4.13

2. Write in common fractions :

Ans. a. $6\frac{73}{100}$ b. $4\frac{78}{100}$ c. $3\frac{17}{100}$ d. $1\frac{14}{100}$

e. $\frac{67}{100}$ f. $\frac{11}{100}$ g. $\frac{2}{100}$ h. $\frac{3}{100}$

3. Write in decimals.

Ans. a. 15.123 b. 0.213 c. 7.064 d. 0.025
e. 2.013 f. 0.003 g. 0.007 h. 0.104

4. Write in common fractions.

Ans. a. $93\frac{540}{1000}$ b. $\frac{10}{1000}$ c. $\frac{234}{1000}$ d. $8\frac{1}{1000}$

e. $\frac{56}{1000}$ f. $61\frac{185}{1000}$ g. $\frac{4}{1000}$ h. $\frac{876}{1000}$

Exercise 8.3

1. Write the place and place value of :

Ans. a. 5 in 15.171 Place **Ones** Place Value **5**
b. 7 in 6.710 Place **Tenths** Place Value **0.7**
c. 4 in 5.413 Place **Tenths** Place Value **0.4**
d. 8 in 5.813 Place **Tenths** Place Value **0.8**

2. Fill in the blanks :

Ans. a. **one**-tenths **seven**-hundredths.
b. **two**-tenths **seven**-hundredths **three**-thousandths.
c. **one**-tenths **one**-hundredths **seven**-thousandths.
d. **one**-tenths **three**-hundredths.

3. Fill in the boxes :

Ans. a. $2.673 = 2\frac{6}{\mathbf{10}} + \frac{7}{\mathbf{100}} + \frac{3}{\mathbf{1000}}$ b. $7.321 = 7 + \frac{3}{\mathbf{10}} + \frac{2}{\mathbf{100}} + \frac{1}{\mathbf{1000}}$

c. $9.01 = 9 + \frac{1}{\mathbf{100}}$ d. $6.132 = 6 + \frac{1}{\mathbf{10}} + \frac{3}{\mathbf{100}} + \frac{2}{\mathbf{1000}}$

e. $8.02 = 8 + \frac{2}{100}$ f. $8.145 = 8 + \frac{1}{10} + \frac{4}{100} + \frac{5}{1000}$

4. Write the standard numeral (short form) in decimals :

Ans. a. 7.093 b. 200.247 c. 328.354
d. 13.205 e. 4.007 f. 8.604
g. 5.423

5. Write the place value of 5 in each :

Ans. a. Place value of 5 in 103.805 = 0.005
b. Place value of 5 in 12.579 = 0.5
c. Place value of 5 in 43.578 = 0.5
d. Place value of 5 in 28.35 = 0.05
e. Place value of 5 in 53.274 = 50

6. Write in the expanded form :

Ans. a. $8.005 = 8 + \frac{5}{1000}$ b. $47.08 = 40 + 7 + \frac{8}{100}$
c. $9.27 = 9 + \frac{2}{10} + \frac{7}{100}$ d. $6.403 = 6 + \frac{4}{10} + \frac{3}{1000}$
e. $18.875 = 10 + 8 + \frac{8}{10} + \frac{7}{100} + \frac{5}{1000}$

7. Make a Place value chart and write the following number in it :

Ans.

Q.Part	Hundreds	Tens	Ones	Point	tenths	Hundredths	thousandths
	100	10	1	.	$\frac{1}{10} = 0.1$	$\frac{1}{100} = 0.01$	$\frac{1}{1000} = 0.001$
a.			8	.	0	5	6
b.		6	2	.	2	1	4
c.	2	0	5	.	0	0	8
d.			0	.	8	8	3
e.	1	2	5	.	8	5	1

Exercise 8.4

1. Write correct or incorrect for each of the following :

Ans. a. Correct b. Incorrect c. Correct
d. Incorrect e. Correct f. Incorrect

2. Which are the equivalent decimal fractions?

Ans. a. 0.37 and 0.370 are equivalent decimal fractions.
b. 0.9 and 0.09 are not equivalent decimal fractions.
c. 0.41 and 0.410 are equivalent decimal fractions.
d. 0.9 and 0.900 are equivalent decimal fractions.
e. 0.13 and 0.013 are not equivalent decimal fractions.
f. 0.23 and 0.230 are equivalent decimal fractions.

3. Compare and write < or > for each :

Ans. a. > b. > c. < d. < e. < f. <

4. Which is the smallest fraction?

Ans. a. 5.82 is the smallest fraction among 5.82, 6.92, 6.029, 6.629.

b. 0.389 is the smallest fraction among 0.408, 0.39, 0.389, 0.42.

Exercise 8.5

1. Fill in the blanks :

Ans. a. 0.7 b. 0.8 c. 0.9 d. 0.7

2. Add the following :

Ans. a.
$$\begin{array}{r} 18.08 \\ +\ 15.09 \\ \hline 33.17 \end{array}$$
b.
$$\begin{array}{r} 5.20 \\ +\ 0.68 \\ \hline 5.88 \end{array}$$
c.
$$\begin{array}{r} 0.41 \\ +\ 0.65 \\ \hline 1.06 \end{array}$$
d.
$$\begin{array}{r} 0.74 \\ +\ 0.22 \\ \hline 0.96 \end{array}$$

e.
$$\begin{array}{r} 0.8 \\ +\ 0.1 \\ \hline 0.9 \end{array}$$
f.
$$\begin{array}{r} 0.3 \\ +\ 0.4 \\ \hline 0.7 \end{array}$$
g.
$$\begin{array}{r} 0.2 \\ +\ 0.1 \\ \hline 0.3 \end{array}$$
h.
$$\begin{array}{r} 0.6 \\ +\ 0.1 \\ \hline 0.7 \end{array}$$

3. Subtract the following :

Ans. a.
$$\begin{array}{r} 0.8 \\ -\ 0.4 \\ \hline 0.4 \end{array}$$
b.
$$\begin{array}{r} 44.330 \\ -\ 12.764 \\ \hline 31.566 \end{array}$$
c.
$$\begin{array}{r} 56.820 \\ -\ 19.745 \\ \hline 37.075 \end{array}$$
d.
$$\begin{array}{r} 422.32 \\ -\ 165.17 \\ \hline 257.15 \end{array}$$

e.
$$\begin{array}{r} 2.73 \\ -\ 1.05 \\ \hline 1.68 \end{array}$$
f.
$$\begin{array}{r} 3.41 \\ -\ 2.67 \\ \hline 0.74 \end{array}$$
g.
$$\begin{array}{r} 211.61 \\ -\ 102.29 \\ \hline 109.32 \end{array}$$
h.
$$\begin{array}{r} 3.6 \\ -\ 2.4 \\ \hline 1.2 \end{array}$$

4. Simplify the following :

Ans. a. $0.08 + 0.0067 + 0.005 + 0.038 = 0.1297$

b. $0.587 + 0.247 + 7.852 + 47.805 = 56.491$

c. $22.36 + 8.6 + 39.5 + 45.68 = 116.14$

d. $6.4 + 4.65 + 0.8 + 6.08 = 17.93$

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. a. 3. c. 4. a. 5. a. 6. a. 7. b.

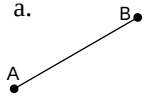
Geometry

9

Let's Review

1. Identify the point, line, line segment and ray :

Ans. a.



Line Segment

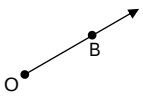
b.

Line

c.

Point

d.



Ray

2. Complete the table :

Ans.

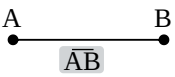
Solids	Name of the solids	Faces	Edges	Vertices
	Cuboid	6	12	8
	Sphere	1	—	—
	Cube	6	12	8
	Cone	2	1	1
	Cylinder	3	2	—

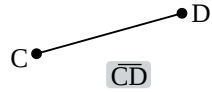
Exercise 9.1

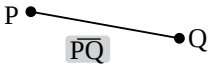
1. Fill in the blanks :

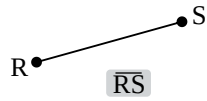
Ans. a. ray b. two c. point d. line segment

2. Join the given points to make line segments. Name the line segments.

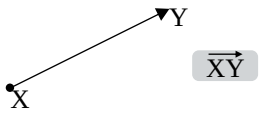
Ans. a. 

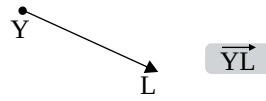
b. 

c. 

d. 

3. Name the following ray.

Ans. a. 

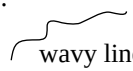
b. 

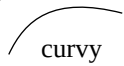
c. 

d. 

4. Observe the pictures carefully. Write the name of the following lines :

Ans. a. 
slant line

b. 
wavy line

c. 
curvy

d.
vertical line

Exercise 9.2

1. Measure the following line segments :

Ans. a. Do it yourself.

2. Draw the line segments of the following lengths.

Ans. a. Do it yourself.

3. Measure the length of each line segment and compare by putting <, > or = signs.

Ans. a. $\overline{AB} = \overline{CD}$ b. $\overline{PQ} > \overline{RS}$ c. $\overline{EF} < \overline{GH}$

Exercise 9.3

1. Name the angles.

a. Right angle LMN
b. Acute angle ABC
c. Obtuse angle? PQR
d. Straight angle ABC
e. Complete angle PQR
f. Reflex angle RST

2. Name the arms and vertex of the given angles.

a. Angle —BCD, Vertex C, Arms $\overrightarrow{CB}$, $\overrightarrow{CD}$

b. Angle —AOB, Vertex O, Arms $\overrightarrow{OA}$, $\overrightarrow{OB}$

3. In the figure, name the points that lie.

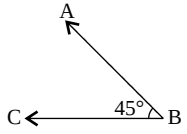
a. point G, D
b. point L, P
c. point B, J

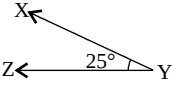
4. Use a protractor to measure the following angles and name them.

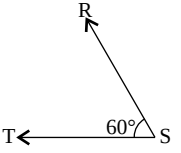
a. Right angle —PQR = 90°
b. Acute angle —AB = 45°
c. Acute angle —JKL = 80°

5. Draw the following angles in your notebook and name them :

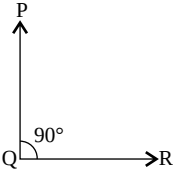
a. —ABC = 45° b. —XYZ = 25° c. —RST = 60°

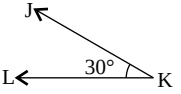


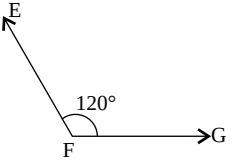




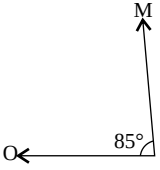
d. —PQR = —90° e. —JKL = 30° f. —EFG = 120°

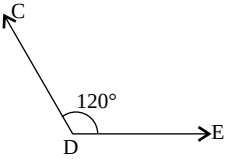






g. —MNO = 85° h. —CDE = 120°





Exercise 9.4

1. Put a tick (3) for the closed figure and (7) for open figure.

Ans. a. 3 b. 7 c. 3 d. 3 e. 7 f. 3

2. Colour the polygons.

Ans. Figure a, b are polygons.
Figure c, d, e are not polygons.

Exercise 9.5

1. Name the following in the figures given below :

Ans. (a)

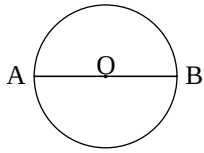
The centre	**O**
A radius	**OR**
A diameter	**MN**
A chord	**MQ**

(b)

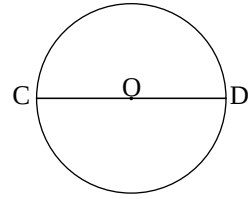
The centre	**O**
A radius	**OD**
A diameter	**AB**
A chord	**CD**

2. Draw a circle for each of the following radius in your notebook and measure the diameter :

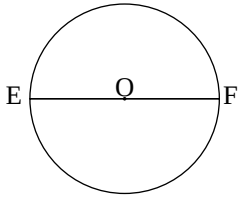
Ans. a. Radius = 4 cm
Diameter A B = 8 cm



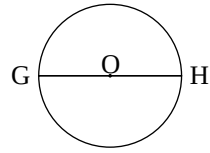
b. Radius CO = 5.5m
Diameter CD = 11 cm



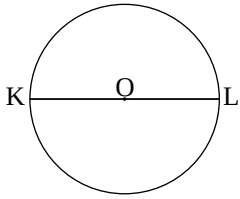
c. Radius EO = 5 cm
Diameter EF = 10 cm



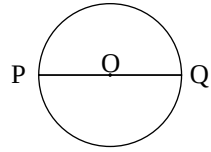
d. Radius GO = 2cm
Diameter GH = 4 cm



e. Radius KO = 3.5 cm
Diameter KL = 7 cm



f. Radius PO = 2.5 cm
Diameter PQ = 5 cm

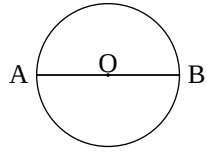


3. Calculate radius for the given diameter in each case and draw circle also :

Ans. a. Diameter d = AB = 2 cm

Radius r = AO = $\frac{d}{2} = \frac{2}{2}$

= 1 cm

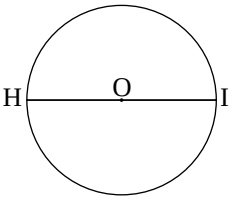


b. Diameter d = HI = 9 cm

Radius r = HO = $\frac{d}{2}$

= $\frac{9}{2}$ = 4.5 cm

HO = OI = 4.5 cm

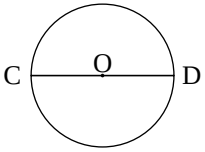


c. Diameter d = CD = 5 cm

Radius r = CO = OD = $\frac{d}{2}$

= $\frac{5}{2}$ = 2.5 cm

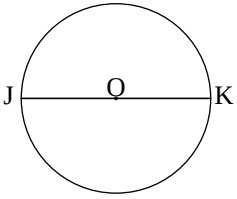
CO = OD = 2.5 cm



d. Diameter d = JK = 10 cm

Radius r = JO = OK

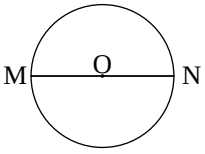
= $\frac{d}{2}$ = $\frac{10}{2}$ = 5 cm



e. Diameter d = MN = 4 cm

Radius r = $\frac{d}{2}$ = $\frac{4}{2}$ = 2cm

= MO = NO = 2 cm

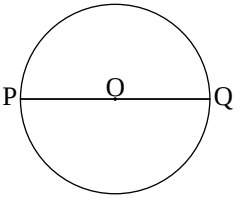


f. Diameter d = PQ = 6 CM

Radius PO = OQ = $\frac{d}{2}$

= $\frac{6}{2}$ = 3 cm

PO = OQ = 3 cm



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. a. 3. c. 4. a.

Symmetry and Patterns

10

Let's Review

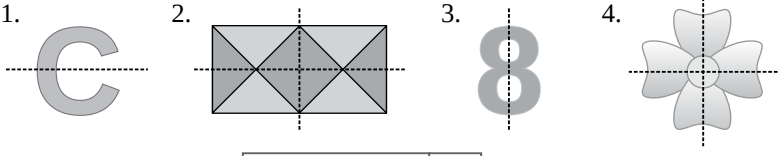
Tick (3) the correct shape which you will get after completing the halves :

Ans. a. iii. b. ii. c. i. d. iii.

Think And Do

Draw the lines of symmetry in the following :

Ans. 1. 2. 3. 4.

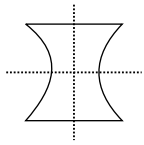
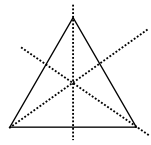


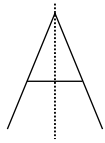
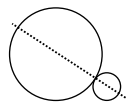
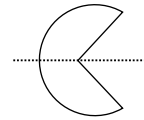
Exercise 10.1

1. Is the dotted line, a line of symmetry in each of the following?

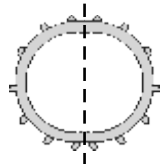
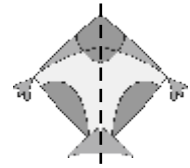
Ans. a. Yes b. Not c. Yes d. Not
e. Yes f. Not g. Not g. Not

2. Which of the following figures are symmetrical? Draw the axis of symmetry in the symmetrical figures.

Ans. a.  b.  c.  Not symmetry

d.  e.  f. 

3. Complete the figures along their line os symmetry.

Ans. a.  b.  c. 

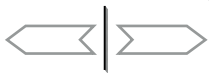
Exercise 10.2

1. Mark a tick for the figures that are examples of reflections :

Ans. b. ✓ c. ✗ d. ✗ e. ✗ f. ✗

2. Draw the figures whose reflections are given below:

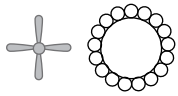
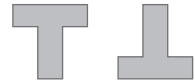
Ans. a.  b.  c. 

d.  e.  f. 

Exercise 10.3

1. Complete the patterns.

Ans. a.  b. 

c.  d. 

2. Write the next three terms in each pattern.

Ans. a. 59, 49, 39 b. 61, 73, 85 c. 12, 10, 8
d. E5, F6, G7; Z26 e. 8, 6, 4

3. Observe the patterns and fill in the blanks.

Ans. a. $1 + 2 + 3 + 04 + 05 = 15$
$2 + 3 + 4 + 05 + 06 = 20$
$3 + 4 + 5 + 06 + 07 = 25$
$4 + 5 + 6 + 07 + 08 = 30$
$5 + 6 + 7 + 08 + 09 = \mathbf{35}$
$6 + 7 + 8 + 09 + 10 = \mathbf{40}$
$7 + 8 + 9 + 10 + 11 = \mathbf{45}$

b. $(2 \times 2)\ (1 \times 1) = 2 + 1$
$(3 \times 3)\ (2 \times 2) = 3 + 2$
$(4 \times 4)\ (3 \times 3) = 4 + 3$
$(5 \times 5)\ (4 \times 4) = \mathbf{5 + 4}$
$(6 \times 6)\ (5 \times 5) = \mathbf{6 + 5}$
$(7 \times 7)\ (6 \times 6) = \mathbf{7 + 6}$

c. $9 \times 0 + 1 = 1$
$9 \times 1 + 2 = 11$
$9 \times 2 + 3 = 21$
$9 \times 3 + 4 = 31$
$9 \times 4 + 5 = \mathbf{41}$
$9 \times 5 + 6 = \mathbf{51}$
$9 \times 6 + 7 = \mathbf{61}$

d. $15873 \times 7 \times 1 = 111111$
$15873 \times 7 \times 2 = \mathbf{222222}$
$15873 \times 7 \times 3 = 333333$
$15873 \times 7 \times 4 = 444444$
$15873 \times 7 \times 5 = \mathbf{555555}$
$\mathbf{15873} \times 7 \times 6 = 666666$

4. The rules for these patterns consist of two steps-work them out and write the next three terms.

Ans. a. 1, 2, 5, 14, **41, 122, 365**
b. 1, 3, 7, 15, **31, 63, 127**
c. 1, 4, 13, 40, **121, 364, 1093**
d. 0, 3, 12, 39, **120, 363, 1092**
e. 2, 3, 5, 9 **17, 33, 65**

Exercise 10.4

1. Read the message using the first code above.

Ans. a. MEET ME IN PARK
b. PLANT MORE TREES

2. Using above table make a code for given messages :

Ans. a. 8262 1312 712 1112152719221322
b. 826522 22269719

MULTIPLE CHOICE QUESTIONS

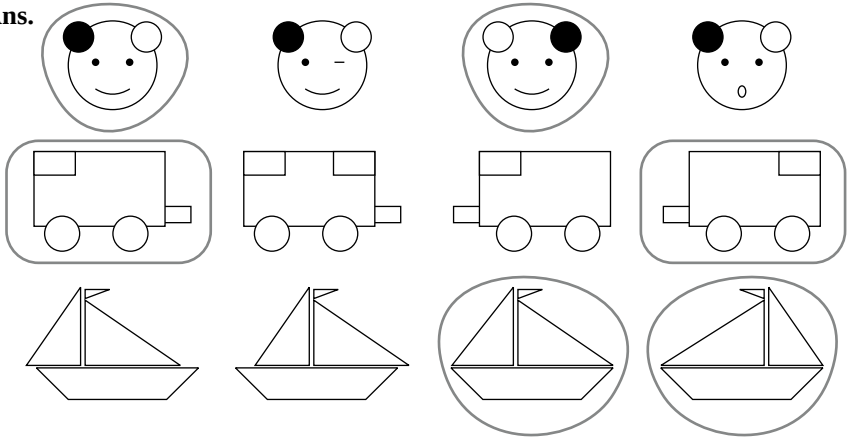
Tick (3) the correct choice :

Ans. 1. a. 2. a. 3. c. 4. a.

PLAY TIME

Circle the two images which are mirror images of each other.

Ans.



Let's Review

Write the correct unit (cm, m, km, g, kg, L and mL) for measuring the following :

Ans. 1. 

Length of a pencil [cm]

2. 

Height of tree [m]

3. 

Quantity of medicine in bottle [mL]

4. 

Length of the door [cm]

5. 

Height of the building [m]

6. 

Weight of an apple [g]

7. 

Weight of a watermelon [kg]

8. 

Capacity of paint in the bucket [L]

Think And Do

Fll in the blanks.

Ans. 1. 250 2. 750 3. 5250 4. 9500

Exercise 11.1

1. Change into centimetres :

Ans. 1 m = 100 cm

a. 12 m = 12 × 100 cm = **1200 cm**

b. 3 m = 3 × 100 cm = **300 cm**

c. 3 m 8 cm = 3 m + 8 cm = 3 × 100 cm + 8 cm = 300 cm + 8 cm = **308 cm**

d. 8 m 14 cm = 8 m + 14 cm = 8 × 100 cm + 14 cm = 800 cm + 14 cm = **814 cm**

e. 6 m 50 cm = 6 m + 50 cm = 6 × 100 cm + 50 cm = 600 cm + 50 cm = **650 cm**

f. 2 m 14 cm = 2 m + 14 cm = 2 × 100 cm + 14 cm = 200 cm + 14 cm = **214 cm**

g. 7 m 75 cm = 7 m + 75 cm = 7 × 100 cm + 75 cm = 700 cm + 75 cm = **775 cm**

h. 9 m 2 cm = 9 m + 2 cm = 9 × 100 cm + 2 cm = 900 cm + 2 cm = **902 m**

2. Express in metres and centimetres.

Ans. 100 cm = 1 m

a. 1437 cm = 1400 cm + 37 cm
= (1400 ÷ 100) m + 37 cm
= 14 m + 37 cm
= **14 m 37 cm**

b. 925 cm = 900 cm + 25 cm
= (900 ÷ 100) m + 25 cm
= 9 m + 25 cm
= **9 m 25 cm**

c. 600 cm
= (600 ÷ 100) m = 6 m

d. 901 cm
= 900 cm + 1 cm
= (900 ÷ 100) m + 1 cm
= 9 m + 1 cm = 9 m 1 cm

e. 705 cm
= 700 cm + 5 cm
= (700 ÷ 100) m + 5 cm
= 7 m + 5 cm
= **7 m 5 cm**

f. 310 cm
= 300 cm + 10 cm
= (300 ÷ 100) m + 10 cm
= 3 m + 10 cm
= **3 m 10 cm**

g. 385 cm
= 300 cm + 85 cm
= (300 ÷ 100) m + 85 cm
= 3 m + 85 cm
= **3 m 85 cm**

h. 4005 cm
= 4000 cm + 5 cm
= (4000 ÷ 100) m + 5 cm
= 40 m + 5 cm
= **40 m 5 cm**

3. Express in metres.

Ans. 1 km = 1000 m

a. 5 km = 5 × 1000 m = **5000 m**

b. 14 km = 14 × 1000 m = **14000 m**

c. 9 km 25 m = 9 km + 25 m = 9 × 1000 m + 25 m
= 9000 m + 25 m = **9025 m**

d. 8 km 705 m = 8 km + 705 m = 8 × 1000 m + 705 m
= 8000 m + 705 m = **8705 m**

e. 1 km 125 m = 1 km + 125 m = 1 × 1000 m + 125 m
= 1000 m + 125 m = **1125 m**

f. 6 km 295 m = 6 km + 295 m = 6 × 1000 m + 295 m
= 6000 m + 295 m = **6295 m**

g. $3\frac{1}{2}$ km = km = $\frac{7}{2}$ × 1000 m = $\frac{7000}{2}$ m = **3500 m**

h. $7\frac{1}{2}$ km = $\frac{15}{2}$ km = $\frac{15}{2}$ × 1000 m = $\frac{15000}{2}$ m = 7500 m

4. Change into kilometres and metres.

Ans. 1000 m = 1 km

a. 3000 m = (3000 ÷ 1000) km = **3 km**
b. 1084 m = 1000 m + 84 m
= (1000 ÷ 1000) km + 84 m
= 1 km + 84 m = **1 km 84 m**
c. 1950 m = 1000 m + 950 m
= (1000 ÷ 1000) km + 950 m
= 1 km + 950 m = **1 km 950 m**
d. 7025 m = 7000 m + 25 m
= (7000 ÷ 1000) km + 25 m
= 7 km + 25 m = **7 km 25 m**
e. 1805 m = 1000 m + 805 m
= (1000 ÷ 1000) km + 805 m
= 1 km + 805 m = **1 km 805 m**
f. 8050 m = 8000 m + 50 m
= (8000 ÷ 1000) km + 50 m
= 8 km + 50 m
= **8 km 50 m**
g. 5175 m = 5000 m + 175 m
= (5000 ÷ 1000) km + 175 m
= 5 km + 175 m
= **5 km 175 m**
h. 3246 m = 3000 m + 246 m
= (3000 ÷ 1000) km + 246 m
= 3 km + 246 m
= **3 km 246 m**

5. Change the following.

Ans. 1 cm = 10 mm
1 dm = 10 cm = 100 mm
10 dm = 1 m

a. 61 cm 9 mm into mm
= 61 cm + 9 mm
= 61 × 10 mm + 9 mm
= 610 mm + 9 mm
= **619 mm**
b. 921 dm into m
= 920 dm + 1 dm = (920 ÷ 10) m + 1 dm
= 92 m + 1 dm = **92 m 1 dm**
c. 12 dm 5 cm into cm
= 12 dm + 5 cm = 12 × 10 cm + 5 cm
= 120 cm + 5 cm = **125 cm**
d. 50 mm
= (50 ÷ 10) cm = **5 cm**

Exercise 11.2

1. Change the following into g.

Ans. 1 kg = 1000 g

a. 17 kg = 17 × 1000 g = **17000 g**
b. 12 kg = 12 × 1000 g = **12000 g**

c. 9 kg 279 g = 9 kg + 279 g = 9 × 1000 g + 279 g
= 9000 g + 279 g = **9279 g**

d. 4 kg 15 g = 4 kg + 15 g = 4 × 1000 g + 15 g
= 4000 g + 15 g = **4015 g**

e. 11 kg 9 g = 11 kg + 9 g = 11 × 1000 g + 9 g
= 11000 g + 9 g = **11009 g**

f. 6 kg 75 g = 6 kg + 75 g = 6 × 1000 g + 75 g
= 6000 g + 75 g = **6075 g**

g. 15 kg 15 g = 15 kg + 15 g = 15 × 1000 g + 15 g
= 15000 g + 15 g = **15015 g**

h. 7 kg 256 g = 7 kg + 256 g = 7 × 1000 g + 256 g
= 7000 g + 250 g = **7256 g**

2. Change the following into mg.

Ans. 1 g = 1000 mg

a. 10 g = 10 × 1000 mg = **10,000 mg**

b. 19 g = 19 × 1000 mg = **19,000 mg**

c. 5 g 25 mg = 5 g + 25 mg = 5 × 1000 mg + 25 m
= 5000 mg + 25 mg = **5025 mg**

d. 6 g 732 mg = 6 g + 732 mg = 6 × 1000 mg + 732 m
= 6000 mg + 732 mg = **6732 mg**

e. 3 g 58 mg = 3 g + 58 mg = 3 × 1000 mg + 58 mg
= 3000 mg + 58 mg = **3058 mg**

f. 3 g 408 mg = 3 g + 408 mg = 3 × 1000 mg + 408 mg
= 3000 mg + 408 mg = **3408 mg**

g. 82 g 82 mg = 82 g + 82 mg = 82 × 1000 mg + 82 mg
= 82000 mg + 82 mg = **82082 mg**

h. 1 g 9 mg = 1 g + 9 mg = 1 × 1000 mg + 9 mg
= 1000 mg + 9 mg = **1009 mg**

3. Change the following into kg.

Ans. 1000 g = 1 kg

a. 2075 g = 2000 g + 75 g = (2000 ÷ 1000) kg + 75 g
= 2 kg + 75 g = **2 kg 75 g**

b. 8008 g = 8000 g + 8 g = (8000 ÷ 1000) kg + 8 g
= 8 kg + 8 g = **8 kg 8 g**

c. 8080 g = 8000 g + 80 g = (8000 ÷ 1000) kg + 80 g
= 8 kg + 80 g = **8 kg 80 g**

d. 4000 g = (4000 ÷ 1000) kg = **4 kg**

e. 6700 g = 6000 g + 700 g = (6000 ÷ 1000) kg + 700 g
= 6 kg + 700 g = **6 kg 700 g**

f. 77008 g = 77000 g + 8 g = (77000 ÷ 1000) kg + 8 g
= 77 kg + 8 g = **77 kg 8 g**

g. 7849 g = 7000 g + 849 g = (7000 ÷ 1000) kg + 849 g
= 7 kg + 849 g = **7 kg 849 g**

h. 2387 g = 2000 g + 387 g = (2000 ÷ 1000) kg + 387 g
= 2 kg + 387 g = **2 kg 387 g**

4. Change the following into g.

Ans. 1000 mg = 1 g

a. 8000 mg = (8000 ÷ 1000) g = **8 g**

b. 4200 mg = 4000 mg + 200 mg = (4000 ÷ 1000) g + 200 mg
= 4 g + 200 mg = **4 g 200 mg**

c. 7288 mg = 7000 mg + 288 mg = (7000 ÷ 1000) g + 288 mg
= 7 g + 288 mg = **7 g 288 mg**

d. 4500 mg = 4000 mg + 500 mg = (4000 ÷ 100) g + 500 mg
= 4 g + 500 mg = **4 g 500 mg**

e. 3255 mg = 3000 mg + 255 mg = (3000 ÷ 1000) g + 255 mg
= 3 g + 255 mg = **3 g 255 mg**

f. 6018 mg = 6000 mg + 18 mg = (6000 ÷ 1000) g + 18 mg
= 6 g + 18 mg = **6 g 18 mg**

g. 27055 mg = 27000 mg + 55 mg = (27000 ÷ 1000) g + 55 mg
= 27 g + 55 mg = **27 g 55 mg**

h. 19265 mg = 19000 mg + 265 mg = (19000 ÷ 1000) g + 265 mg
= 19 g + 265 mg = **19 g 265 mg**

Exercise 11.3

1. Convert into L.

Ans. 1 kL = 1000 L

a. 6 kL = 6 × 1000 L = **6000 L**

b. 15 kL = 15 × 1000 L = **15000 L**

c. 6 kL 90 L = 6 kL + 90 L = 6 × 1000 L + 90 L
= 6000 L + 90 L = 6090L

d. 8 kL 8 L = 8 kL + 8 L = 8 × 1000 L + 8 L
= 8000 L + 8 L = 8008 L

e. 4 kL 70 L = 4 kL + 70 L = 4 × 1000 L + 70 L
= 4000 L + 70 L = 4070 L

f. 12 kL 265 L = 12 kL + 265 L = 12 × 1000 L + 265 L
= 12000 L + 265 L = 12265 L

g. 18 kL 1 L = 18 kL + 1 L = 18 × 1000 L + 1 L
= 18000 L + 1 L = 18001 L

h. 25 kL 70 L = 25 kL + 70 L = 25 × 1000 L + 70 L
= 25000 L + 70 L = 25070 L

2. Convert into mL.

Ans. 1 L = 1000 mL

a. 16 L = 16 × 1000 mL = 16000 mL

b. 7 L = 7 × 1000 mL = 7000 mL

c. 1 L 4 mL = 1 L + 4 mL = 1 × 1000 mL + 4 m
= 1000 mL + 4 mL = 1004 mL

d. 7 L 270 mL = 7 L + 270 mL = 7 × 1000 m + 270 mL
= 7000 mL + 270 mL = 7270 mL

e. 17 L 55 mL = 17 L + 55 mL = 17 × 1000 mL + 55 mL
= 17000 mL + 55 mL = 17055 mL

f. 10 L 450 mL = 10 L + 450 mL = 10 × 1000 mL + 450 mL
= 10,000 mL + 450 mL = **10,450 mL**

g. 3 L 15 mL = 3 L + 15 mL = 3 × 1000 mL + 15 mL

= 3000 mL + 15 mL = **3015 mL**

h. 2 L 970 mL = 2 L + 970 mL = 2 × 1000 mL + 970 mL
= 2000 mL + 970 mL = **2970 mL**

3. Convert into kL.

Ans. 1000 L = 1 kL

a. 7280 L = 7000 L + 280 L = (7000 ÷ 1000) kL + 280 L
= 7 kL + 280 L = **7 kL 280 L**

b. 62000 L = (62000 ÷ 1000) kL = 62 kL

c. 15255 L = 15000 L + 255 L = (15000 ÷ 1000) kL + 255 L
= 15 kL + 255 L = **15 kL 255 L**

Exercise 11.4

1. Add :

Ans. a. 75 kg 250 g + 62 kg 127 g
= 137 kg 377 g

kg	g
75	250
+ 62	127
137	377

b. 8 L 455 mL + 16 L 285 mL
= 24 L 740 mL

kg	g
8	455
+ 16	285
24	740

c. 42 km 175 m + 69 km 675 m
= 111 km 850 m

kg	g
42	175
+ 69	675
111	850

d. 54 kg 672 g + 67 kg 372 g
= 122 kg 44g

kg	g
54	672
+ 67	372
122	044

e. 8 g 30 mg + 19 g 705 mg +
30 g 475 mg = 58 g 210 mg

g	mg
8	30
+ 19	705
30	475
58	210

f. 33 L 333 mL + 66 L 666 mL
= 99 L 999 mL

L	mL
33	333
+ 66	666
99	999

g. 15 m 25 cm + 8 m 65 cm
= 23 m 90 cm

m	mL
15	25
+ 8	65
23	90

2. Subtract :

a. 10 L 250 mL – 5 L 650 mL
= 4 L 600 mL

L	mL
10	250
– 5	650
4	600

b. 81 kg 350 g – 73 kg 450 g
= 7 kg 900 g

kg	g
81	350
– 73	450
7	900

c. 32 kg 100 g – 17 kg 400 g
= 14 kg 700 g

kg	g
32	100
– 17	400
14	700

d. 92 m 66 cm – 88 m 46 cm
= 4 m 20 cm

m	cm
92	66
– 88	46
4	20

e. 38 g 400 mg – 27 g 875 mg
= 10 g 525 mg

g	mg
38	400
– 27	875
10	525

f. 88 L 672 mL – 74 L 900 mL
= 13 L 772 mL

L	mL
88	672
– 74	900
13	772

g. 72 km 700 m – 66 km 825 m
= 5 km 875 m

km	m
72	700
– 66	825
5	875

h. 40 km – 35 km 675 m
= 4 km 325 m

km	m
40	000
– 35	675
4	325

Exercise 11.5

Solve the following :

Ans. 1. The mangoes are bought = 9 kg 500 g
The mangoes are sold = 4 kg 750 g
The mangoes are left with him = 4 kg 750 g
So, 4 kg 750 g mangoes are left with the shopkeeper.

kg	g
9	500
– 4	750
4	750

2. Distance travelled by car = 5 km 250 m
Distance travelled by bus = 3 km 450 m
Distance travelled by walk = 600 m
Total distance = 9 km 300 m
So, Mr. Jackson travelled 9 km 300 m in all.

kg	g
5	250
3	450
+ 0	600
9	300

3. Orange squash = 12 L 250 mL
Lemon squash = 16 L 300 mL
Pineapple squash = 10 L 0 mL
Total quantity of squash = 38 L 550 mL
So, Mary made 38 L 550 mL total quantity of squash.

L	ml
12	250
16	300
+ 10	000
38	550

4. Ribbon is bought by Roma = 32 m
Ribbon is used in dress = 18 m 75 cm
Ribbon is left = 13 m 75 cm
So, 13 m 75 cm of ribbon is left with Roma.

m	cm
32	00
– 18	75
13	25

5. Total quantity of juice was = 2 L 200 mL
The juice was drunk by Kamal = 750 mL
The juice is left in the pack = 1 L 450 mL
So, 1 L 450 mL of juice is left in the pack.

	m	cm
	2	200
−	0	750
	1	450

6. Weight of potatoes = 2 kg 400 g
Weight of tomatoes = 1 kg 550 g
Total weight of both = 3 kg 950 g
So, Mrs Tomar bought 3 kg 950 g of vegetables.

	kg	g
	2	400
+	1	550
	3	950

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. b. 3. b. 4. b. 5. a.

PLAY TIME

Complete in the cross number puzzle using the conversion rules.

Ans.

[1] 3	2						
0		[2] 4					
	[3] 6	3					
[4] 7		8					
[5] 2	7						
0		[6] 3					
	[7] 4	6	1		[8] 9	[9] 5	
[10] 8		2		[11] 7		2	
[12] 8	9		[13] 4	2	5		

Time and Calendar

12

Let's Review

A. Write the time using am or pm

Ans. 1.

5 : 00 pm

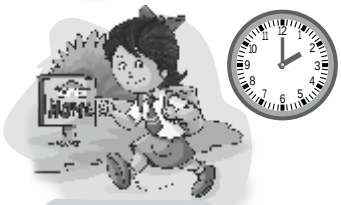
2.

10 : 00 pm

3.

6 : 00 am

4.



2 : 00 pm

Exercise 12.1

1. Read the time shown in the clock to the exact minute and write it in any two ways.

Ans. a. 7:17
17 minutes past 7

b. 10:22
22 minutes past 10

c. 4:50
10 minutes to 5

d. 6:17
17 minutes past6

e. 9:36
24 minutes to 10

f. 10:12
12 minutes past 10

2. Draw the hands of the clocks to show the given time.

Ans. a. 
3 : 42

b. 
9 : 13

c. 
3 : 50

3. Write the time 2 hours before :

Ans. a. 1 : 18 a.m.
The time 2 hours be fore 1 : 18 am is 11 : 18 pm

b. 7 : 25 a.m.
The time 2 hours be fore 7 : 25 am is 5 : 25 am

c. 9 : 08 a.m.
The time 2 hours be fore 9 : 08 am is 7 : 08 am

d. 11 : 47 a.m.
The time 2 hours be fore 11 : 47 am is 9 : 47 am

e. 10 : 30 p.m.
The time 2 hours be fore 10 : 30 pm is 8 : 30 pm

f. 1 : 02 p.m.
The time 2 hours be fore 1 : 02 pm is 11 : 02 am

4. Give the time 3 hours after :

Ans. a. 11 : 00 p.m.
The time 3 hours after 11 : 00 pm is 2 : 00 am

b. 8 : 31 p.m.
The time 3 hours after8 : 31 pm is 11 : 31 pm

c. 7 : 40 a.m.
The time 3 hours after 7 : 40 am is 10 : 40 am

d. 1 : 04 p.m.
The time 3 hours after 1 : 04 pm is 4 : 04 pm

e. 6 : 03 a.m.
The time 3 hours after 6 : 03 am is 9 : 03 am

f. 11 : 15 a.m.

Think And Do

1. Hockey match was start at 1440 hours.
   The time in the 12 hour clock would be **2:40 p.m**.
2. 4:15 p.m. in the 24 hours clock to **1615 hours**

Exercise 12.2

1. Change the 12-hour clock time to 24-hour clock time :

Ans.	**12-hour clock time**	**24-hour clock time :**
a.	10 : 00 a.m.	1000 hours
b.	11 : 00 a.m.	1100 hours
c.	12 midnight	0000 hours/2400 hours
d.	2 : 47 p.m.	1447 hours
e.	8 : 45 a.m.	0845 hours
f.	8 : 20 p.m.	2020 hours
g.	1 : 05 p.m.	1305 hours
h.	3 : 15 a.m.	0315 hours

2. Change the 24-hour clock time to 12-hour clock time :

Ans.	**24-hour clock time**	**12-hour clock time**
a.	0800 hours	8 : 00 am
b.	1320 hours	1 : 20 pm
c.	1640 hours	4 : 40 pm
d.	1115 hours	11 : 15 am
e.	0430 hours	4 : 30 am
f.	2340 hours	11 : 40 pm
g.	1200 hours	12 : 00 noon
h.	2250 hours	10 : 50 pm

Exercise 12.3

1. Convert the following into seconds :

Ans. 1 minute = 60 seconds

a. 5 minutes = 5 × 60 seconds = **300 seconds**

b. 17 minutes = 17 × 60 seconds = **1020 seconds**

c. 24 minutes = 24 × 60 seconds = **1440 seconds**

d. 36 minutes 48 seconds = 36 minutes + 48 seconds
   = 36 × 60 seconds + 48 seconds = 2160 second + 48 seconds
   = **2208 seconds**

e. 10 minutes 17 seconds = 10 minutes + 17 seconds
   = 10 × 60 seconds + 17 seconds = 600 seconds + 17 seconds
   = **617 seconds**

2. Convert the following into hours and minutes :

Ans. 60 minutes = 1 hour

a. 487 minutes = (487 ÷ 60) hours
   487 ÷ 60 gives quotient 8 and remainder 7
   = 8 hours 7 minutes

$$\begin{array}{r} 60\overline{)487}(8 \\ -480 \\ \hline 9 \end{array}$$

b. 325 minutes = (325 ÷ 60) hours
   325 ÷ 60 gives quotient 5 and remainder 25.
   = 5 hours 25 minutes

$$\begin{array}{r} 60\overline{)325}(5 \\ -300 \\ \hline 25 \end{array}$$

c. 156 minutes = (156 ÷ 60) hours
156 ÷ 60 gives quotient 2 and remainder 36
= 2 hours 36 minutes

d. 526 minutes = (526 ÷ 60) hours
526 ÷ 60 gives quotient 8 and remainder 46
= 8 hours 46 minutes

e. 1515 minutes = (1515 ÷ 60) hours
1515 ÷ 60 gives quotient 25 and remainder 15
= 25 hours 15 minutes

f. 1025 minutes = (1025 ÷ 60) hours
1025 ÷ 60 gives quotient = 17 and remainder 5
= 17 hours 5 minutes

3. Convert the following into minutes :

Ans. 60 minutes = 1 hour
60 seconds = 1 minutes

a. 360 seconds = (360 ÷ 60) minutes = **6 minutes**

b. 7 hours = 7 × 60 minutes = **420 minutes**

c. 3 hours 25 minutes = 3 hours + 25 minutes
= 3 × 60 minutes + 25 minutes = 180 minutes + 25 minutes
= **205 minutes**

d. 5 hours 20 minutes = 5 hours + 20 minutes = 5 × 60 minutes + 20 minutes
= 300 minutes + 20 minutes = **320 minutes**

e. 15 hours 6 minutes = 15 hours + 6 minutes = 15 × 60 minutes + 6 minutes
= 900 minute + 6 minutes = **906 minutes**

f. 6 hours 14 minutes = 6 hours + 14 minutes = 6 × 60 minutes + 14 minutes
= 360 minutes + 14 minutes = **374 minutes**

Exercise 12.4

1. Add :

Ans. a.

	min	sec
	(1)	
	4	5
	1	5
	1	0	0

b.

	Hr	min
	(1)	
	3	5
	4	0
	1	1	5

c.

	Hr	min
	(1)	
	3	3	2
	4	4	8
	8	2	0

d.

	Hr	min	sec
	(1)	(1)	
	10	40	26
+	4	26	34
	15	07	00

e.

	Hr	min	sec
	(1)	(1)	
	35	40	50
+	5	26	30
	40	66	80

f.

	Hr	min	sec
	(1)(1)	(1)	
	13	40	54
	9	28	31
	23	29	25

2. Find :

Ans. a.

	min	sec
	40	45
−	28	20
	12	25

b.

	min	sec
	12	45
−	6	30
	6	15

c.

	min	sec
	3	48
−	1	03
	2	45

d.

	Hr	min	sec
	12	20	04
−	8	14	02
	4	06	02

e.

Hr	min	sec
24	77	65
~~25~~	~~73~~	~~05~~
−16	24	10
8	49	55

f.

Hr	min	sec
13	77	85
~~14~~	~~18~~	~~25~~
− 6	30	48
7	47	37

3. Add :

Ans. a. 12 hr 45 min + 15 hr 35 min
= 28 hr 20 min

hr	min
(1)	
12	45
+15	35
28	20

b. 7 hr 40 min + 10 hr 25 min
= 18 hr 05 min

hr	min
(1)	
7	40
+10	25
18	05

c. 19 hr 25 min + 13 hr 50 min
= 33 hr 15 min

hr	min
(1)	
19	25
+13	50
33	15

d. 16 hr + 14 hr 50 min
= 30 hr 50 min

hr	min
16	00
+14	50
30	50

e. 2 hr 20 min + 8 hr 40 min
= 11 hr

hr	min
(1)	
2	20
+ 8	40
11	00

f. 3 hr 15 min + 5 hr 30 min
= 8 hr 45 min

hr	min
3	15
+ 5	30
8	45

4. Subtract :

Ans. a. 18 hr 50 min – 12 hr 35 min
= 6 hr 15 min

hr	min
18	50
−12	25
6	15

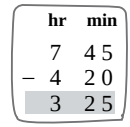
b. 15 hr 30 min – 11 hr
= 4 hr 30 min

hr	min
15	50
−11	35
4	15

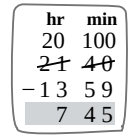
c. 14 hr 45 min – 9 hr 50 min
= 4 hr 55 min

hr	min
13	105
~~14~~	~~45~~
− 9	50
4	55

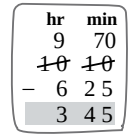
d. 7 hr 45 min – 4 hr 20 min
= 3 hr 25 min



e. 21 hr 40 min – 13 hr 55 min
= 7 hr 45 min

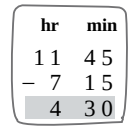


f. 10 hr 10 min – 6 hr 25 min
= 3 hr 45 min



5. Find the duration of time from :

Ans. a. Duration of time from 7 : 15 a.m. to 11 : 45 a.m.
= 11 = 45 am 7 : 15 am = 4 hr 30 min

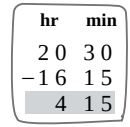


b. Duration of time from 1 : 15 p.m. to 2 : 00 p.m.
= 2 : 00 pm 1 : 15 pm
= **45 min**

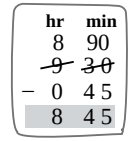
c. Duration of time from 10 : 30 a.m. to 5 : 30 p.m.
= from 1030 hr to 1730 hr
= 1730 hr 10 30 hr
= **700 hr**

d. Duration of time from 1230 hr to 0900 hr (Next day)
Duration of time from 12 : 30 hr to (0900 + 24 00
= 3300 hr)
= 3300 hr 1230 hr = **20 hr 30 min**

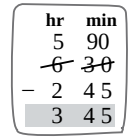
e. Duration of time from 1615 hr to 2030 hr
= 2030 hr 1615 hr
= **4 hr 15 min**



6. a. 45 minutes before 9:30 a.m. = 8:45 a.m.
Manav reached the school at 9:30 a.m.
Naman reached the school 45 minutes before Manav
So, Naman reached the school at **8:45 a.m.**.



b. Time earlier 2 hours 45 from 6 : 30 pm = 3 : 45 pm
Arpit reached home at 6 : 30 pm
Johan had reached 2 hours 45 minutes earlier than Arpit.
So, Johan had reached home at **3 : 45 pm**



c. Programme states at 1415 hours
Programme ends after 3 hours 45 minutes.
So, programme will end at **1800 hours**.

hr	min
1	
~~14~~	~~15~~
− 3	45
18	00

d. 3 hr 45 min before 9 : 30 am = 5 : 45 am
The Chennai Mail reached at 9 : 30 am
The Hourah mail had reached 3 hours 45 min before.
So, the Howrach mail had reached Mumbai at 5 : 45 am.

hr	min
8	90
~~9~~	~~30~~
− 3	45
5	45

e. Jane took 12 hr 35 min for same distance.
Joe took 8 hr 42 min for same distance.
So less time take by Joe = 12 hr 35 min – 8 hr 4 min
= 3 hr 53 min
So, Joe took less time by 3 hr 53 min than Jane.

hr	min
11	95
~~12~~	~~35~~
− 8	42
3	53

f. 20 minutes after 7 : 15 am = 7 : 35 am
40 minutes after 7 : 35 am = 8 : 15 am
15 minutes after 8 : 15 am = 8 : 30 am
Shreya started for school at 7 : 15 am
She waited for 20 min upto 7 : 35 for the bus.
She traelled for 40 min upto 8 : 15 am
She walked for 15 min upto 8 : 30 am
So, she reached school at **8 : 30 am**

g. A bus reached city bat 3 : 35 pm
A bus left city A at 2 : 40 pm
The time taken by bus = 3 : 35 pm 2 : 40 pm = 55 minutes.
So, the bus took 55 minutes to reach city B from city A.

hr	min
2	95
~~3~~	~~35~~
− 2	40
0	55

h. Rohit took 3 hr 23 min to reach same distance.
Rahul took 2 hr 53 min more than Rohit.
Time was taken by Rahul = 3 hr 23 min + 2 hr
53 min = **5 hr 76 min = 6 hr 16 min**

hr	min
3	23
+ 2	53
5	76

Exercise 12.5

1. Convert the days to hours :

Ans. A day = 24 hours
A fort night = 15 days

a. $1\frac{1}{2}$ days = $\frac{3}{2}$ days = $\frac{3}{2}$ × 24 hours = **36 hours**

b. 3 days = 3 × 24 hours = **72 hours**

c. A fortnight = 15 days = 15 × 24 hours = **360 hours**

d. $3\frac{1}{4}$ days = $\frac{13}{4}$ days = $\frac{13}{4}$ × 24 hours = **78 hours**

2. Convert into days :

Ans. 1 week = 7 days

a. 96 hours = (96 ÷ 24) days = **4 days**

b. 2 weeks and 4 days = 2 × 7 days + 4 days = 14 days + 4 days
= **18 days**

c. 146 hours = (146 ÷ 24) days
146 ÷ 24 (gives quotient = 6 and remainder = 2) = 6 days 2 hr

d. 4 weeks = 4 × 7 days = **28 days**

3. Which of the following are leap years?

Ans. a. 1998
1998 is not exactly divisible by 4.
So, 1998 is not a leap year.

$$\begin{array}{r} 499 \\ 4\overline{)1998} \\ -16 \\ \hline 39 \\ -36 \\ \hline 38 \\ -36 \\ \hline 02 \end{array}$$

b. 1952
1952 is exactly divisible by 4.
So, 1952 is a leapyear.

$$\begin{array}{r} 688 \\ 4\overline{)1952} \\ -16 \\ \hline 35 \\ -32 \\ \hline 32 \\ -32 \\ \hline 0 \end{array}$$

c. 2002
2002 is not divisible by 4.
So, 2002 is not a leap year.

$$\begin{array}{r} 500 \\ 4\overline{)2002} \\ -20 \\ \hline 02 \\ -00 \\ \hline 2 \end{array}$$

d. 2004
2004 is exactly divisible by 4.
So, 2004 is a leap year.

$$\begin{array}{r} 501 \\ 4\overline{)2004} \\ -20 \\ \hline 004 \\ -4 \\ \hline 0 \end{array}$$

e. 2010
2010 is not divisible by 4.
So, 2010 is not a leap year.

$$\begin{array}{r} 502 \\ 4\overline{)2012} \\ -20 \\ \hline 10 \\ -8 \\ \hline 2 \end{array}$$

f. 2012
2012 is exactly divisible by 4.
So, 2012 is a leap year.

$$\begin{array}{r} 503 \\ 4\overline{)2012} \\ -20 \\ \hline 012 \\ -12 \\ \hline 0 \end{array}$$

g. 2032
2032 is exactly divisible by 4.
So, 2032 is a leap year.

$$\begin{array}{r} 508 \\ 4\overline{)2032} \\ -20 \\ \hline 032 \\ -32 \\ \hline 0 \end{array}$$

h. 2028
2028
2028 is exactly divisible by 4.
So, 2028 is a leap year.

$$\begin{array}{r} 207 \\ 4\overline{)2028} \\ -20 \\ \hline 28 \\ -28 \\ \hline 0 \end{array}$$

4. Solve.

Ans. a. Nandini was on leave from 10 May to 11 July.
Days from 10 May to 31 May = 22 days.
Days from 1 June to 30 June = 30 days.
Days from 1 July to 11 July = 11 days
Total Days when she was on leave = 22 + 30 + 11 = **63 days.**
So, Nandini was on leave of 63 days.

b. Gaurav's family reach Shimla on the morning of 19 October.
They left Shimla on 5 November.
Days from 19 October to 31 October = 13 days
Days from 1 November to 5 November = 5 days
Total days when they stayed in Shimla = 13 + 5 = 18 days.
So they stayed in Shimla **18 days**

c. Mrs Kaushal took a leave of 35 days from 14th April.
Days from 14 April to 30 April = 17 days
Days of leave in May = 35 – 17 = 18
So, she was on leave from 14th April 18th May.
So, she will rejoin on 19th May her duty.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. c. 3. c. 4. b. 5. a

PLAY TIME

Ans. Do it yourself.

13 Money

Let's Review

4 friends wants to buy a caram board which costs `375.50. They are counting their money. Help them to count the money.

Ans.

2 notes of ` 10
3 notes of ` 5
5 notes of ` 2
Total money = ` 45

6 notes of ` 20
1 coin of ` 5
6 coins of 50 p
Total money = ` 128

2 notes of ` 50
1 note of ` 10
8 coins of ` 1
Total money = ` 118

4 notes of ` 10
8 coins of ` 2
1 note of ` 50
Total money = ` 106

Now answer the following questions.

Ans. a. ` 397 b. Yes c. ` 21.50

Exercise 13.1

1. Write as paise (p) :

Ans. a. ` 6 = **600** p
b. ` 10 = **1000** p
c. ` 5.50 = **550** p
d. ` 4.15 = **415** p
e. ` 32.25 = **3225** p
f. ` 7.05 = **705** p

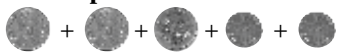
g. ` 151.20 = **15120** p
h. ` 18.50 = **1850** p
i. ` 40.70 = **4070** p

2. Write as rupees (`) :

Ans. a. 100 p = ` **1**
b. 600 p = ` **6**
c. 2600 p = ` **26**
d. 575 p = ` **5.75**
e. 1545 p = ` **15.45**
f. 2750 p = ` **27.50**

Think And Do

Write amount to paise :

Ans. 1.  = **600 p**

2.  = **2500 p**

3.  = **13000 p**

4.  = **15,000 p**

Exercise 13.2

1. Add the following :

Ans. a.

	①
`	227.57
+ `	621.68
`	849.25

b.

	①	①
`	641.79	
+ `	191.81	
`	833.60	

c.

	①	①
`	781.11	
+ `	321.23	
+ `	521.59	
`	1623	93

d.

	①	①
`	207.91	
+ `	130.21	
+ `	97.65	
`	435	77

2. Add :

Ans. a. ` 33.07 + ` 54.45 + ` 96.08 = ` 183.60

	`	p
	33	07
	54	45
+	96	08
	183	60

b. ` 207.23 + ` 149.50 + ` 9.27 = ` 366.00

	`	p
	207	23
	149	50
+	9	27
	366	00

c. ` 61 + ` 40.50 + ` 73.75 = ` 175.25

	`	p
	61	00
	40	50
+	73	75
	175	25

d. ` 38.90 + ` 79 + ` 58.58 = ` 166.48

	`	p
	38	90
	79	00
+	58	58
	166	48

3. Subtract the following.

Ans. a.
```
  ` 205.45
− ` 145.30
  `  60.15
```
b.
```
  ` 713.50
− ` 119.06
  ` 594.44
```
c.
```
  ` 847.91
− ` 691.21
  ` 156.70
```
d.
```
  ` 498.70
− ` 211.20
  ` 287.50
```

4. Subtract :

Ans. a. ` 63.47 from ` 192.60 = ` 129.13
b. ` 326.69 from ` 500 = ` 173.31
c. ` 215.80 from ` 557.25 = ` 341.45
d. ` 69.56 from ` 802.49 = ` 732.93

5. Solve :

Ans. a. The cost of a foot ball = ` 110.00
The cost of a toy car = ` 90.00
Difference in their costs = ` 20.00
So, ` 20 is the difference in their cost.

b. The cost of a packet of crayons = ` 25.50
The cost of a book = ` 60.75
The cost of a bag = ` 135.95
The total cost of all the things ` 222.20
So, total cost of all things is ` 222.20

c. The cost of a book = ` 89.75
The cost of a pen = ` 25.00
total money spent = 114.75
Sambhav gave to shopkeeper = ` 200.00
he spent money = ` 114.75
Money should be get back ` 85.25
So, ` 85.25 should be get back.

Exercise 13.3

1. Find the product :

Ans. a. ` 61.25 × 18 = ` **1102.50**
```
  61.25
×   18
------
 49000
+61250
------
1102.50
```
b. ` 9.95 × 34 = ` **338.30**
```
   9.95
×   34
------
  3980
+29850
------
 338.30
```
c. ` 17.06 × 25 = ` **426.50**
```
  17.06
×   25
------
  8530
+34120
------
 426.50
```
d. ` 37.48 × 42 = ` **1574.16**
```
  37.48
×   42
------
  7496
+149920
-------
1574.16
```

e. ` 92.64 × 15 = ` **1389.60**

```
  92.64
×    15
 46320
+92640
1389.60
```

f. ` 70.48 × 23 = ` **1621.04**

```
  70.48
×    23
 21144
+140960
1621.04
```

2. Divide :

Ans. a. ` 518.25 ÷ 5 = ` 103.65

```
  103.65
5)518.25
 -5
  18
 -15
   32
  -30
    25
   -25
     0 = r
```

b. ` 8,260.44 ÷ 4 = ` 2065.11

```
  2065.11
4)8260.44
 -8
  26
 -24
   20
  -20
     4
    -4
     04
     4
     0
```

c. ` 4,106.92 ÷ 2 = ` 2053.46

```
  2053.46
2)4106.92
 -4
  10
 -10
    6
   -6
     9
    -8
     12
    -12
      0
```

d. ` 937.44 ÷ 3 = ` 312.48

```
  312.48
3)937.44
 -9
  3
 -3
   7
  -6
   14
 -12
   24
  -24
    0
```

e. ` 343.20 ÷ 11 = ` 31.20

```
  31.20
11)343.20
 -33
  13
 -11
   22
  -22
    08
   -0
    0
```

f. ` 3,889.20 ÷ 12 = ` 324.10

```
  324.10
12)3889.20
 -36
  28
 -24
   49
  -48
    12
   -12
     0
    -0
     0
```

g. ` 9,223.92 ÷ 9 = ` 1024.88

```
   1024.88
9)9223.92
 − 9
  22
 − 18
   43
 − 36
   79
 − 72
    72
 − 72
     0
```

h. ` 7,127.33 ÷ 7 = ` 1018.19

```
   1018.19
7)7127.33
 − 7
  12
 − 7
   57
 − 56
    13
 − 7
    63
 − 63
     0
```

i. ` 3,364.80 ÷ 16 = ` 210.30

```
    210.30
16)3364.80
 − 32
   16
 − 16
    48
 − 48
     0
 − 0
   0
```

3. Solve the following word problems.

Ans. a. The cost of 1 kg of rice = ` 13.50
The cost of 35 kg of rice = ` 13.50 × 35
= ` 472.50
So, the cost of 35 kg of rice is ` **472.50**.

```
  13.50
×   35
 6750
40500
472.50
```

b. The price of a crayon packet is ` 16.15
The price of 3 crayon pockets is ` 16.15 × 3 = ` 48.45
Ria bought 3 crayon packets of the price ` 48.45.
So, Ria had to pay ` 48.45.

c. Total money was given to some friends = ` 1250.00
Each friend got = ` 250
Number of friends = 1250 ÷ 250
= 5 friends
So, 5 friends got the money.

```
    5
250)1250
 −1250
     0
```

d. The cost of a postal stamp = ` 0.75
The cost of 50 postal stamps = ` 0.75 × 50
= ` 37.50
So, total cost of 50 postal stamps is ` 37.5

```
 0.75
×  50
37.50
```

e. The cost of 25 packets of balloons = ` 300
The cost of 1 packet of balloon = ` 300 ÷ 25
= ` 12
So, the cost of each packet of balloons is ` 12.

$$25\overline{)300}\quad 12,\ -25,\ 50,\ -50,\ 0$$

Higher Order Thinking skills

Ans. 4 coins of each value ` (20 + 8 + 2) = ` 30

Exercise 13.4

1. Read the bills to find the total amount and the money left over.

Ans. a.

S. No.	Item	Quantity	Per kg (`)	Cost (`)
(i)	Pulse	1 kg	95.00	**95.00**
(ii)	Salt	$\frac{1}{2}$ kg	14.50	**7.25**
(iii)	Sugar	1 kg	40.00	**40.00**
(iv)	Coffee Powder	$\frac{1}{4}$ kg	24.00	**6.00**
			Total =	**`148.25**

b.

S. No.	Item	Quantity	Per kg	Cost
(i)	Pulse	$\frac{1}{2}$ kg	95.00	**19.00**
(ii)	Salt	2 kg	14.50	**172.00**
			Total =	` **191.00**

Money left over = ` **(200 – 191)**
= `9

c.

S. No.	Item	Quantity	Rate	Cost
(i)	Comb	1	12.75	**12.75**
(ii)	Ribbon	2 m	5.00	**10.00**
(iii)	Clips	6	10.50	**63.00**
(iv)	Hair pins	2	7.00	**14.00**
			Total = `	**99.75**

2. Solve :

a. Karan has ` 139
The cost of a book is ` 197.75
The money that Karan needs to buy book = ` (197.75 – 139.0)
= ` 58.75
So Karan needs ` 58.75 to buy ` 58.75

b. The cost of apples = ` 22.75
The shopkeeper Returned = ` 27.25.

She gave him money = ` (22.75 + 27.25) = ` 50.00
So, Kiran gave shopkeeper ` 50.

PLAY TIME

Make a bill for the following purchases made by Mrs Gautam at a grocery shop. also. Calculate the amount she gets back if she pays `1000.

Ans.

Item	Quantity	Cost per unit	Total Cost
Sugar	3 kg	`38.25	`114.75
Snacks	2	`28.75	`57.50
Flour	5 kg	`22.50	`112.50
Dal	1 kg	`88.00	`88.00
Rice	3 kg	`45.50	`136.50
		Grand Total =	`509.25

So, Mrs Gautam get back = `(1000 – 509.25) = `490.75

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

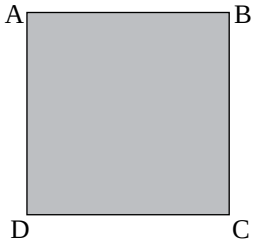
Ans. 1. a. 2. b. 3. a.

Perimeter and Area

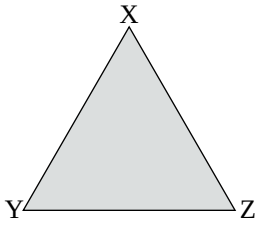
Let's Review

Measure the size of the sides and also find perimeter :

Ans.



AB = **4 cm** BC = **4 cm**
CD = **4 cm** DA = **4 cm**
Perimeter **16 cm**



XY = **4 cm** YZ = **4 cm**
ZX = **4 cm**
Perimeter **12 cm**

Think And Do

Find the perimeter of each figure :

Ans. 1. 20 cm 2. 22 cm 3. 24 cm 4. 22 cm

Exercise 14.1

1. Find the perimeter of the following :

Ans. a. Perimeter = 8 + 8 + 8 + 8 = **32 cm**
b. Perimeter = 2 (20 + 40) = 2 × 60 = **120 cm**
c. Perimeter = 4 × 18 = **72 cm**

d. Perimeter = 2 (10 + 5) = 2 × 15 = **30 m**
e. Perimeter = 18 + 18 + 12 + 20 + 12 = **80 cm**
f. Perimeter = 8cm + 12 cm + 18 cm = **38 cm**

2. Find the perimeter of each figure. The side of each small square is 1 cm.

Ans. a. Perimeter = 3 + 2 + 2 + 1 + 3 + 2 + 2 + 5 = **20 cm**
b. Perimeter = 3 + 1 + 1 + 1 + 1 + 2 + 2 + 1 + 1 + 1 + 2 + 2 = **18 cm**
c. Perimeter = 3 + 1 + 3 + 2 + 6 + 3 = **18 cm**
d. Perimeter = 2 + 1 + 2 + 1 + 1 + 1 + 2 + 1 + 1 + 2 = **14 cm**
e. Perimeter = 3 + 1 + 1 + 2 + 1 + 1 + 3 + 1 + 1 + 2 + 1 + 1 = **18 cm**
f. Perimeter = 3 + 1 + 1 + 4 + 2 + 5 = **16 cm**

3. Find the perimeter of the following figures :

Ans. a. Perimeter = 8 + 6 + 4 + 4 + 6 = **28 cm**
b. Perimeter = 6 × 3 = **18 cm**
c. Perimeter = 4 + 5 + 7 + 3 = **19 cm**

Exercise 14.2

1. Find the perimeter of a rectangle whose :

Ans. Perimeter of a rectangle = 2 (length l + breadth b)
a. length = 24 cm, breadth = **17 cm**
\ Perimeter P = 2 (l + b) = 2 (24 + 17) = 2 × 41 = **82 cm**.
b. length = 42 m, breadth = 20 m
Perimeter P = 2 (l + b) = 2 (42 + 20) = 2 × 62 = **124 m**
c. length = 36 cm, breadth = 15 cm
Perimter P = 2 (l + b) = 2 (36 + 15) = 2 × 51 = **102 cm**
d. length = 18 m, breadth = 9 m
Perimeter P = 2 (l + b) = 2 (18 + 9) = 2 × 27 = **54 m**

2. Find the perimeter of a square each of whose side is :

Ans. Peimeter of a square P = 4 × side a
a. Side a = 14 cm
\ Peimeter P = 4 × a = 4 × 14 = **56 cm**
b. Side a = 35 cm
\ Peimeter P = 4 × a = 4 × 35 = **140 cm**
c. Side a = 17 m
\ Peimeter P = 4 × a = 4 × 17 = **68 m**
d. Side a = 42 m
Peimeter P = 4 × 42 = **168 m**

3. Solve :

Ans. a. Length of a rectangular park (l) = 15 m and breadth (b) = 8 m
\ Peimeter of the park = 2 (l + b) = 2 (15 + 8) = 2 × 23 = 46 m
Peimeter rum 46 m in 1 round around the park.
So, the distance he runs in 5 round = 46 × 5 = 230 m = 230 × 100 cm = 23000 cm
So, he runs everyday **23000 cm**.

b. Side of a square painting = 30 cm

\ Perimeter of painting = 4 × 30 = 120 cm = 1 m 20 cm.

So, the length of the frame of painting is **1 m 20 cm**.

c. Length of rectangular football court (l) = 24 m

breadth (b) of the court = 20 m

\ Perimeter p = 2 (l + b) = 2 (24 + 20) = 2 × 44 = **88 m**

d. Length of rectangular field (l) = 18 m

breadth of rectangular field (b) = 12 m

\ Perimeter of the field (p) = 2 (l + b) = 2 (18 + 12) = 2 × 30 = 60 m

So, **60 m** length of the fence needed.

Exercise 14.3

Find the area and perimeter of these painting. The side of each square is 1 cm.

Ans. a. Perimeter = 2 (l + b) = 2 (8 + 6) = 2 × 14 = 28 cm

Area = l × b = 8 × 6 = 48 sq. cm

b. Perimeter = 2 (l + b) = 2 (6 + 8) = 2 × 14 = 28 cm

Area = l × b = 6 × 8 = 48 sq. cm

c. Perimeter = 2 (l + b) = 2 (5 + 6) = 2 × 11 = 22 cm

Area = l × b = 5 × 6 = 30 sq. cm

d. Perimeter = 2 (l + b) = 2 (5 + 7) = 2 × 12 = 24 cm

Area = l × b = 5 × 7 = 35 sq. cm

e. Perimeter = 2 (l + b) = 2 (8 + 6) = 2 × 14 = 28 cm

Area = l × b = 8 × 6 = 48 sq. cm

f. Perimeter = 2 (l + b) = 2 (4 + 6) = 2 × 10 = 20 cm

Area = l × b = 4 × 6 = 24 sq. cm

2. Which of these fruits will occupy the highest area?

Figure b will occupy the highest area.

PLAY TIME

Ans. Grand Parent's

Bed Room = 14 Units

Wash room = 6 Units

Study Room = 6 Units

Kids Room = 6 Units

Kitchen = 12 Units

Drawing Room = 18 Units

Bed room (Parents) = 15 Units

Dining Room = 15 Units

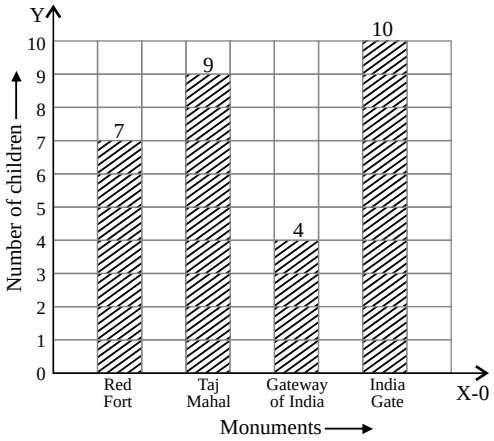
MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. b. 3. b. 4. a. 5. a. 6. a. 7. c. 8. b.

Let's Review

A. The table shows the number of children who have visited various monuments. Make a bar graph to show the information and answer the following questions :



Ans. 1. India Gate 2. Gateway of India

Exercise 15.1

1. The marks obtained by Rohan in different subjects in unit test are given below. Represent the given information with the help of a pictograph.

Ans. Use 1 ◯ = 10 marks and 1 ⌓ = 5 marks

Name of Subject	Marks obtained
Hindi	◯ ◯ ◯
English	◯ ◯ ◯ ◯
Maths	◯ ◯ ◯ ◯ ⌓
Science	◯ ◯

2. The following information is about the number of students in classes from 1 to V.

Ans. Use 1 ☺ = 5 students

Class ↓	Number of Students →
I	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺

II	
III	
IV	
V	

a. Class 1 has the maximum number of students.
b. Class iii has the minimum number of students.
c. 20 students are more in class i than class iv.
d. Total number of students is 190 in all classes.

3. Read the following bar graph. It shows the number of shells collected by five friends from seashare in Goa.

Ans. Now, answer the following questions :

a. Kinjal collected the maximum number of shells.
b. 180 shells were collected by Reshma and Kinjal together.
C. Aakrti collected the least number of shells.
d. 270 shells were collected by five friends in all.

4. Members of a childrens club were asked to name their favourite tourist spot. Their choices are given below :

Ans.

Tourist spot	Tally Mark	Number of Children
Shimla	|||	3
Goa	𝍸||	6
Darjeeling	||||	4
Nainital	||||	4

a. Goa is the most favourite tourist spot.
b. Shimla is the least favourite tourist spot.
c. 6 students like Goa.

Exercise 15.2

1. a. 15 students eat fruits in Class I.
20 students eat fruits in Class II.
10 students eat fruits in Class III.
5 students eat fruits in Class IV.
25 students eat fruits in Class V.
b. Maximum students of Class V eat fruits.
c. Minimum students of class IV eat fruits.
d. 75 students were surveyed in all.

2. The bar graph given below shows the number of children like different types of fruits observe the bar graph and answer the following questions.

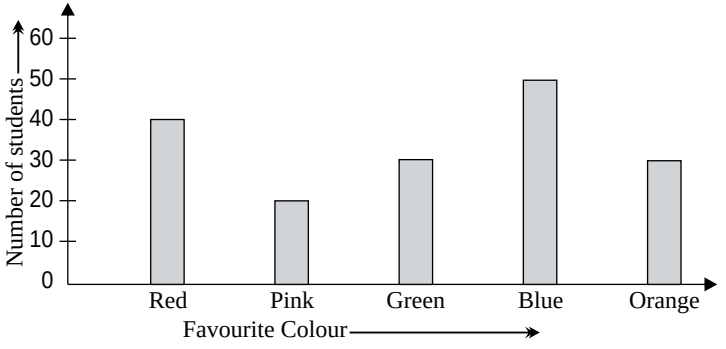
Ans. a. Guava is most liked by children.

b. Orange is least liked by the children.

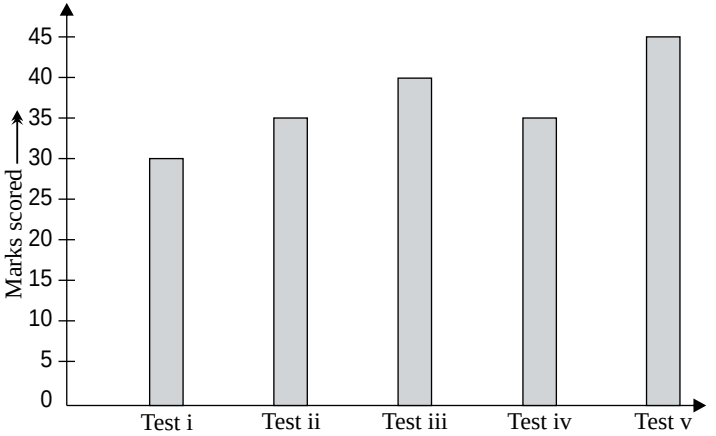
c. 20 children like apple.

d. 73 children depicted in the bar graph.

3. a.



b.



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. c.

Number System

Let's Review

Solve the crossword puzzle :

Ans.

1. 4	5	6	2. 8	7		3. 9	
0			7			9	4. 1
5. 6	3	2	0	5		9	0
8			6. 6	5	4	9	0
7. 9	9	8	7	6		9	0
8. 9	0	0	0	0		9	0

Exercise 1.1

1. Put commas to separate the periods and write the number names.

Ans.

	Number	Numbers with commas	Number Name
a.	6623081	66,23,081	Sixty-six lakh twenty three thousand eighty-one.
b.	90130104	9,01,30,104	Nine Crore one lakh thirty thousand one hundred four.
c.	198765432	19,87,65,432	Nineteen crore eighty-seven lakh sixty five thousand four hundred thirty two.
d.	900000000	90,00,00,000	Ninety crore.

2. Write numbers for the given number names.

Ans. a. 32,52,52,581 b. 7,07,08,056 c. 70,70,70,707
d. 42,05,00,000 e. 9,09,09,009 f. 52,40,504
g. 40,27,02,600

3. Find the place value of coloured digits in the following.

Ans.

	Number	Place Value of	Place Value
a.	8,35,125	5	5,000
b.	36,5694307	6	6,00,00,000
c.	6,82,44212	8	80,00,000
d.	6,05,35,765	0	0

e.	14,07,05,421	7	7,00,000
f.	9,06,25,179	5	5,000

4. Write the expanded form of the following numbers.

Ans. a. 95,56,473 = 90,00,000 + 5,00,000 + 50,000 + 6,000 + 400 + 70 + 3

b. 6,35,17,981 = 6,00,00,000 + 30,00,000 + 5,00,000 + 10,000 + 7000 + 900 + 80 + 1

c. 48,82,189 = 40,00,000 + 8,00,000 + 80,000 + 2,000 + 100 + 80 + 9

d. 81,12,633 = 80,00,000 + 1,00,000 + 10,000 + 2,000 + 600 + 30 + 3

e. 16,78,45,631 = 10,00,00,000 + 6,00,00,000 + 70,00,000 + 800,000 + 40,000 + 5,000 + 600 + 30 + 1

f. 28,35,17,893 = 20,00,00,000 + 8,00,00,000 + 30,00,000 + 5,00,000 + 10,000 + 7,000 + 800 + 90 + 3

5. Write the following numbers in short form.

Ans.

	Short Form		**Short Form**
a.	77,53,047	b.	59,15,468
c.	3,76,54,329	d.	20,40,20,704
e.	9,80,40,203	f.	10,20,30,405

Exercise 1.2

1. Write each of the following numbers in words using International Place Value system.

Ans. a. Two million five hundred thirty-five thousand seven hundred sixty eight.

b. Six million three hundred thousand six hundred forty-nine.

c. Ninety-four million five hundred thousand one hundred seventy-nine.

d. Sixty-seven million two hundred fifty-six thousand one hundred eighty-eight.

e. Four hundred twenty three million four hundred fifty three thousand five hundred thirty-six.

f. Two hundred fifty six million five hundred forty-five thousand one hundred ninety-eight.

g. Three million eight hundred fifty-six thousand nine hundred eighty-nine.

h. Five hundred thirty four million nine hundred thiry-eight thousand one hundred twenty-five.

2. Write the following in figures.

Ans. a. 4,743,142 b. 7,547,505 c. 50,054,530

d. 22,240,783 e. 105,004,999

3. Fill in the blanks.

Ans. a. 100 lakhs = **10** millions.

b. 1 million = **10** lakhs.

c. 10 millions = **1** crore.

d. 10 crores = **100** millions.

4. Write 'T' for true and 'F' for false :

Ans. a. T b. F c. F d. T

Higher Order Thinking skills

Ans. 10 watches

Exercise 1.3

1. Compare each pair of numbers. Put >, < or = in the .

Ans. a. 25,434 < 52,434 b. 69,621,312 < 69,621,418
c. 9,756,215 < 9,756,319 d. 10,00,000 > 9,99,998

2. Arrange the following numbers in ascending order.

Ans. a. 23,413 < 32,432 < 34,341 < 3,22,431
b. 38,96,349 < 48,96,348 < 68,96,348 < 88,96,349
c. 9,34,398 < 96,64,398 < 4,39,86,666 < 9,66,64,398
d. 38,54,798 < 3,85,47,986 < 38,54,79,850 < 38,54,79,860

3. Arrange the following numbers in descending order.

Ans. a. 14,15,004 > 4,10,001 > 40,000 > 14,004
b. 7,89,43,025 > 7,89,40,325 > 7,89,04,325 > 7,80,94,325
c. 5783,42,100 > 47,83,42100 > 5,78,34,210 > 57,83,421
d. 34,56,78,912 > 34,56,78,901 > 23,45,67,891 > 12,34,56,789

Exercise 1.4

1. Write the smallest and greatest number formed by given digits.

Ans.

S.No.	Number	Smallest Number	Greatest Number
a.	6, 5, 3, 8, 9	35,689	98,653
b.	1, 0, 2, 5, 7, 8	1,02,578	8,75,210
c.	4, 6, 2, 9, 8, 7	2,46,789	9,87,642
d.	5, 7, 0, 1, 9, 4	1,04,579	9,75,410
e.	5, 6, 7, 8, 0, 1, 2, 3, 4	10,23,45,678	87,65,43,210

2. Round off the given numbers to the nearest 10, 100 and 1000.

Ans.

S.No.	Number	Nearest 10	Nearest 100	Nearest 1000
a.	5,143	5,140	5,100	5,000
b.	4,17,504	4,17,500	4,17,500	4,18,000
c.	5,26,933	5,26,930	5,26,900	5,27,000
d.	35,895	35,900	35,900	36,000
e.	59,10,417	59,10,420	59,10,400	59,10,000

3. Round the numbers to the nearest ten thousand.

Ans. a. 40,000 b. 90,000 c. 50,000
d. 80,000 e. 60,000

4. Round the numbers to the nearest lakh.

Ans. a. 4,00,000 b. 9,00,000 c. 6,00,000
d. 2,00,000 e. 2,00,000

Exercise 1.5

1. Write the following as Roman numerals :

Ans. a. CLXIII b. CCX c. LIX
d. CCCXXXIV e. CDLXVII f. CXXXII

g. CCLXXXIX h. DLXXIX i. MXXXVIII
j. MCCLVI

2. Write the following as Hindu-Arabic numerals :

Ans. a. 110 b. 162 c. 190 d. 742
e. 1525 f. 513 g. 44 h. 222
i. 282 j. 135

3. Compare the following Roman numerals and use >, < or = :

Ans. a. < b. > c. > d. = e. < f. >

4. Write the answers in Roman numerals.

Ans. a. LXIII b. LXCVII c. LXI

5. Match the Roman numerals to their corresponding Hindu-Arabic numerals.

Ans.

Column A	Column B
MCMXCIX	1350
CMXLIV	1999
MCCCL	596
MCDXLIX	944
DXCVI	1979
MCMLXXIX	1449

Think And Do

Fill in the box with suitable Roman numerals.

Ans. a. XVII b. XXI c. CCXLIX
d. LXI e. XXVII f. CLXXVI

PLAY TIME

Ans. 1 2 3 4 5 6 7
M E R C U R Y

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. b. 3. c. 4. c. 5. b. 6. a. 7. a.
8. b. 9. b.

Addition and Subtraction

Let's Review

At the Book Fair

Read the statements about the book fair and solve :

Ans. 1. 1790 + 1325 = 3115 people.
2. Required number of more books = 4594 – 3745 = 849

Exercise 2.1

1. Add the following :

Ans. a.

	TL	L	TTh	Th	H	T	O
			(1)	(1)	(1)	(1)	
	4	0	0	4	9	3	5
+	3	3	5	5	3	6	5
	7	3	6	0	3	0	0

b.

	TL	L	TTh	Th	H	T	O
				(1)		(1)	(1)
	3	1	4	0	7	2	4
+	1	3	5	8	4	5	9
	4	4	9	9	1	8	3

c.

	TL	L	TTh	Th	H	T	O
			(1)	(1)		(1)	
	6	5	0	6	9	3	7
+	1	1	6	7	8	4	6
	7	6	7	4	7	8	3

d.

	TL	L	TTh	Th	H	T	O
	(1)		(1)	(1)	(1)		
	3	4	6	7	9	3	2
+	2	6	0	4	7	8	2
	6	0	7	2	7	1	4

e.

	C	TL	L	TTh	Th	H	T	O
			(1)	(1)		(1)	(1)	
	3	4	2	2	2	0	3	7
+	1	3	0	9	8	8	3	4
	4	7	3	2	0	8	7	1

f.

	C	TL	TTh	Th	H	T	O	O
		(1)	(1)	(1)	(1)			
	2	4	7	3	6	4	9	2
+	4	0	9	7	3	7	8	2
	6	5	7	1	0	2	7	4

2. Find the sum of the following numbers.

Ans. a. 16,71,461 + 22,63,502
= 39,34,963

	TL	L	TTh	Th	H	T	O
		(1)					
	1	6	7	1	4	6	1
+	2	2	6	3	5	0	2
	3	9	3	4	9	6	3

b. 60,78,006 + 5,736
= 60,83,742

	TL	L	TTh	Th	H	T	O
			(1)			(1)	
	6	0	7	8	0	0	6
+				5	7	3	6
	6	0	8	3	7	4	2

c. 27,60,548 + 10,81,531
= 38,42,079

	TL	L	TTh	Th	H	T	O
		(1)		(1)			
	2	7	6	0	5	4	8
+	1	0	8	1	5	3	1
	3	8	4	2	0	7	9

d. 4,83,275 + 13,54,036
+ 65,838 = 19,03,149

	TL	L	TTh	Th	H	T	O
		(2)	(1)	(1)	(1)	(1)	
		4	8	3	2	7	5
	1	3	5	4	0	3	6
+			6	5	8	3	8
	1	9	0	3	1	4	9

e. 16,51,068 + 2,34,002
+ 6,317 = 18,91,387

	TL	L	TTh	Th	H	T	O
			(1)			(1)	
	1	6	5	1	0	6	8
		2	3	4	0	0	2
+				6	3	1	7
	1	8	9	1	3	8	7

f. 18,37,003 + 5,26,308
= 23,63,311

	TL	L	TTh	Th	H	T	O
	(1)		(1)			(1)	
	1	8	3	7	0	0	3
+		5	2	6	3	0	8
	2	3	6	3	3	1	1

g. 826074 + 70321462
+ 916341 = 7,20,63,877

	C	TL	L	TTh	Th	H	T	O
		(2)		(1)		(1)		
			8	2	6	0	7	4
	7	0	3	2	1	4	6	2
+			9	1	6	3	4	1
	7	2	0	6	3	8	7	7

h. 1834268 + 8,92,163
+ 2,00,65,915 = 2,27,92,346

	C	TL	L	TTh	Th	H	T	O
		(1)	(1)	(1)	(1)	(1)	(1)	(1)
		1	8	3	4	2	6	8
			8	9	2	1	6	3
+	2	0	0	6	5	9	1	5
	2	2	7	9	2	3	4	6

3. Find the missing digits :

Ans. a.

	(1)	(1)		(1)			(1)
	5	3	7	6	8	1	0	4
+	2	7	8	0	5	7	2	6
	8	1	5	7	3	8	3	0

b.

	(1)	(1)				(1)	(1)	
	2	3	7	0	0	4	8	
+	4	9	8	7	6	9	3	
	7	3	5	7	7	4	1	

Exercise 2.2

1. Subtract the following.

Ans. a.

	TL	L	TTh	Th	H	T	O
	(7)	(12)	(12)		(3)	(11)	
	~~8~~	~~3~~	~~2~~	~~9~~	~~4~~	~~1~~	3
–	5	8	3	8	1	5	3
	2	4	9	1	2	6	0

b.

	TL	L	TTh	Th	H	T	O
			(3)	(13)	(11)	(8)	(12)
	7	6	~~4~~	~~4~~	~~1~~	~~9~~	~~2~~
–	4	4	1	7	8	3	9
	3	2	2	6	3	5	3

c.

	TL	L	TTh	Th	H	T	O
		(12)	(5)	(11)	(9)	(14)	
	6	~~2~~	~~6~~	~~2~~	~~0~~	~~4~~	7
–	2	5	0	7	8	6	3
	3	7	5	4	1	8	4

d.

	C	TL	L	TTh	Th	H	T	O
	(8)	(12)	(12)	(4)	(12)			
	~~9~~	~~3~~	~~2~~	~~5~~	~~2~~	9	1	7
–	4	9	4	3	5	8	0	0
	4	3	8	1	7	1	1	7

e.

	C	TL	L	TTh	Th	H	T	O
		(6)	(10)	(4)	(15)	(12)	(10)	
	2	~~7~~	~~0~~	~~5~~	~~6~~	~~3~~	~~0~~	9
–		1	6	0	7	8	2	6
	2	5	4	4	8	4	8	3

f.

	C	TL	L	TTh	Th	H	T	O
	(7)	(9)	(12)	(15)		(15)		(14)
	~~8~~	~~0~~	~~3~~	~~5~~	1	~~6~~	2	~~4~~
–	4	5	7	6	0	8	1	9
	3	4	5	9	0	8	0	5

2. Find the difference.

Ans. a. 96,08,315 – 50,76,531
= 45,31,784

	TL	L	TTh	Th	H	T	O
		(5)	(10)	(7)	(12)	(11)	
	9	6	~~0~~	~~8~~	~~3~~	~~1~~	5
–	5	0	7	6	5	3	1
	4	5	3	1	7	8	4

b. 32,64,105 – 11,27,186
= 21,36,919

	TL	L	TTh	Th	H	T	O
			(5)	(13)	(10)	(9)	(15)
	3	2	6	4	1	0	5
–	1	1	2	7	1	8	6
	2	1	3	6	9	1	9

c. 87,93,184 – 20,00,000
= 67,93,184

	TL	L	TTh	Th	H	T	O
	8	7	9	3	1	8	4
–	2	0	0	0	0	0	0
	6	7	9	3	1	8	4

d. 36,63,905 – 10,78,999
= 25,84,906

	TL	L	TTh	Th	H	T	O
		(5)	(15)	(12)	(18)	(9)	(15)
	3	~~6~~	~~6~~	~~3~~	~~9~~	~~0~~	~~5~~
–	1	0	7	8	9	9	9
	2	5	8	4	9	0	6

e. 55,75,279 – 10,08,591
= 45,66,688

	TL	L	TTh	Th	H	T	O
			(6)	(14)	(11)	(17)	
	5	5	7	5	2	7	9
–	1	0	0	8	5	9	1
	4	5	6	6	6	8	8

f. 98,05,000 – 67,86,584
= 30,18,416

	TL	L	TTh	Th	H	T	O
		(7)	(9)	(14)	(9)	(9)	(10)
	9	~~8~~	~~0~~	~~5~~	~~0~~	~~0~~	~~0~~
–	6	7	8	6	5	8	4
	3	0	1	8	4	1	6

g. 8,24,56,841 – 2,20,50,118
= 6,04,06,723

	C	TL	L	TTh	Th	H	T	O
							(3)	(11)
	8	2	4	5	6	8	4	1
–	2	2	0	5	0	1	1	8
	6	0	4	0	6	7	2	3

h. 17,50,73,475 – 3,35,07,500
= 14,15,65,975

	TC	C	TL	L	TTh	Th	H	T	O
			(4)	(10)	(6)	(12)	(14)		
	1	7	5	~~0~~	~~7~~	~~3~~	4	7	5
–		3	3	5	0	7	5	0	0
	1	4	1	5	6	5	9	7	5

i. 4,67,40,518 – 1,32,28,005
= 3,35,12,513

	C	TL	L	TTh	Th	H	T	O
				(3)	(10)			
	4	6	7	~~4~~	~~0~~	5	1	8
–	1	3	2	2	8	0	0	5
	3	3	5	1	2	5	1	3

j. 3,78,52,903 – 2,63,84,640
= 1,14,68,263

	C	TL	L	TTh	Th	H	T	O
			(7)	(14)	(12)	(8)	(10)	
	3	7	8	5	2	9	0	3
–	2	6	3	8	4	6	4	0
	1	1	4	6	8	2	6	3

k. 4,17,43,183 – 34,05,632
= 3,83,37,551

	C	TL	L	TTh	Th	H	T	O
	(3)	(11)		(3)	(12)	(11)		
	4	1	7	4	3	1	8	3
–		3	4	0	5	6	3	2
	3	8	3	3	7	5	5	1

l. 5,16,38,603 – 3,12,76,384
= 2,03,62,219

	C	TL	L	TTh	Th	H	T	O
			(5)	(13)		(5)	(9)	(13)
	5	1	~~6~~	~~3~~	8	~~6~~	~~0~~	~~3~~
–	3	1	2	7	6	3	8	4
	2	0	3	6	2	2	1	9

3. Find the missing digits :

Ans. a.

	(5)	9	(8)	6	(3)	4	2
–	3	(7)	5	(2)	1	(4)	0
	2	2	3	4	2	0	(2)

b.

	6	9	(1)	(9)	6	(3)	9	6
–	(5)	4	2	(3)	0	4	9	2
	1	4	9	6	(5)	9	0	4

Exercise 2.3

1. Subtract and check with addition :

Ans. a.

	Th	H	T	O
	8	9	7	5
–	3	5	9	8
	5	3	7	7

		Th	H	T	O
	(1)	(1)			
		5	3	7	7
+		3	5	9	8
		8	9	7	5

b.

TL	L	TTh	Th	H	T	O
6	9	4	9	2	5	6
− 9	8	7	6	7	9	
5	9	6	1	5	7	7

(1)	(1)		(1)	(1)	(1)	
TL	L	TTh	Th	H	T	O
5	9	6	1	5	7	7
+ 9	8	7	6	7	9	
9	4	9	2	5	6	

2. Arrange in columns and subtract the following. Check your answer :

Ans. a.

TL	L	TTh	Th	H	T	O
			(7)	(10)	(18)	(10)
7	8	2	8	1	9	0
− 5	6	1	7	2	9	3
2	2	1	0	8	9	7

Checking

			(1)	(1)	(1)	
2	2	1	0	8	9	7
+ 5	6	1	7	2	9	3
7	8	2	8	1	9	0

b.

C	TL	L	TTh	Th	H	T	O
(5)	(12)		(4)	(16)			
~~6~~	~~2~~	4	~~5~~	~~6~~	1	8	4
− 3	6	2	1	8	1	4	4
2	6	2	3	8	0	4	0

	(1)			(1)				
2	6	2	3	8	0	4	0	
+ 3	6	2	1	8	1	4	4	
6	2	4	5	6	1	8	4	

c.

C	TL	L	TTh	Th	H	T	O
	(7)	(11)	(6)	(12)	(10)		
5	8	1	7	3	0	5	5
− 3	1	8	5	7	5	5	0
2	6	3	1	5	5	0	5

C	TL	L	TTh	Th	H	T	O
	(1)		(1)	(1)			
2	6	3	1	5	5	0	5
+ 3	1	8	5	7	5	5	0
5	8	1	7	3	0	5	5

d.

TL	L	TTh	Th	H	T	O
		(7)	(9)	(13)		
5	9	8	0	3	5	0
− 4	0	6	7	5	3	0
1	9	1	2	8	2	0

			(1)	(1)			
1	9	1	2	8	2	0	
+ 4	0	6	7	5	3	0	
5	9	8	0	3	5	0	

e.

C	TL	L	TTh	Th	H	T	O
	(7)	(11)	(6)	(12)	(10)		
2	7	0	5	6	7	3	0
−	5	7	1	8	2	9	0
2	1	3	3	8	4	4	0

C	TL	L	TTh	Th	H	T	O
	(1)		(1)			(1)	
	2	1	3	3	8	4	0
+	5	7	1	8	2	9	0
2	7	0	5	6	7	3	0

f.

C	TL	L	TTh	Th	H	T	O
		(6)	(10)				
8	6	7	0	4	8	1	5
− 5	2	3	8	2	5	0	0
3	4	3	2	2	3	1	5

C	TL	L	TTh	Th	H	T	O
		(1)					
3	4	3	2	2	3	1	5
+ 5	2	3	8	2	5	0	0
8	6	7	0	4	8	1	5

g.

TL	L	TTh	Th	H	T	O
4	3	4	7	9	7	0
− 3	1	2	3	4	5	0
1	2	2	4	5	2	0

1	2	2	4	5	2	0
+ 3	1	2	3	4	5	0
4	3	4	7	9	7	0

h.

	TL	L	TTh	Th	H	T	O
	9	8	3	9	1	8	4
−	2	1	0	0	0	0	0
	7	7	3	9	1	8	4

	7	7	3	9	1	8	4
+	2	1	0	0	0	0	0
	9	8	3	9	1	8	4

Think And Do

1.

	TL	L	TTh	Th	H	T	O
			(4)	(13)	(12)	(10)	(10)
Greatest number =	9	8	~~5~~	~~4~~	~~3~~	~~1~~	~~0~~
Smallest number = −	1	0	3	4	5	8	9
Difference =	8	8	1	9	7	2	1

2.

	C	TL	L	TTh	Th	H	T	O
				(4)	(13)	(11)	(10)	(10)
Greatest number =	9	8	6	~~5~~	~~4~~	~~2~~	~~1~~	~~0~~
Smallest number = −	1	0	2	4	5	6	8	9
Difference =	8	8	4	0	8	5	2	1

Exercise 2.4

Solve these story sums :

Ans. 1. Number of males = 27,51,650
Number of females = + 18,42,725
Total population of the town = 45,94,375
So, the total population the town is 45,94,375

	(1)		(1)				
	2	7	5	1	6	5	0
+	1	8	4	2	7	2	5
	4	5	9	4	3	7	5

2. Production of rice = 43,45,400 kg
More production of wheat = + 2,36,465 kg than rice
\ Production of wheat = 45,81,865 kg
So the production of wheat is 45,81,865 kg

		(1)					
	4	3	4	5	4	0	0
+		2	3	6	4	6	5
	4	5	8	1	8	6	5

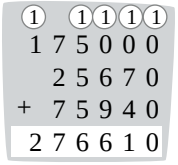
3. Milk was supplied to one depot = 4,83,947 litres
Milk was supplied to another depot = 34,567 litres
Total supply of milk 5,18,514 litres
Production of milk = 38,75,678 litres
Milk was left in the dairy = (38,75,678 – 5,18,514) litres
= 33,57,164 litres
So, 33,57,164 litres milk was left in the dairy.

	(1)	(1)	(1)	(1)	(1)		
	4	8	3	9	4	7	
+		3	4	5	6	7	
	5	1	8	5	1	4	

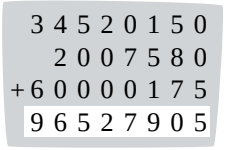
4. Length of first piece of wire = 2,12,345 m
Length of second piece of wire = 45,678 m
Total length of both pieces = 2,58,023 m
Total length of long wire was = 93,24,567 m
Length of cut off wire = – 2,58,023 m
\ Length of the remaing wire = 90,66,544 m
So, 90,66,544 m of electric wire was left.

		(1)	(1)	(1)	(1)		
	2	1	2	3	4	5	
+		4	5	6	7	8	
	2	5	8	0	2	3	

5. Cost of a refrigerator = ` 1,75,000
Cost of a washing machine = ` 25,670
Cost of a LED TV = + ` 75,940
Total cost of these three items = ` 2,76,610
Mr. Sinha had = ` 8,85,750
He spent money = – ` 2,76,610
Money is left = ` 6,09,140
So, ` 6,09,140 are left with Mr Sinha.



6. The toys are manufactured in 2017 =
The toys are manufactured in 2018 =
The toys are manufactured in 2019 =
Total number of toys are manufactured 9,65,27,905
So, the company manufactured 9,65,27,905 toys in all.



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. b. 4. a.

Multiplication and Division

3

Let's Review

1. 30 students of Little Stars School are visiting the fish aquarium.

Ans. The enterance ticket costs ` 140 for each child.
How much does school pay for all the students?
Cost of 1 enterance ticket = ` **140**.
Total number of children = **30**.
Total cost for all children = ` **140** × **30** = ` **4200**.

2. Complete the division grid.

Ans.

÷	**60**	**144**	**300**	**240**	**1200**	**3600**
2	30	72	150	120	600	1800
3	20	48	100	80	400	1200
4	15	36	75	60	300	900
6	10	24	50	40	200	600

Exercise 3.1

1. Fill in the blanks using the multiplication facts.

Ans. a. 9990 × **1** = 9990
b. 1 × 8288 = **8288**
c. 82728 × 0 = **0**
d. 6945 × **0** = 0
e. 7125 × 4212 = 4212 × **7125**
f. **8175** × 8943 = 8943 × 8175
g. 49 × (50 × 8) = (49 × 50) × **8** = **50** × (49 × 8)

2. Multiply the following.

Ans. a. 6359 × 3000 = **19077000** b. 861 × 900 = **774900**

c. 2369 × 50 = **118450** d. 178 × 80 = **14240**

e. 12629 × 600 = **7577400** f. 9297 × 5000 = **46485000**

3. Multiply :

Ans. a.

$$\begin{array}{r} 67245 \\ \times\ 1234 \\ \hline 268980 \\ 2017350 \\ 13449000 \\ +\ 67245000 \\ \hline 82980330 \end{array}$$

\ 67245 × 1234
= 8,298,0,330

b.

$$\begin{array}{r} 92421 \\ \times\ 2121 \\ \hline 92421 \\ 1848420 \\ 9242100 \\ +\ 184842000 \\ \hline 196024941 \end{array}$$

\ 92421 × 2121
= 19,60,24,941

c.

$$\begin{array}{r} 24105 \\ \times\ 1505 \\ \hline 120525 \\ 00000 \\ 12052500 \\ 24105000 \\ \hline 36278025 \end{array}$$

\ 24105 × 1505
= 3,62,78,025

d.

$$\begin{array}{r} 54321 \\ \times\ 1675 \\ \hline 271605 \\ 3802470 \\ 32592600 \\ 54321000 \\ \hline 90987675 \end{array}$$

\ 54321 × 1675
= 9,09,87,675

e.

$$\begin{array}{r} 84710 \\ \times\ 4231 \\ \hline 84710 \\ 2541300 \\ 16942000 \\ 338840000 \\ \hline 358408010 \end{array}$$

\ 84710 × 4231
= 35,84,08,010

f.

$$\begin{array}{r} 25671 \\ \times\ 6215 \\ \hline 128355 \\ 256710 \\ 5134200 \\ +\ 154026000 \\ \hline 159545265 \end{array}$$

\ 25671 × 6215
= 15,95,45,265

g.

$$\begin{array}{r} 9234 \\ \times\ 325 \\ \hline 46170 \\ 184680 \\ 2770200 \\ \hline 3001050 \end{array}$$

\ 9234 × 325
= 30,01,050

h.

$$\begin{array}{r} 10654 \\ \times\ 875 \\ \hline 53270 \\ 745780 \\ 8523200 \\ \hline 9322250 \end{array}$$

\ 10654 × 875
= 93,22,250

i.

$$\begin{array}{r} 19434 \\ \times\ 1562 \\ \hline 38868 \\ 1166040 \\ 9717000 \\ 19434000 \\ \hline 30355908 \end{array}$$

\ 19434 × 1562
= 30355908

j.

$$\begin{array}{r} 11267 \\ \times\ 243 \\ \hline 33801 \\ 450680 \\ 2253400 \\ \hline 2737881 \end{array}$$

\ 11267 × 243
= 27,37,881

k.

$$\begin{array}{r} 15675 \\ \times\ 923 \\ \hline 47025 \\ 313500 \\ +\ 14107500 \\ \hline 14468025 \end{array}$$

\ 15675 × 923
= 1,44,68,025

l.

$$\begin{array}{r} 12376 \\ \times\ 476 \\ \hline 74256 \\ 866320 \\ +\ 4950400 \\ \hline 5890976 \end{array}$$

\ 12376 × 476
= 58,90,976

m.

$$\begin{array}{r} 355321 \\ \times\ 243 \\ \hline 1065963 \\ 14212840 \\ +\ 71064200 \\ \hline 86343003 \end{array}$$

\ 355321 × 243
= 8,63,43,003

n.

$$\begin{array}{r} 2135 \\ \times\ 135 \\ \hline 10675 \\ 64050 \\ +\ 213500 \\ \hline 288225 \end{array}$$

\ 2135 × 135
= 2,88,225

o.

$$\begin{array}{r} 7304 \\ \times\ 125 \\ \hline 36520 \\ 146080 \\ 730400 \\ \hline 913000 \end{array}$$

\ 7304 × 125
= 9,13,000

4. Multiply :

Ans. a.

$$\begin{array}{r} 25412 \\ \times\ 203 \\ \hline 76236 \\ 00000 \\ +\ 5082400 \\ \hline 5158636 \end{array}$$

\ 25412 × 203
= 5158636

b.

$$\begin{array}{r} 56789 \\ \times\ 135 \\ \hline 283945 \\ +\ 1703670 \\ 5678900 \\ \hline 7666515 \end{array}$$

\ 56789 × 135
= 7666515

c.

```
      2 0 5 4 5
        × 7 7 5
    1 0 2 7 2 5
+ 1 4 3 8 1 5 0
  1 4 3 8 1 5 0 0
  1 5 9 2 2 3 7 5
```

\ 20545 × 775
= 1,59,22,375

d.

```
          5 0 2 3 5
        × 3 1 0 5
      2 5 1 1 7 5
        0 0 0 0 0
    5 0 2 3 5 0 0
1 5 0 7 0 5 0 0 0
1 5 5 9 7 9 6 7 5
```

\ 50235 × 3105
= 15,59,79,675

e.

```
        3 0 1 5 5
      × 1 2 4 8
      2 4 1 2 4 0
    1 2 0 6 2 0 0
    6 0 3 1 0 0 0
  3 0 1 5 5 0 0 0
  3 7 6 3 3 4 4 0
```

\ 30155 × 1248
= 3,76,33,440

f.

```
      1 3 6 5 4
        × 2 7 5
      6 8 2 7 0
  + 9 5 5 7 8 0
  2 7 3 0 8 0 0
  3 7 5 4 8 5 0
```

\ 13654 × 275
= 37,54,850

5. Find the following products without actual multiplication :

Ans. a. 964310 × 9999 = 964310 × (10000 – 1)
= 9643100000 – 964310
= 9,64,21,35,690
\ 964310 × 9999 = 963345690

```
          (2)(10)(9)(9)(10)
9 6 4 3 1 0 0 0 0 0
–         9 6 4 3 1 0
9 6 4 2 1 3 5 6 9 0
```

b. 481964 × 99 = 481964 × (100 – 1)
= 48196400 – 481964 = 47714436

```
(7)(11) (5)(13)(9)(10)
4 8 1 9 6 4 0 0
–   4 8 1 9 6 4
4 7 7 1 4 4 3 6
```

c. 23968 × 999 = 23968 × (1000 – 1)
= 23968000 – 23968 = 23944032

```
        (7)(9)(9)(10)
2 3 9 6 8 0 0 0
–     2 3 9 6 8
2 3 9 4 4 0 3 2
```

Exercise 3.2

Divide and check your answer :

Ans. a.

```
      2132
76)162097
   – 152
      100
     – 76
      249
    – 228
      217
    – 152
       65
```

Checking :
Dividend = 162097, Quotient = 2132
Divisor = 76, Remainder = 65
Dividend = Quotient × Divisor + Remainder
= 2132 × 76 + 65
= 162032 + 65 = 162097 = dividend
So, answer is correct.

b.

```
      1190
36 ) 42872
   − 36
     68
    − 36
     327
   − 324
      32
     − 0
      32
```

Quotient = 1190, Divisor = 36
Remainder = 32, Dividend = 42872
Checking :
Dividend = Q × D + R
= 1190 × 36 + 32
= 42840 + 32 = 42872
So, answer is correct.

c.

```
      195
37 ) 7239
   − 37
     353
    − 333
      209
   − 185
      24
```

Checking
Quotient × Divisor + Remainder
Quotient = 195, Divisor = 37
Remainder = 24, dividend = 7239
Dividend = 195 × 37 + 24
= 7215 + 24
= 7239
so, answer is correct.

d.

```
      473
68 ) 32188
   − 272
     498
    − 476
      228
   − 204
      24
```

Quotient 473, Divisor = 68
Remainder = 24, Dividend = 32188
Checking :
Dividend = Q × D + R
= 473 × 68 + 24
= 32164 + 24
= 32188
So, answer is correct.

e.

```
      224
115 ) 25766
   − 230
     276
    − 230
      466
   − 460
      6
```

Quotient 224, Divisor = 115
Remainder = 6, Dividend = 25766
Checking :
Dividend = Q × D + R
= 224 × 115 + 6
= 25760 + 6
= 25760 + 6 = 25766
So, answer is correct.

f.

```
      250
215 ) 53962
   − 430
     1096
    − 1075
      212
     − 0
      212
```

Quotient 250, Divisor = 215
Remainder = 212, Dividend = 53962
Checking :
Dividend = Q × D + R
= 250 × 215 + 212
= 53750 + 212 = 53962
So, answer is correct.

g.

```
      162
453 ) 73609
    − 453
      2830
    − 2718
      1129
    −  906
       223
```

Quotient 162, Dividend = 493
Remainder = 223, Dividend = 73609
Checking :
Dividend = Q × D + R
= 162 × 453 + 223
= 73386 + 223 = 73609
So, answer is correct.

h.

```
      79
533 ) 42135
    − 3731
      4825
    − 4797
       28
```

Quotient = 79, divisor = 533
Remainder = 28, Dividend = 42135
Checking :
Dividend = Q × D + R
= 79 × 533 + 28
= 42107 + 28 = 42135
So, answer is correct.

i.

```
      2000
65 ) 130027
   − 130
     002
     − 0
       27
     − 0
       27
```

Quotient = 2000, Divisor = 65
Remainder = 27, Dividend = 130027
Checking
Dividend = Q × D + R
= 2000 × 65 + 27 = 130027
So, answer is correct.

j.

```
       501
1055 ) 528717
     − 5275
       1217
     − 1055
        162
```

Quotient = 501, Divisor = 1055
Remainder = 162, Dividend = 528717
Checking :
Dividend = Q × D + R
= 501 × 1055 + 162 = 528555 + 162
= 528717
So, answer is correct.

k.

```
        1
5838 ) 9219
     − 5838
       3381
```

Quotient 1, Divisor = 5838
Remainder = 3381, Dividend = 9219
Checking :
Dividend = Quotient × Divisor + Remainder
= 1 × 5838 + 3381 = 5838 + 3381 = 9219
So, answer is correct.

l.

```
       180
2045 ) 369875
     − 2045
       16537
     − 16360
        1775
       − 0
        1775
```

Quotient = 180, Divisor = 2045
Remainder = 1775, Dividend = 369879
Checking :
Dividend = Q × D + R
= 180 × 2045 + 1775
= 368100 + 1775
= 369875
So, answer is correct.

m.
```
      1890
438 ) 828175
    − 438
      3901
    − 3504
       3977
     − 3942
        355
     −    0
        355
```
Quotient = 1890, divisor = 438
Remainder = 355, dividend = 828175
dividend = 828175
Checking :
Dividend = Q × D × R
= 1890 × 438 + 355
= 827820 + 355 = 828175
So, answer is correct.

n.
```
       1703
4035 ) 6872879
     − 4035
       28378
     − 28245
        1337
      −  0
        13379
      − 12105
         1274
```
Quotient = 1703, Divisor = 4035
Remainder = 1274, Dividend = 6872879
Checking :
Dividend = Q × D + R
= 1703 × 4035 + 1274
= 6871605 + 1274
= 6872879
So, answer is correct.

o.
```
       130
1234 ) 160945
     − 1234
       3754
     − 3702
        525
      −  0
        525
```
Quotient = 130, Divisor = 1234
Remainder = 525, Dividend = 160945
Checking :
Dividend = 130 × 1234 + 525
= 160420 = 160945
So, answer is correct.

P.
```
       1457
3135 ) 4567890
     − 3135
       14328
     − 12540
        17889
     − 15675
         22140
      − 21945
          195
```
Quotient = 1457, Divisor = 3135
Remainder = 195, Dividend = 4567890
Checking :
Dividend = Q × D + R
= 1457 × 3135 + 195
= 456765 + 195 = 4567890
So, answer is correct.

Exercise 3.3

1. Fill in the blanks.

Ans. a. 45451 ÷ 1 = **45451**
b. 29410 ÷ 29410 = **1**
c. **0** ÷ 295 = 0
d. 0 ÷ 63935 = **0**

2. Complete the table.

Ans.

Number	Quotient	Remainder
a. 28973 ÷ 10	2897	3
b. 8164 ÷ 10	816	4

c. 57987 ÷ 100	579	87
d. 18275 ÷ 100	182	75
e. 723456 ÷ 1000	723	456
f. 612345 ÷ 1000	612	345

3. Find :

Ans. a. Quotient = 22, Divisor = 35
and Remainder = 14
\ Number (Dividend) = Quotient × Divisor + Remainder
Number = 22 × 35 + 14 = 770 + 14 = 784
So, number is **784**

b. Dividend = 3699, Quotient = 231, Remainder = 3
Dividend = Quotient × Divisor + Remainder
3699 = 231 × Divisor + 3
\ 3699 – 3 = 231 × Divisor
\ 231 × Divisor = 3699 – 3 = 3696

\ Divisor = $\frac{3696}{231}$ = 16

So, Divisor is **16**

```
      16
231)3696
  -231
   1386
  -1386
      0
```

Exercise 3.4

1. The cost of 1set of books = ` 1459
\ The cost of 375 sets of books = ` 1459 × 375
= ` 547125
So, the school paid ` 5,47,125 for sets of book.

```
   1459
  × 375
   7295
 102130
+437700
 547125
```

2. The cost of 125 washing machines = ` 31,94,375
\ The cost of 1 washing machine = ` 31,94,375 ÷ 125
= ` 25,555

```
      25555
125)3194375
   -250
     694
    -625
      687
     -625
       625
      -625
         0
```

So, the cost of one washing machine is ` **25,555**.

3. 1 year = 12 months
\ 2 years = 2 × 12 = 24 months
∵ Mr Khan deposits in one month = ` 48,290
\ He will deposit in 24 months = ` 48,290 × 24
= ` 11,58,960
So, he will have ` **11,58,960** in his bank account.

```
  48290
  × 24
 193160
 965800
1158960
```

4. Number of trees in 1 row = 208
Number of rows = 1958
Total number of trees altogether = 1958 × 208 = 407264

$$\begin{array}{r} 1\,9\,5\,8 \\ \times\ 2\,0\,8 \\ \hline 1\,5\,6\,6\,4 \\ 0\,0\,0\,0 \\ 3\,9\,1\,6\,0\,0 \\ \hline 4\,0\,7\,2\,6\,4 \end{array}$$

So, there are **407264 trees** in Mr Justin's orchard.

5. Total number of apples = 6,48,550
Number of apples in 1 box = 1526
\ Number of boxes are required = 6,48,550 ÷ 1526 = 425 boxes

$$\begin{array}{r} 425 \\ 1526\overline{)\,648550} \\ -\,6104 \\ \hline 3815 \\ -\,3052 \\ \hline 7630 \\ -\,7630 \\ \hline 0 \end{array}$$

So, **425 boxes** are required to pack 6,48,550 apples.

6. Total seats in stadium = 52,650
Number of seats in 1 row = 975
\ Number of rows = 52,650 ÷ 975 = 54 rows
So, there are 54 rows of seats in the stadium.

$$\begin{array}{r} 54 \\ 975\overline{)\,52650} \\ -\,4875 \\ \hline 3900 \\ -\,3900 \\ \hline 0 \end{array}$$

7. 1 book has = 236 pages
\ 1135 books will have = 236 × 1135
= 2,67,860 pages
So, **2,67,860 pages** were printed for 1135 books in all.

$$\begin{array}{r} 1\,1\,3\,5 \\ \times\ 2\,3\,6 \\ \hline 6\,8\,1\,0 \\ 3\,4\,0\,5\,0 \\ 2\,2\,7\,0\,0\,0 \\ \hline 2\,6\,7\,8\,6\,0 \end{array}$$

8. The cost of 216 tables = ` 3,35,232
\ The cost of 1 table = ` 3,35,232 ÷ 216 = ` 1552

$$\begin{array}{r} 1552 \\ 216\overline{)\,335232} \\ -\,216 \\ \hline 1192 \\ -\,1080 \\ \hline 1123 \\ -\,1080 \\ \hline 432 \\ -\,432 \\ \hline 0 \end{array}$$

So, the cost of one table is ` 1552.

9. 1 week = 7 days
21 weeks = 21 × 7 = 147 days
The factory manufactured in 147 days = 9,36,243 toys
The factory manufactured in 1 day = 9,36,243 ÷ 147
= 6369 toys.

So, the factory manufactured **6369 toys** in one day.

$$\begin{array}{r} 6369 \\ 147\overline{)936243} \\ -882 \\ \hline 542 \\ -441 \\ \hline 1014 \\ -882 \\ \hline 1323 \\ -1323 \\ \hline 0 \end{array}$$

10. One number = 552
Product of two numbers = 2,69,928
The other number = 2,69,928 ÷ 552
= 489

So, the other number is 489.

$$\begin{array}{r} 489 \\ 552\overline{)269928} \\ -2208 \\ \hline 4912 \\ -4416 \\ \hline 4968 \\ -4968 \\ \hline 0 \end{array}$$

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. a. 4. b. 5. b. 6. a. 7. b.
8. a. 9. b. 10. c.

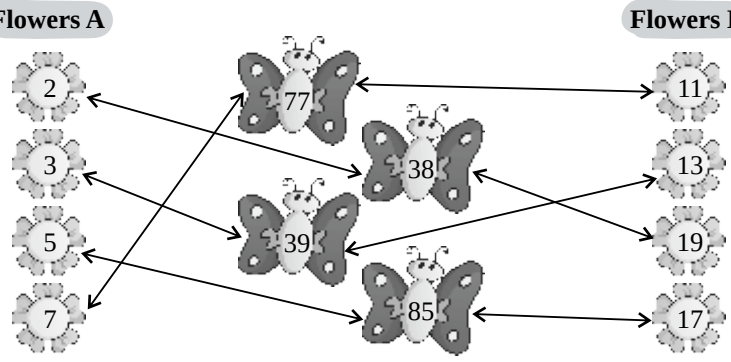
Multiples and Factors

4

Let's Review

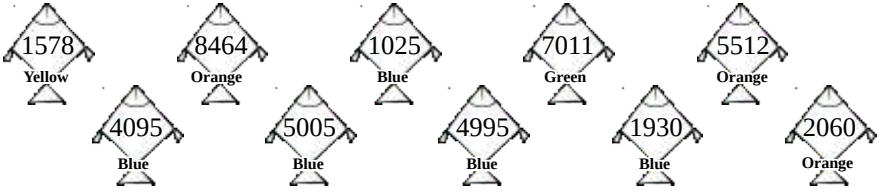
1. The numbers in flowers A and flowers B are the factors of the number in Butterfly. Match the flowers with correct butterfly :

Ans.



2. Colour the following number of kites by using given colour code :

Ans.



Think And Do

Write the

Ans. 1. 4, 8, 12. 2. 7, 21, 35, 49, 63. 3. 30
4. 9 5. 5, 15

Think And Do

Fill in the blanks.

Ans. 1. **1** is a factor of all numbers.
2. 2 is a factor of all **even** numbers.
3. The smallest factor of 14 is **1**.
4. 6 is a factor of 18 as 18 can be divided by **6** exactly.
5. All numbers except 1 have at least **2** factors.

Exercise 4.1

1. Test whether the following numbers are divisible by 2, 3, 5 and 10.

Ans. a. In 140, the digit at the ones place is 0. So 140 **is divisible by 2, 5 and 10**.
140 Þ 1 + 4 + 0 = 5
5 is not divisible by 3. So 140 is not divisible by 3.

b. In 3650, the digit at the ones place is 0. So 3650 **is divisible by 2, 5 and 10**.
1650 Þ 3 + 6 + 5 + 0 = 14
14 is not divisible by 3. So 3650 is not divisible by 3.

c. In 56,982 the digit at the ones place is 2. So 56,982 **is divisible by 2 but not divisible by 5 and 10**.
56,982 Þ 5 + 6 + 9 + 8 + 2 = 30
30 is divisible by 3. So, 56982 is **divisible by 3**.

d. In 83,001, the digit at ones place is 1. So it is not **divisible by 2, 5 and 10**.
83,001 Þ 8 + 3 + 0 + 0 + 1 = 12
12 is divisible by 3. So it is divisible by 3.

e. In 37,100 the digit at ones place is 0. So 37,100 is **divisible by 2, 5 and 10**.
37,100 Þ 3 + 7 + 1 + 0 + 0 = 11
11 is not divisible by 3. So 37,100 is **not divisible by 3**.

f. In 69,313, the digit at ones place is 3. So 69,313 **is not divisible by 2, 5 and 10**.
69313 Þ 6 + 9 + 3 + 1 + 3 = 22.
22 is not divisible by 3. So 69,313 is **not divisible by 3**.

2. Test whether the following numbers are divisible by 6.

Ans. a. In 5070, the digit at ones place is 0. So it divisible by 2.
5070 Þ 5 + 0 + 7 + 0 = 12 is visible by 3.
So it is **divisible** by 3. So it is **divisible by 6**.

b. In 12,460 the digit at ones place is 0. So it is divisible by 2.
12460 Þ 1 + 2 + 4 + 6 + 0 = 13. 13 is not divisible by 3 so 12460 is **not divisible** by 3 and also 6.

c. 30654
In 30,654, the digit at ones place is 4. So it is **divisible** by 2.
30654 Þ 3 + 0 + 6 + 5 + 4 = 18. 18 is divisible by 3
So, 30,654 is **divisible** by 3. So it is **divisible** by 2 and 3, so it is also **divisible by 6**.

d. 324368
In 3,24,368, the digit at the ones place is 8. So it is divisible by 2.
324368 Þ 3 + 2 + 4 + 3 + 6 + 8 = 26. 26 is not divisible by 3. So 324368 is **not divisible** by 6

e. In 75,642, the digit at the ones place is 2. So 75,642 is divisible by 2.
75,642 Þ 7 + 5 + 6 + 4 + 2 = 24. 24 is divisible by 3.
So, 75,642 is divisible by 3.
So 75,642 is **divisible by** 2 and 3 so is also **divisible by 6**.

f. In 56,523, the digit at ones place is 3.
So it not divisible by 2.
Hence 56,523 is **not divisible by 6**.

3. Test whether the following numbers are divisible by 4 and 8.

Ans. a. The number formed by the last two digits of 35056 is 56 which is divisible by 4.
So, 35056 is divisible by 4.
The number formed by the last three digits of 35056 is 056 which is divisible by 8.
So, 35056 is divisible by 8

b. The number formed by the last two digits of 810524 is 24 which divisible by 4.
So, 810524 is divisible by 4
The number formed by last three digits of 810524 is 524 which is not divisible by 8.
So, 810524 is not **divisible by 8**.

c. The number formed by last two digits of 13408 is 08 which is divisible by 4.
So, 13408 is **divisible by 4**.
The number formed by last three digits of 13408 is 408 which is **divisible by 8**.
So, 13408 is divisible by 8.

d. The number formed by last two digits of 125032 is 32 which is divisible by 4.
So 125032 is **divisible by 4**.
The number formed by last three digits of 125032 is 032 which is divisible by 8.
So, 125032 is divisible by 8.

e. Since the last two digit of 2627000 are zeros, it is divisible by 4.
Since the last three digits of 2627000 are zeros, it is divisible by 8.

f. The number formed by last two digits of 9876214 is 14 which is not **divisible by 4**.

So 9876214 is not divisible by 4.
the number formed by last three digits of 9876214 is 214 which is not divisible by 8.
So 9876214 is not **divisible by 8**.

4. Test which of the following numbers are divisible by 9.

Ans. a. 64 Þ 6 + 4 = 10 the sum of digit of 64 is 10 which is **not divisible by 9**.
So, 64 is not divisible by 9.

b. 8108 Þ 8 + 1 + 0 + 8 = 17 the sum of digits of 8108 is 17 which is **not divisible by 9**.
So, 8108 is not divisible by 9.

c. 174331 Þ 1 + 7 + 4 + 3 + 3 + 1 = 19 the sum of digits of 174331 is 19 which is not divisible by 9.
So, 174331 is **not divisible by 9**.

d. 72432 Þ 7 + 2 + 4 + 3 + 2 = 18, the sum of digit of 72432 is 18 which is divisible by 9.
So, 72432 is **divisible by 9**.

e. 432981 Þ 4 + 3 + 2 + 9 + 8 + 1 = 27, the sum of digits of 432 981 is 27 which is divisible by 9.
So, 432981 is **divisible by 9**.

f. 2872364 Þ 2 + 8 + 7 + 2 + 3 + 6 + 4 = 32, the sum of digits of 2872364 is 32 which is not divisible by 9.
So, 2872364 **is not divisible by 9**.

5. Test of the following numbers are divisible by 11.

Ans. a. In 3663, sum of first alternate digits = 3 + 6 = 9
Sum of second alternate digit = 6 + 3 = 9
Difference between the sum of alternate digits of 3663 = 9 – 9 = 0
Difference between the sum of alternate digits is zero. So 3663 **is divisible by 11**.

b. In 57950, sum of the first alternate digits = 5 + 9 + 0 = 14
Sum of the second alternate digits = 7 + 5 = 12
Difference between the sum of alternate digits = 14 – 12 = 2
Difference between the sum of alternate digits is not zero or not a multiple of 11.
So, 57950 **is not divisible by 11**

c. In 247269
Sum of first alternate digits = 2 + 7 + 6 = 15
Sum of second alternate digits = 4 + 2 + 9 = 15
Difference between alternate digits is zero
So, 247269 **is divisible by 11**.

d. In 84927,
Sum of first alternate digits = 8 + 9 + 7 = 24
Sum of second alternate digits = 4 + 2 = 6
Difference between the alternate digits = 24 – 6 = 18
Difference between the alternate digits is not zero nor the multiple of 11.

So, 84,927 is not divisible by 11.

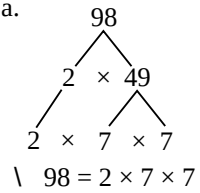
e. In 3330976
Sum of the first alternate digits = 3 + 3 + 9 + 6 = 21
Sum of the second alternate digits = 3 + 0 + 7 = 10
Difference between the sum of alternate digits = 21 – 10 = 11
So, 3330976 **is divisible by 11**.

f. In 437194,
Sum of the first alternate digits = 4 + 7 + 9 = 20
Sum of the second alternate digits = 3 + 1 + 4 = 8
Difference between the sum of alternate digits = 20 – 8 = 12
Which is not zero not multiple of 11.
So, 437194 is **not divisible by 11**.

Exercise 4.2

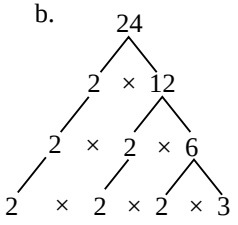
1. Make a factor tree for the following numbers.

Ans. a.



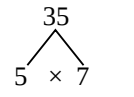
\ 98 = 2 × 7 × 7

b.



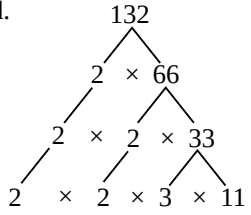
\ 24 = 2 × 2 × 2 × 3

c.



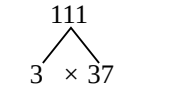
\ 35 = 5 × 7

d.



\ 132 = 2 × 2 × 3 × 11

e.



\ 111 = 3 × 37

2. Write the following numbers as the product of their prime factors. Use division method.

Ans. a.

2	156
2	78
3	39
13	13
	1

\ 156 = 2 × 2 × 3 × 13

b.

2	500
2	250
5	125
5	25
5	5
	1

\ 500 = 2 × 2 × 5 × 5 × 5

c.

2	750
3	375
5	125
5	25
5	5
	1

\ 750 = 2 × 3 × 5 × 5 × 5

d.

2	864
2	432
2	216
2	108
2	54
3	27
3	9
3	3
	1

\ 864 = 2 × 2 × 2 × 2 × 2 × 3 × 3 × 3

e.

2	242
11	121
11	11
	1

\ 242 = 2 × 11 × 11

3. Which of the following pairs are co-prime?

Ans. a. Factor of 24 = 1, 2, 3, 4, 6, 8, 12, 24
Factor of 39 = 1, 3, 13, 39
Common factor of 24 and 39 = 1, 3 (two)
So, 24 and 38 **are not co-prime numbers**.

b. Factor of 16 = 1, 2, 4, 8, 16
Factor of 21 = 1, 3, 7, 21
Common factor of 16 and 21 is 1 (only)
So 16 and 21 **are co-prime numbers**.

c. Factor of 11 = 1, 11
Factor of 35 = 1, 5, 7, 35
Common factor of 11 and 35 = 1 (only one)
So, 11 and 35 **are co-prime numbers**.

d. Factor of 55 = 1, 5, 11, 55
Factor of 57 = 1, 57
Common factor of 55 and 57 = 1 (only one)
So 55 and 57 **are co-prime numbers**.

e. 46 and 108
Factor of 46 = 1, 2, 23
Factor of 108 = 1, 2, 3, 4, 6, 9, 12, 18, 27, 36, 54, 108
Common factor of 46 and 108 = 1, 2 (two)
So 46 and 108 **are not co-prime numbers**.

4. Sort the prime, composite and all pairs of co-prime numbers from the table.

Ans. In the table,
Prime numbers – 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43 and 47.
Composite numbers – 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35, 36, 38, 39, 40, 42, 44, 45, 46, 48 and 50
Pairs of co-prime numbers – 1 and all numbers other than 1, 2 and all odd numbers, 3 and other than multiples of 3, 4 and all odd numbers, 5 and other than multiples of 5 and so on.

Exercise 4.3

1. Find the HCF by prime factorization method :

Ans. a. Factors of 28 = 2 × 2 × 7
Factors of 35 = 5 × 1 × 7
HCF of 28 and 35 = **7**

b. Factors of 15 = 3 × 5
Factors of 30 = 3 × 5 × 2
HCF of 15 and 30 = 3 × 5 = **15**

c. Factors of 27 = 3 × 3 × 3
Factors of 54 = 3 × 3 × 3 × 2
HCF of 27 and 54 = 3 × 3 × 3 = **27**

d. Factors of 24 = 2 × 2 × 2 × 3
Factors of 32 = 2 × 2 × 2 × 2 × 2
Factors of 56 = 2 × 2 × 2 × 7
HCF of 24, 32 and 56 = 2 × 2 × 2 = **8**

e. Factors of 99 = 3 × 3 × 11
Factors of 33 = 3 × 11
HCF of 99 and 33 = 3 × 11 = **33**

f. Factors of 20 = 2 × 2 × 5
Factors of 50 = 2 × 5 × 5
Factors of 90 = 2 × 3 × 3 × 5
HCF of 20, 50 and 90 = 2 × 5 = 10

g. Factors of 64 = 2 × 2 × 2 × 2 × 2 × 2
Factors of 74 = 2 × 37
Factors of 84 = 2 × 2 × 3 × 7
HCF of 64, 74 and 84 = 2

h. Factors of 31 = 1 × 31
Factors of 37 = 1 × 37
Factors of 33 = 1 × 3 × 11
\ HCF of 31, 37 and 33 = 1

i. Factors of 96 = 2 × 2 × 2 × 3 × 2 × 2
Factors of 48 = 2 × 2 × 2 × 3 × 2
Factors of 120 = 2 × 2 × 2 × 3 × 5
HCF of 96, 48 and 120 = 2 × 2 × 2 × 3 = 24

j. Factors of 45 = 3 × 3 × 5
Factors of 65 = 13 × 5
Factors of 75 = 3 × 5 × 5
\ HCF of 45, 65 and 75 = 5

2. Find the HCF using the long division method.

Ans. a.
$$\begin{array}{r} 18\overline{)22}(1 \\ -18 \\ \hline 4\overline{)18}(\\ -16 \\ \hline 2\overline{)4}(2 \\ -4 \\ \hline 0 \end{array}$$

\ HCF of 22 and 18 = **2**

b.
$$\begin{array}{r} 15\overline{)30}(2 \\ -30 \\ \hline 0 \end{array}$$

\ HCF of 15 and 30 = **15**

c.
$$\begin{array}{r} 10\overline{)18}(1 \\ -10 \\ \hline 8\overline{)10}(1 \\ -8 \\ \hline 2\overline{)8}(4 \\ -8 \\ \hline 0 \end{array}$$

∴ HCF of 18 and 10 = **2**

d.
$$\begin{array}{r} 27\overline{)30}(1 \\ -27 \\ \hline 3\overline{)27}(9 \\ -27 \\ \hline 0 \end{array}$$

∴ HCF of 27 and 30 = **3**

e.
$$\begin{array}{r} 28\overline{)56}(2 \\ -56 \\ \hline 0 \end{array}$$

∴ HCF of 28 and 56 = **28**

f.
$$\begin{array}{r} 28\overline{)35}(1 \\ -28 \\ \hline 7\overline{)28}(4 \\ -28 \\ \hline 0 \end{array}$$

∴ HCF of 28 and 35 = 7

g.
$$\begin{array}{r} 64\overline{)80}(1 \\ -64 \\ \hline 16\overline{)64}(4 \\ -64 \\ \hline 0 \end{array}$$

∴ HCF of 64 and 80 = 16

h.
$$\begin{array}{r} 25\overline{)36}(1 \\ -25 \\ \hline 11\overline{)25}(2 \\ -22 \\ \hline 3\overline{)11}(2 \\ -9 \\ \hline 3\overline{)11}(3 \\ -9 \\ \hline 2\overline{)3}(1 \\ -2 \\ \hline 1\overline{)2}(2 \\ -2 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 1\overline{)80}(80 \\ -8 \\ \hline 00 \\ -0 \\ \hline 0 \end{array}$$

∴ HCF of 25, 36 and 80 = 1

i.
$$\begin{array}{r} 15\overline{)30}(2 \\ -30 \\ \hline 0 \\ \hline 15\overline{)105}(7 \\ -105 \\ \hline 0 \end{array}$$

∴ HCF of 15, 30 and105 = **15**

j.
$$\begin{array}{r} 60\overline{)100}(1 \\ -60 \\ \hline 40\overline{)60}(1 \\ -40 \\ \hline 20\overline{)40}(2 \\ -4 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 20\overline{)125}(66 \\ -120 \\ \hline 5\overline{)20}(4 \\ -20 \\ \hline 0 \end{array}$$

∴ HCF of 60, 100 and 125 = 5

3. a. When we divide 163 and 243 by the required number we get a remainder 3.
It means that the required number is HCF of 163 – 3 = 160 and 243 – 3 = 240.
HCF = 80
So required largest number is 80.

$$\begin{array}{r} 160\overline{)240}(1 \\ -160 \\ \hline 80\overline{)16}(2 \\ -16 \\ \hline 0 \end{array}$$

b. The capacity of the largest container = HCF of 16 and 24.
HCF of 16 and 24 = 8
So, the capacity of the largest container is 8 L.

$$\begin{array}{r} 16\overline{)24}(1 \\ -16 \\ \hline 8\overline{)16}(2 \\ -16 \\ \hline 0 \end{array}$$

c. Maximum length of each piece of ropes = HCF of 18 and 24.
HCF of 18 and 24 = 6
\ Maximum length of each piece = **6 m**.

$$\begin{array}{r} 18\overline{)24}(1 \\ -16 \\ \hline 6\overline{)18}(3 \\ -18 \\ \hline 0 \end{array}$$

d. Maximum number of flower pots that can be arrange in a single row will be HCF of 36, 48 and 60.
HCF of 36, 48 and 60 = 12
So, 12 flower pots can be arranged in a single row.

$$\begin{array}{r} 12\overline{)60}(5 \\ -60 \\ \hline 0 \end{array} \qquad \begin{array}{r} 36\overline{)48}(1 \\ -36 \\ \hline 12\overline{)36}(3 \\ -36 \\ \hline 0 \end{array}$$

Exercise 4.4

1. Find the LCM using the prime factorization method.

Ans. a. $12 = 2 \times 2 \times 3$
$15 = 1 \times 1 \times 3 \times 5$
LCM $= 2 \times 2 \times 3 \times 5 =$ **60**

b. $18 = 2 \times 3 \times 3$
$27 = 1 \times 3 \times 3 \times 3$
LCM $= 2 \times 3 \times 3 \times 3 =$ **54**

c. $42 = 2 \times 3 \times 7$
$70 = 2 \times 1 \times 7 \times 5$
LCM $= 2 \times 3 \times 7 \times 5 =$ **210**

d. $40 = 2 \times 2 \times 2 \times 5$
$32 = 2 \times 2 \times 2 \times 1 \times 2 \times 2$
LCM $= 2 \times 2 \times 2 \times 5 \times 2 \times 2 =$ **160**

e. $24 = 2 \times 2 \times 2 \times 3$
$36 = 2 \times 2 \times 1 \times 3 \times 3$
LCM $= 2 \times 2 \times 2 \times 3 \times 3 =$ **72**

f. $12 = 2 \times 2 \times 3$
$15 = 1 \times 1 \times 3 \times 5$
$40 = 2 \times 2 \times 1 \times 5 \times 2$
LCM $= 2 \times 2 \times 3 \times 5 \times 2 =$ **120**

g. $15 = 3 \times 5$
$25 = 1 \times 5 \times 5$
$30 = 3 \times 5 \times 1 \times 2$
LCM $= 3 \times 5 \times 5 \times 2 =$ **150**

h. $20 = 2 \times 2 \times 5$
$30 = 2 \times 1 \times 5 \times 3$
$50 = 2 \times 1 \times 5 \times 1 \times 5$
LCM $= 2 \times 2 \times 5 \times 3 \times 5 =$ **300**

i. $10 = 2 \times 5$
$15 = 1 \times 5 \times 3$
$20 = 2 \times 5 \times 1 \times 2$
LCM $= 2 \times 5 \times 3 \times 2 =$ **60**

j. $30 = 2 \times 3 \times 5$
$45 = 1 \times 3 \times 5 \times 3$
$60 = 2 \times 3 \times 5 \times 1 \times 2$
LCM $= 2 \times 3 \times 5 \times 3 \times 2 =$ **180**

k. $33 = 3 \times 11$
$22 = 1 \times 11 \times 2$
$11 = 1 \times 11 \times 1$
LCM $= 3 \times 11 \times 2 =$ **66**

l. $25 = 5 \times 5$
$50 = 5 \times 5 \times 2$
$70 = 5 \times 1 \times 2 \times 7$
LCM $= 5 \times 5 \times 2 \times 7 =$ **350**

2. Find the LCM by the short division method.

Ans. a.

2	30, 55
3	15, 55
5	5, 55
11	1, 11
	1, 11

LCM $= 2 \times 3 \times 5 \times 11 =$ **330**

b.

2	18, 45
3	9, 45
3	3, 15
5	1, 5
	1, 1

LCM $= 2 \times 3 \times 3 \times 5 =$ **90**

c.

2	20, 65
2	10, 65
5	5, 65
13	1, 13
	1, 1

LCM $= 2 \times 2 \times 5 \times 13 =$ **260**

d.

3	9, 27
3	3, 9
3	1, 3
	1, 1

LCM $= 3 \times 3 \times 3 =$ **27**

e.

2	72, 32
2	36, 16
2	18, 8
2	9, 4
2	9, 2
3	9, 1
3	3, 1
	1, 1

LCM $= 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 =$ **288**

f.

2	12, 20
2	6, 10
3	3, 5
5	1, 5
	1, 1

LCM $= 2 \times 2 \times 3 \times 5 =$ **60**

g.

2	11, 24, 33
2	11, 12, 33
2	11, 6, 33
3	11, 1, 11
11	1, 1, 1

LCM $= 2 \times 2 \times 2 \times 3 \times 11 =$ **264**

h.

2	27, 54, 63
3	27, 27, 63
3	9, 9, 21
3	3, 3, 7
7	1, 1, 7
	1, 1, 1

LCM $= 2 \times 3 \times 3 \times 3 \times 7 =$ **378**

i.

2	10, 15, 25
3	5, 15, 25
5	5, 5, 25
5	1, 1, 5
	1, 1, 1

LCM = 2 × 3 × 5 × 5 = **150**

j.

2	14, 16, 8
2	7, 8, 4
2	7, 4, 2
2	7, 2, 1
7	1, 1, 1

LCM = 2 × 2 × 2 × 2 × 7 = **112**

k.

2	16, 32, 40
2	8, 16, 20
2	4, 8, 10
2	2, 4, 5
2	1, 2, 5
5	1, 1, 5
	1, 1, 1

LCM = 2 × 2 × 2 × 2 × 2 × 5 = **160**

l.

2	21, 14, 35
3	12, 7, 35
7	7, 7, 35
5	1, 1, 5
	1, 1, 1

LCM = 2 × 3 × 7 × 5 = **210**

3. a. The required number will be the LCM of 105, 91 and 130.

3	105, 91, 130
5	35, 91, 130
7	7, 91, 26
2	1, 13, 26
13	1, 13, 13
	1, 1

LCM = 3 × 5 × 7 × 2 × 13 = **2730**
So, the smallest number which is exactly divisible by 105, 91 and 130.

b. The time in seconds with the three bells toll together will be the LCM of 15, 18, 45.
LCM = 2 × 3 × 3 × 5 = 90
90 seconds time with three bells toll together.

2	15, 18, 45
3	15, 9, 45
3	5, 3, 15
5	5, 1, 5
	1, 1, 1

c. The least number that divisible by all numbers from 1 to 10 will be the LCM of 1 to 10.
LCM = 2 × 2 × 2 × 3 × 3 × 5 × 7 = 2520
The least 2520 will be divisible by all numbers from 1 to 10.

2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
2	1, 1, 3, 2, 5, 3, 7, 4, 9, 5
2	1, 1, 3, 1, 5, 3, 7, 2, 9, 5
3	1, 1, 3, 1, 5, 1, 7, 1, 9, 5
3	1, 1, 1, 1, 5, 1, 7, 1, 3, 5
5	1, 1, 1, 1, 5, 1, 7, 1, 1, 5
7	1, 1, 1, 1, 5, 1, 7, 1, 1, 1
	1, 1, 1, 1, 1, 1, 1, 1, 1, 1

d. The least number of marbles will be the LCM of 12, 15 and 20.
LCM = 2 × 2 × 3 × 5 = 60
So, 60 marbles will be the number that piles of 12, 15 and 20 marbles can be made.

2	12, 15, 20
2	6, 15, 10
3	3, 15, 5
5	1, 5, 5
	1, 1

Exercise 4.5

Solve the following.

1. LCM of two numbers = 96
HCF of two number = 8
Ist number = 32
\ Ist number × 2nd = LCM × HCF = 96 × 8

$$\text{2nd number} = \frac{96 \times 8}{\text{Ist number}} = \frac{\cancel{96}^{3} \times 8}{\cancel{32}_{1}} = 24$$

So, other number will be 24.

2. LCM of two numbers = 60
HCF of two numbers = 4
1st number = 20
1st number × 2nd number = LCM × HCF = 60 × 4

$$\text{2nd number} = \frac{60 \times 4}{\text{Ist number}} = \frac{\cancel{60}^{3} \times 4}{\cancel{20}_{1}} = 12$$

So, other number will be 12.

3. Two numbers are co-prime
So, HCF of them = 1
LCM of them = 156
1st number = 13
1st number × 2nd number = LCM × HCF = 156 × 1

$$\text{\ 2nd number} = \frac{156 \times 1}{\text{Ist number}} = \frac{156}{13} = 12$$

So, the other number will be 12.

4. The product of two numbers = 3072
LCM of two numbers = 192
HCF × LCM = Product of two numbers = 3072

$$\text{\ HCF} = \frac{3072}{\text{LCM}} = \frac{3072}{192} = 16$$

So, HCF will be 16.

$$\begin{array}{r} 16 \\ 192\overline{)3072} \\ -\,192 \\ \hline 1152 \\ -\,1152 \\ \hline 0 \end{array}$$

Higher Order Thinking skills

Ans. 1. LCM 144 2. Time will be 4: 54 P.M. 3. 40 years

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. a. 3. b. 4. c. 5. c.

Fractions

5

Let's Review

1. Read the questions and find :

Ans. a. $\frac{9}{\cancel{10}_{1}} \times \cancel{30}^{3} = 9 \times 3 = 27$ friends.

b. $12 - \frac{1}{\cancel{3}_{1}} \times \cancel{12}^{4} = 12 - 4 = 8$ balloons.

c. $\frac{3}{\cancel{4}_{1}} \times \cancel{28}^{7} = 3 \times 7 = 21$ burgers.

Exercise 5.1

1. Classify the following fractions are proper, improper, mixed and unit :

Ans. a. $\frac{1}{9}$ Unit Fraction b. $\frac{17}{21}$ Proper Fraction c. $1\frac{9}{20}$ Mixed Fraction

d. $\frac{45}{21}$ Improper Fraction e. $\frac{65}{56}$ Improper Fraction f. $\frac{4}{5}$ Proper Fraction

2. Convert the following improper fractions into mixed fractions :

Ans. a. $\frac{18}{7} = 2\frac{4}{7}$ b. $\frac{129}{8} = 16\frac{1}{8}$ c. $\frac{49}{13} = 3\frac{10}{13}$

d. $\frac{106}{25} = 4\frac{6}{25}$ e. $\frac{78}{9} = 8\frac{6}{9}$

3. Convert the following mixed fractions into improper fractions :

Ans. a. $4\frac{1}{5} = \frac{4 \times 5 + 1}{5} = \frac{21}{5}$ b. $3\frac{9}{11} = \frac{3 \times 11 + 9}{11} = \frac{42}{11}$

c. $7\frac{3}{4} = \frac{4 \times 7 + 3}{4} = \frac{31}{4}$ d. $9\frac{1}{7} = \frac{7 \times 9 + 1}{7} = \frac{64}{7}$

e. $8\frac{1}{5} = \frac{8 \times 5 + 1}{5} = \frac{41}{5}$

4. Find three equivalent fractions of the following by multiplication.

Ans. a. $\frac{5}{7} = \frac{5 \times 2}{7 \times 2}, \frac{5 \times 3}{7 \times 3}, \frac{5 \times 4}{7 \times 4} = \frac{10}{14}, \frac{15}{21}, \frac{20}{28}$

b. $\frac{6}{7} = \frac{6 \times 2}{7 \times 2}, \frac{6 \times 3}{7 \times 3}, \frac{6 \times 4}{7 \times 4} = \frac{12}{14}, \frac{18}{21}, \frac{24}{28}$

c. $\frac{1}{8} = \frac{1 \times 2}{8 \times 2}, \frac{1 \times 3}{8 \times 3}, \frac{1 \times 4}{8 \times 4} = \frac{2}{16}, \frac{3}{24}, \frac{4}{32}$

d. $\frac{5}{9} = \frac{5 \times 2}{9 \times 2}, \frac{5 \times 3}{9 \times 3}, \frac{5 \times 4}{9 \times 4} = \frac{10}{18}, \frac{15}{27}, \frac{20}{36}$

e. $\frac{2}{5} = \frac{2 \times 2}{5 \times 2}, \frac{2 \times 3}{5 \times 3}, \frac{2 \times 4}{5 \times 4} = \frac{4}{10}, \frac{6}{15}, \frac{8}{20}$

5. Find the equivalent fraction of $\frac{8}{13}$, having :

Ans. a. $\frac{8}{13} = \frac{8 \times 3}{13 \times 3} = \frac{24}{39}$ b. $\frac{8}{13} = \frac{8 \times 5}{13 \times 5} = \frac{40}{65}$ c. $\frac{8}{13} = \frac{8 \times 7}{13 \times 7} = \frac{56}{91}$

6. Fill in the blanks :

Ans. a. Fraction whose value is less than 1 is called **proper** fraction.

b. Fractions with the same denominator are called **like** fractions.

c. If in a fraction, **numerator** is greater than **denominator** then it is an improper fraction.

d. In fraction $\frac{7}{8}$, 7 is the **numerator** and 8 is the **denominator**.

Exercise 5.2

1. Fill in the blanks using <, > or =.

a. $\frac{7}{4} > \frac{3}{5}$ b. $\frac{8}{12} > \frac{17}{27}$ c. $\frac{1}{12} < \frac{5}{7}$ d. $\frac{3}{4} > \frac{2}{3}$

e. $\frac{2}{8} < \frac{3}{5}$ f. $\frac{4}{5} > \frac{3}{4}$ g. $\frac{9}{10} > \frac{7}{8}$ h. $\frac{7}{10} < \frac{3}{4}$

2. Which is greater?

Ans. a. $\frac{7}{8}$ or $\frac{3}{4}$

$= \frac{7}{8}$ or $\frac{3 \times 2}{4 \times 2}$

$= \frac{7}{8}$ or $\frac{6}{8}$

$\therefore \frac{7}{8} > \frac{6}{8}$

$\therefore \frac{7}{8} > \frac{3}{4}$

b. $\frac{3}{4}$ or $\frac{9}{10}$

$= \frac{3 \times 5}{4 \times 5}$ or $\frac{9 \times 2}{10 \times 2}$

$= \frac{7}{8}$ or $\frac{6}{8}$

$= \frac{15}{20} > \frac{18}{20}$

$\therefore \frac{9}{10} > \frac{3}{4}$

c. $\frac{8}{11}$ or $\frac{3}{55}$

$= \frac{8 \times 5}{11 \times 5}$ or $\frac{3}{55}$

$= \frac{40}{55}$ or $\frac{3}{55}$

$\therefore \frac{40}{55} > \frac{3}{55}$

$\frac{8}{11} > \frac{3}{55}$

d. $\frac{4}{5}$ or $\frac{2}{7}$

$= \frac{4 \times 7}{5 \times 7}$ or $\frac{2 \times 5}{7 \times 5}$

$= \frac{28}{35}$ or $\frac{10}{35}$

$\therefore \frac{28}{35} > \frac{10}{35}$

$\therefore \frac{4}{5} > \frac{2}{7}$

e. $\frac{9}{12}$ or $\frac{8}{18}$

$= \frac{9 \times 3}{12 \times 3}$ or $\frac{8 \times 2}{18 \times 2}$

$= \frac{27}{36}$ or $\frac{16}{36}$

$\therefore \frac{27}{36} > \frac{16}{36}$

$= \frac{9}{12} > \frac{8}{18}$

f. $\frac{3}{8}$ or $\frac{9}{15}$

$= \frac{3 \times 15}{8 \times 15}$ or $\frac{2 \times 5}{7 \times 5}$

$= \frac{45}{120}$ or $\frac{72}{120}$

$\therefore \frac{72}{120} > \frac{45}{120}$

$\therefore \frac{9}{15} > \frac{3}{8}$

3. Arrange in ascending order.

Ans. a. $\frac{3}{7}, \frac{12}{7}, \frac{5}{7}, \frac{2}{7}$

$\therefore \frac{2}{7} < \frac{3}{7} < \frac{5}{7} < \frac{12}{7}$

Thus, ascending order is $\frac{2}{7} < \frac{3}{7} < \frac{5}{7} < \frac{12}{7}$

b. $\frac{5}{20}, \frac{3}{5}, \frac{11}{10}, \frac{13}{15}$ (LCM of 20, 5, 10, 15 = 60)

$= \frac{5 \times 3}{20 \times 3}, \frac{3 \times 12}{5 \times 12}, \frac{11 \times 6}{10 \times 6}, \frac{13 \times 4}{15 \times 4}$

$= \frac{15}{60}, \frac{36}{60}, \frac{66}{60}, \frac{52}{60}$

In ascending order $= \frac{15}{60} < \frac{36}{60} < \frac{52}{60} < \frac{66}{60}$

$= \frac{5}{20} < \frac{3}{5} < \frac{13}{15} < \frac{11}{10}$

c. $\frac{3}{8}, \frac{2}{3}, \frac{7}{12}, \frac{1}{4}$

$= \frac{3 \times 3}{8 \times 3}, \frac{2 \times 8}{3 \times 8}, \frac{7 \times 2}{12 \times 2}, \frac{1 \times 6}{4 \times 6}$

$= \frac{9}{24}, \frac{16}{24}, \frac{14}{24}, \frac{6}{24}$

In ascending order

$= \frac{6}{24} < \frac{9}{24} < \frac{14}{24} < \frac{16}{24}$

$= \frac{1}{4} < \frac{3}{8} < \frac{7}{12} < \frac{2}{3}$

d. $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{1}{3}$ (LCM of 2, 3, 4, 3 = 12)

$= \frac{3 \times 3}{8 \times 3}, \frac{2 \times 8}{3 \times 8}, \frac{7 \times 2}{12 \times 2}, \frac{1 \times 6}{4 \times 6}$

$= \frac{6}{12}, \frac{8}{12}, \frac{9}{12}, \frac{4}{12}$

$= \frac{4}{12} < \frac{6}{12} < \frac{8}{12} < \frac{9}{12}$

\ $\frac{1}{3} < \frac{1}{2} < \frac{2}{3} < \frac{3}{4}$

e. $\frac{3}{12}, \frac{7}{8}, \frac{2}{4}, \frac{2}{6}$ (LCM of 12, 8, 4, 6 = 24)

$= \frac{3 \times 2}{12 \times 2}, \frac{7 \times 3}{8 \times 3}, \frac{2 \times 6}{4 \times 6}, \frac{2 \times 4}{6 \times 4}$

$= \frac{6}{24}, \frac{21}{24}, \frac{12}{24}, \frac{8}{24}$

In ascending order

$= \frac{6}{24} < \frac{8}{24} < \frac{12}{24} < \frac{21}{24}$

$= \frac{3}{12} < \frac{2}{6} < \frac{2}{4} < \frac{7}{8}$

f. $\frac{4}{5}, \frac{2}{3}, \frac{1}{2}, \frac{5}{6}, \frac{6}{10}$ (LCM of 5, 3, 2, 6, 10 = 30)

$= \frac{4 \times 6}{5 \times 6}, \frac{2 \times 10}{3 \times 10}, \frac{1 \times 15}{2 \times 15}, \frac{5 \times 5}{6 \times 5}, \frac{6 \times 3}{10 \times 3}$

$= \frac{24}{30}, \frac{20}{30}, \frac{15}{30}, \frac{25}{30}, \frac{18}{30}$

In ascending order

$= \frac{5}{30} < \frac{18}{30} < \frac{20}{30} < \frac{24}{30} < \frac{25}{30}$

$= \frac{1}{2} < \frac{6}{10} < \frac{2}{3} < \frac{4}{5} < \frac{5}{6}$

4. Arrange in descending order.

Ans. a. $\frac{3}{10}, \frac{2}{5}, \frac{7}{15}$ (LCM of 10, 5, 15= 30)

$= \frac{3 \times 3}{10 \times 3}, \frac{2 \times 6}{5 \times 6}, \frac{7 \times 2}{15 \times 2}$

$= \frac{9}{30}, \frac{12}{30}, \frac{14}{30}$

In descending order

$= \frac{14}{30} < \frac{12}{30} < \frac{9}{30}$

$= \frac{7}{15} < \frac{2}{5} < \frac{3}{10}$

b. $\frac{2}{3}, \frac{1}{5}, \frac{1}{2}, \frac{5}{6}$ (LCM of 3, 5, 2, 6 = 30)

$= \frac{2 \times 10}{3 \times 10}, \frac{1 \times 6}{5 \times 6}, \frac{1 \times 15}{2 \times 15}, \frac{5 \times 5}{6 \times 5}$

$= \frac{20}{30}, \frac{6}{30}, \frac{15}{30}, \frac{25}{30}$

In descending order

$= \frac{25}{30} > \frac{20}{30} > \frac{15}{30}$

$= \frac{5}{6} > \frac{2}{3} > \frac{1}{2} > \frac{1}{5}$

c. $\frac{3}{8}, \frac{11}{12}, \frac{15}{16}$ (LCM of 8, 12, 16= 48)

$= \frac{3 \times 6}{8 \times 6}, \frac{11 \times 4}{12 \times 4}, \frac{15 \times 3}{16 \times 3}$

$= \frac{18}{48}, \frac{44}{48}, \frac{45}{48}$

In descending order

$= \frac{48}{48} > \frac{44}{48} > \frac{18}{48}$

$= \frac{15}{16} > \frac{11}{12} > \frac{3}{8}$

d. $\frac{1}{8}, \frac{5}{12}, \frac{2}{6}, \frac{3}{4}$

$= \frac{1 \times 3}{8 \times 3}, \frac{5 \times 2}{12 \times 2}, \frac{2 \times 4}{6 \times 4}, \frac{3 \times 6}{4 \times 6}$

$= \frac{3}{24}, \frac{10}{24}, \frac{8}{24}, \frac{18}{24}$

In descending order $= \frac{18}{24} > \frac{10}{24} > \frac{8}{24} > \frac{3}{24}$

$= \frac{3}{4} > \frac{5}{12} > \frac{2}{6} > \frac{1}{8}$

e. $4\frac{2}{7}, 4\frac{8}{2}, 4\frac{11}{14}, 4\frac{3}{7}$

$= \frac{30}{7}, \frac{16}{2}, \frac{67}{14}, \frac{31}{7}$ (LCM of 7, 2, 14 = 14)

$= \frac{18}{24} > \frac{10}{24} > \frac{8}{24} > \frac{3}{24}$

$= \frac{30 \times 2}{7 \times 2}, \frac{16 \times 7}{2 \times 7}, \frac{67}{14}, \frac{31 \times 2}{7 \times 2}$

In descending order $= \frac{112}{14} > \frac{67}{14} > \frac{62}{14} > \frac{60}{14}$

$4\frac{8}{2} > 4\frac{11}{14} > 4\frac{3}{7} > 4\frac{2}{7}$

f. $\frac{3}{4}, \frac{2}{3}, \frac{5}{8}, \frac{7}{9}, \frac{11}{12}$ (LCM of 4, 3, 8, 9, 12 = 72)

$= \frac{3 \times 18}{4 \times 18}, \frac{2 \times 24}{3 \times 24}, \frac{5 \times 9}{8 \times 9}, \frac{7 \times 8}{9 \times 8}, \frac{11 \times 6}{12 \times 6}$

$= \frac{54}{72}, \frac{48}{72}, \frac{45}{75}, \frac{56}{72}, \frac{66}{72}$

In descending order $= \frac{66}{72} > \frac{56}{72} > \frac{54}{72} > \frac{48}{72} > \frac{45}{72}$

$= \frac{11}{12} > \frac{7}{9} > \frac{3}{4} > \frac{2}{3} > \frac{5}{8}$

Exercise 5.3

1. Add.

Ans. a. $2\frac{1}{10} + 3\frac{4}{5}$

$= \frac{21}{10} + \frac{19}{5}$

$= \frac{21}{10} + \frac{19 \times 2}{5 \times 2}$

$= \frac{21}{10} + \frac{38}{10}$

$= \frac{21 + 38}{10}$

$= \frac{59}{10}$

$= 5\frac{9}{10}$

b. $\frac{9}{20} + \frac{13}{15}$

$= \frac{9 \times 3}{20 \times 3} + \frac{13 \times 4}{15 \times 4}$

$= \frac{27}{60} + \frac{52}{60}$

$= \frac{27 + 52}{60}$

$= \frac{79}{60}$

$= 1\frac{19}{60}$

c. $3\frac{2}{3} + 1\frac{1}{4}$

$= \frac{11}{3} + \frac{5}{4}$ (LCM of 3, 4 = 12)

$= \frac{11 \times 4}{3 \times 4} + \frac{5 \times 3}{4 \times 3}$

$= \frac{44}{12} + \frac{15}{12}$

$= \frac{44 + 15}{12}$

$= \frac{59}{12} = 4\frac{11}{12}$

d. $3 + 1\frac{4}{9} + 2\frac{2}{3}$

$= \frac{3}{1} + \frac{13}{9} + \frac{8}{3}$ (LCM of 1, 9, 3 = 9)

$= \frac{3 \times 9}{1 \times 9} + \frac{13}{9} + \frac{8 \times 3}{3 \times 3}$

$= \frac{27}{9} + \frac{13}{9} + \frac{24}{9}$

$= \frac{27 + 13 + 24}{9}$

$= \frac{64}{9} = 7\frac{1}{9}$

e. $4\frac{4}{9} + \frac{7}{24} + \frac{23}{36}$

$= \frac{40}{9} + \frac{7}{24} + \frac{23}{36}$ (LCM of 9, 24, 36 = 72)

$= \frac{40 \times 8}{9 \times 8} + \frac{7 \times 3}{24 \times 3} + \frac{23 \times 2}{36 \times 2}$

$= \frac{320}{72} + \frac{21}{72} + \frac{46}{72}$

$= \frac{320 + 21 + 46}{72} = \frac{387}{72}$

$= 5\frac{27}{72} = 5\frac{27 \div 9}{72 \div 9} = 5\frac{3}{8}$

f. $1\frac{3}{11} + \frac{2}{5} + \frac{4}{55}$

$= \frac{14}{11} + \frac{2}{5} + \frac{4}{55}$

(LCM of 11, 5, 55 = 55)

$= \frac{14 \times 5}{11 \times 5} + \frac{2 \times 11}{5 \times 11} + \frac{4}{55}$

$= \frac{70}{55} + \frac{22}{55} + \frac{4}{55}$

$= \frac{70 + 22 + 4}{55} = \frac{96}{55} = 1\frac{41}{55}$

2. Subtract :

Ans. a. $10 - \frac{6}{7}$

$= \frac{10}{1} - \frac{6}{7}$

$= \frac{10 \times 7}{1 \times 7} - \frac{6}{7}$

$= \frac{70}{7} - \frac{6}{7}$

$= \frac{70 - 6}{7}$

$= \frac{64}{7} = 9\frac{1}{7}$

b. $2\frac{4}{9} - \frac{5}{12}$

$= \frac{22}{9} - \frac{5}{12}$ (LCM of $9 \times 12 = 36$)

$= \frac{22 \times 4}{9 \times 4} - \frac{5 \times 3}{12 \times 3}$

$= \frac{88}{36} - \frac{15}{36}$

$= \frac{88 - 15}{36} = \frac{73}{36} = 2\frac{1}{36}$

c. $2\frac{13}{36} - 1\frac{5}{9}$

$= \frac{85}{36} - \frac{14}{9}$

(LCM of 36 and 9 = 36)

$= \frac{85}{36} - \frac{14 \times 4}{9 \times 4}$

$= \frac{85}{36} - \frac{56}{36}$

d. $3\frac{4}{7} - \frac{3}{4}$

$= \frac{25}{7} - \frac{3}{4}$

(LCM of 7 and 4 = 28)

$= \frac{25 \times 4}{7 \times 4} - \frac{3 \times 7}{4 \times 7}$

$= \frac{100}{28} - \frac{21}{28}$

$= \frac{85-56}{36} = \frac{29}{36}$

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

$= \frac{21}{5} - \frac{2}{3}$ (LCM of 5, 3 = 15)

$= \frac{21 \times 3}{5 \times 3} - \frac{2 \times 5}{3 \times 5}$

$= \frac{63}{15} - \frac{10}{15}$

$= \frac{63-10}{15} = \frac{53}{15}$

$= 3\frac{8}{15}$

$= \frac{100-21}{28} = \frac{79}{28} = 2\frac{23}{28}$

f. $5\frac{3}{8} - 1\frac{3}{4}$

$= \frac{43}{8} - \frac{7}{4}$

(LCM of 8, 4 = 8)

$= \frac{43}{8} - \frac{7 \times 2}{4 \times 2}$

$= \frac{43}{8} - \frac{14}{8}$

$= \frac{43-14}{8} = \frac{29}{8} = 3\frac{5}{8}$

3. Fill in the blanks :

Ans. a. $\frac{9}{13} + 0 = \mathbf{\frac{9}{13}}$

b. $\mathbf{\frac{95}{460}} + \frac{33}{103} = \mathbf{\frac{33}{103}} + \frac{95}{460}$

c. $\frac{16}{29} - \frac{16}{29} = \mathbf{0}$

d. $\frac{19}{31} - 0 = \mathbf{\frac{19}{31}}$

e. $\frac{9}{7} + \frac{3}{5} = \mathbf{\frac{3}{5}} + \frac{9}{7}$

f. $\frac{143}{275} - \frac{143}{275} = \mathbf{0}$

Exercise 5.4

Solve the following sums :

1. Megha spent on a movie = $\frac{1}{2}$ of pocket money

She spent on a pen = $\frac{1}{4}$ of pocket money

Total expenditure = $\left(\frac{1}{2} + \frac{1}{4}\right)$ of pocket money

$= \left(\frac{1 \times 2}{2 \times 2} + \frac{1}{4}\right)$ of pocket money

$= \left(\frac{2}{4} + \frac{1}{4}\right)$ of pocket money

$= \left(\frac{2+1}{4}\right)$ of pocket money

$= \frac{3}{4}$ of pocket money

So, Megh spent $\frac{3}{4}$ **of her allowance**.

2. Home work was done on Saturday = $\frac{3}{8}$

Home work was done on Sunday = $\frac{1}{4}$

Total home work was done = $\frac{3}{8} + \frac{1}{4}$

$= \frac{3}{8} + \frac{1 \times 2}{4 \times 2} = \frac{3}{8} + \frac{2}{8} = \frac{3+2}{8} = \frac{5}{8}$

So, Jasmin did $\frac{5}{8}$ of her homework over the weekend.

3. Length of rope $= 5\frac{1}{2}$ m $= \frac{11}{2}$ m

Cutting length of rope $= 3\frac{2}{3}$ m $= \frac{11}{3}$ m

Length of the rope is left $= \frac{11}{2} - \frac{11}{3}$ (LCM of 2, 3 = 6)

$$= \frac{11 \times 3}{2 \times 3} - \frac{11 \times 2}{3 \times 2}$$

$$= \frac{33}{6} - \frac{22}{6}$$

$$= \frac{33 - 22}{6}$$

$$= \frac{33 - 22}{6} = \frac{11}{6} \text{ m} = 1\frac{5}{6} \text{ m}$$

So, $1\frac{5}{6}$ m of rope is left.

4. There was petrol in bike = 6 L

Petrol was left $= 1\frac{1}{4}$ L $= \frac{5}{4}$ L

\ Petrol was used $= \left(6 - \frac{5}{4}\right)$ L

$= \left(\frac{6}{1} - \frac{5}{4}\right)$ L $= \left(\frac{6 \times 4}{1 \times 4} - \frac{5}{4}\right)$ L

So, $4\frac{3}{4}$ L of Petrol was used.

Exercise 5.5

1. Find the product and write the answer in lowest form :

Ans. a. $24 \times 3\frac{1}{4}$

$= \frac{\overset{6}{\cancel{24}}}{1} \times \frac{13}{\cancel{4}_1}$

$= 78$

b. $\frac{9}{22} \times 33$

$= \frac{9}{\cancel{22}_2} \times \frac{\cancel{33}^3}{1} = \frac{27}{2} = 13\frac{1}{2}$

c. $\frac{11}{24} \times 32$

$= \frac{11}{\cancel{24}_3} \times \frac{\cancel{32}^4}{1} = \frac{44}{3} = 14\frac{2}{3}$

d. $15 \times \frac{12}{20}$

$= \frac{\overset{3}{\cancel{15}}}{1} \times \frac{\cancel{12}^3}{\cancel{20}_1} = \frac{9}{1}$

$= 9$

e. $10 \times 2\frac{1}{5} = \frac{\cancel{10}^2}{1} \times \frac{11}{\cancel{5}_1}$

$= \frac{22}{1} = 22$

f. $3 \times 2\frac{2}{15}$

$= \frac{1\cancel{3}}{1} \times \frac{32}{\cancel{15}_5} = \frac{32}{5}$

$= 6\frac{2}{5}$

g. $5\frac{1}{5} \times 4$

$= \frac{41}{\cancel{8}_2} \times \frac{\cancel{4}^1}{1}$

$= \frac{41}{2} = 20\frac{1}{2}$

h. $6\frac{1}{16} \times 36$

$= \frac{97}{\cancel{16}_4} \times \frac{2}{\cancel{5}_1} \times \frac{\cancel{4}^1}{5} = \frac{873}{4}$

$= 218\frac{1}{4}$

2. Complete :

Ans. a. $\frac{3}{8}$ of 36

$= \frac{3}{8} \times 36$

$= \frac{3}{\cancel{8}_{2}} \times \frac{\cancel{36}^{9}}{1}$

$= \frac{27}{2} = 13\frac{1}{2}$

b. $\frac{4}{11}$ of 55

$= \frac{4}{11} \times 55$

$= \frac{4}{\cancel{11}_{1}} \times \frac{\cancel{55}^{5}}{1}$

$= \frac{20}{1} = 20$

c. $\frac{4}{15}$ of $\frac{20}{21}$

$= \frac{4}{\cancel{15}_{3}} \times \frac{\cancel{20}^{4}}{21} = \frac{16}{63}$

d. $\frac{24}{25}$ of $\frac{35}{36}$

$= \frac{\cancel{24}^{2}}{\cancel{25}_{5}} \times \frac{\cancel{35}^{7}}{\cancel{36}_{3}} = \frac{14}{15}$

e. $\frac{7}{8}$ of $\frac{16}{21}$

$= \frac{\cancel{7}}{\cancel{8}_{1}} \times \frac{\cancel{16}^{2}}{\cancel{21}_{3}} = \frac{2}{3}$

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

$= \frac{3}{2}$ of $\frac{19}{5}$

$= \frac{3}{2} \times \frac{19}{5} = \frac{57}{10} = 5\frac{7}{10}$

3. Multiply and write the answer in lowest form :

Ans. a. $\frac{1}{9} \times \frac{1}{2} = \frac{1}{18}$

b. $\frac{2}{7} \times \frac{8}{9} \times \frac{1}{4} = \frac{4}{63}$

c. $1\frac{2}{7} \times 3\frac{1}{5}$

$= \frac{9}{7} \times \frac{16}{5} = \frac{144}{35}$

$= 4\frac{4}{35}$

d. $3\frac{3}{5} \times 5\frac{1}{2}$

$= \frac{\cancel{18}^{9}}{5} \times \frac{11}{\cancel{2}_{1}} = \frac{99}{5} = 19\frac{4}{5}$

e. $\frac{1}{8} \times \frac{1}{6} \times 1\frac{1}{18}$

$= \frac{1}{8} \times \frac{1}{\cancel{6}_{2}} \times \frac{\cancel{3}^{1}}{2}$

$= \frac{1}{32}$

f. $10\frac{3}{8} \times 3\frac{1}{9}$

$= \frac{83}{\cancel{8}_{2}} \times \frac{\cancel{28}^{7}}{9} = \frac{581}{18}$

$= 32\frac{5}{8}$

g. $1\frac{1}{2} \times 2\frac{1}{3} \times 3\frac{1}{4}$

$= \frac{\cancel{3}^{1}}{2} \times \frac{7}{\cancel{3}_{1}} \times \frac{13}{4}$

$= \frac{91}{8} = 11\frac{3}{8}$

h. $1\frac{1}{4} \times \frac{2}{5} \times \frac{4}{5}$

$= \frac{\cancel{15}}{4} \times \frac{2}{\cancel{5}_{1}} \times \frac{\cancel{4}^{1}}{5}$

$= \frac{2}{5}$

4. Fill in the blanks :

Ans. a. $\frac{11}{15} \times 1 = \frac{11}{15}$

b. $\frac{8}{7} \times 14 = 14 \times \frac{8}{7}$

c. $0 \times \frac{25}{27} = 0$

d. $\frac{7}{9} \times \frac{4}{5} = \frac{4}{5} \times \frac{7}{9} = \frac{28}{45}$

e. $\frac{11}{17} \times 0 = 0$

f. $\frac{17}{19} \times 1 = \frac{17}{19}$

Exercise 5.6

1. Find the reciprocal (or multiplicative inverse) of each of the following :

Ans. a. Reciprocal of $\frac{11}{3}$ to $\frac{3}{11}$

b. Reciprocal of $2\frac{1}{7} = \frac{15}{7}$ is $\frac{7}{15}$

c. Reciprocal of $\frac{15}{23}$ is $\frac{23}{15}$

d. Reciprocal of $\frac{21}{8}$ is $\frac{8}{21}$

e. Reciprocal of $\frac{2}{5}$ is $\frac{5}{2}$

f. Reciprocal of $19 = \frac{19}{1}$ is $\frac{1}{19}$

g. Reciprocal of 1 is **1**

h. Reciprocal of $\left(1\frac{6}{9} = \frac{15}{9}\right)$ is $\frac{9}{15}$

2. Divide and write the answer in the lowest term :

Ans. a. $72 \div \frac{6}{7}$

$= \overset{12}{\cancel{72}} \times \frac{7}{\cancel{6}_1} = \frac{84}{1}$

$= \mathbf{84}$

b. $\frac{5}{9} \div 15$

$= \frac{\cancel{5}^1}{9} \div \frac{1}{\cancel{15}_3}$

$= \frac{1}{27}$

c. $\frac{1}{3} \div 4$

$= \frac{1}{3} \div \frac{4}{1}$

$= \frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$

d. $48 \div 2\frac{2}{5}$

$= 48 \div \frac{12}{5}$

$= \frac{48}{1} \times \frac{5}{12} = \frac{20}{1} = \mathbf{20}$

e. $\frac{12}{13} \div 9$

$= \frac{12}{13} \div \frac{9}{1}$

$= \frac{\overset{4}{\cancel{12}}}{13} \times \frac{1}{\cancel{9}_3} = \mathbf{\frac{4}{39}}$

f. $77 \div \frac{11}{3}$

$= \frac{\overset{7}{\cancel{77}}}{1} \times \frac{3}{\cancel{11}_1} = \frac{21}{1} = \mathbf{21}$

g. $\frac{11}{4} \div 55 = \frac{11}{4} \div \frac{55}{1}$

$= \frac{\cancel{11}^1}{4} \times \frac{1}{\cancel{55}_5} = \frac{1}{20}$

h. $6 \div 8$

$= \frac{6}{1} \div \frac{8}{1} = \frac{\cancel{6}^3}{1} \times \frac{1}{\cancel{8}_4} = \frac{3}{4}$

3. Find the value of each of the following :

Ans. a. $\frac{5}{9} \div \frac{15}{36}$

$= \frac{\cancel{5}}{\cancel{9}} \times \frac{\overset{4}{\cancel{36}}}{\cancel{15}_3} = \frac{4}{3} = 1\mathbf{\frac{1}{3}}$

b. $\frac{12}{13} \div \frac{1}{52}$

$= \frac{12}{13} \times \frac{\cancel{52}^4}{1} = \frac{48}{1} = \mathbf{48}$

c. $16 \div \frac{2}{5} = \frac{16}{1} \div \frac{2}{5}$

$= \frac{\overset{8}{\cancel{16}}}{1} \times \frac{5}{\cancel{2}_1} = \frac{40}{1} = \mathbf{40}$

d. $9\frac{5}{6} \div 5\frac{1}{6}$

$= \frac{59}{\cancel{6}} \times \frac{\cancel{6}}{31} = \frac{59}{\cancel{6}} \times \frac{\cancel{6}}{31} = \frac{59}{31} = 1\mathbf{\frac{28}{31}}$

e. $7\frac{3}{5} \div 19$

$= \frac{38}{5} \div \frac{19}{1}$

$= \frac{\cancel{38}^{2}}{5} \times \frac{1}{\cancel{19}_{1}}$

$= \frac{2}{\mathbf{5}}$

f. $8\frac{2}{5} \div 2\frac{2}{15}$

$= \frac{42}{5} \div \frac{32}{15}$

$= \frac{\cancel{42}^{21}}{\cancel{5}_{1}} \times \frac{\cancel{15}^{3}}{\cancel{32}_{16}}$

$= \frac{63}{16} = 3\frac{15}{\mathbf{16}}$

g. $1\frac{2}{11} \div 2\frac{5}{22}$

$= \frac{13}{11} \div \frac{49}{22}$

$= \frac{13}{\cancel{11}_{1}} \times \frac{\cancel{22}^{2}}{49}$

$= \frac{26}{\mathbf{49}}$

h. $4\frac{1}{2} \div 4\frac{1}{5}$

$= \frac{9}{2} \div \frac{21}{5}$

$= \frac{\cancel{9}^{3}}{2} \times \frac{5}{\cancel{21}_{7}} = \frac{15}{14} = 1\frac{1}{\mathbf{14}}$

4. Fill in the blanks :

Ans. a. $7 \times \frac{\mathbf{1}}{\mathbf{7}} = 1$ b. $\frac{5}{8} \times \frac{\mathbf{8}}{\mathbf{5}} = 1$ c. $\frac{\mathbf{15}}{\mathbf{13}} \times \frac{13}{15} = 1$

d. $2\frac{1}{7} \div \mathbf{1} = 2\frac{1}{2}$ e. $\frac{9}{20} \times 2\frac{2}{9} = \mathbf{1}$ f. $\mathbf{0} \div \frac{3}{7} = 0$

Exercise 5.7

Solve these story sums :

1. The paint is required for 1sq m. area = $2\frac{3}{4}$ L

\ The paint is required for $3\frac{1}{2}$ sq more = $\left(2\frac{3}{4} \times 3\frac{1}{2}\right)$ L

$= \left(\frac{11}{4} \times \frac{7}{2}\right)$ L $= \frac{77}{8}$ L $= 9\frac{5}{8}$ L

So, $9\frac{5}{8}$ L paint is required to colour the wall.

2. In $2\frac{1}{2}$ hours Rahul walked = $5\frac{3}{4}$ km

In 1 hours Rahul walk = $\left(5\frac{3}{4} \div 2\frac{1}{2}\right)$

$= \left(\frac{23}{4} \div \frac{5}{2}\right)$ km $= \left(\frac{23}{\cancel{4}_{2}} \times \frac{\cancel{2}^{1}}{5}\right)$ km

$= \frac{23}{10}$ km $= 2\frac{3}{10}$ km

so, Rahul walked $2\frac{3}{10}$ km per hour.

3. The cost of $3\frac{1}{2}$ kg apples = ` $157\frac{1}{2}$

The cost of 1 kg apples = ` $\left(157\frac{1}{2} \div 3\frac{1}{2}\right)$

= ` $\left(\frac{315}{2} \div \frac{7}{2}\right)$

= ` $\left(\frac{315}{\cancel{2}_{1}} \times \frac{\cancel{2}^{1}}{\cancel{7}_{1}}\right)$ = ` 45

So, the cost of 1 kg apples is `**45**.

4. Cocoa is needed for 1 chocolate bar = $\frac{3}{4}$ cups

\ Cocoa is needed for 16 chocolate bars = $\left(\frac{3}{4} \times 16\right)$

= $\frac{3}{\cancel{4}_1} \times \frac{\cancel{16}^4}{1}$ cups = $\frac{12}{1}$ cups = 12 cups

so, to make 16 chocolates, 12 cups cocoa is needed.

5. Weight of 1 cement block = $2\frac{1}{5}$ kg

\ Weight of 5 cement blocks = $\left(2\frac{1}{5} \times 5\right)$ kg

= $\left(\frac{11}{\cancel{5}_1} \times \frac{\cancel{5}^1}{1}\right)$ kg = 11 kg

= So, Weight of 5 cement blocks is 11 kg

6. The cost of $3\frac{1}{2}$ kg apples = `280

\ The cost of 1 kg apples = ` $\left(280 \div 3\frac{1}{2}\right)$

= ` $\left(\frac{280}{1} \div \frac{2}{7}\right)$

= ` $\left(\frac{\cancel{280}^{40}}{1} \times \frac{2}{\cancel{7}_1}\right)$ = ` 80

So, the cost of 1 kg apples is `80.

Higher Order Thinking skills

Ans. a. 3,33,333.33 b. $\frac{9}{50}$ c. $\frac{1}{50}$

Think And Do

Write the multiplication inverse of these fractions.

Ans. 1. $\frac{5}{2}$ 2. $\frac{7}{4}$ 3. $\frac{2}{1}$ 4. $\frac{7}{6}$ 5. $\frac{3}{1}$ 6. $\frac{5}{6}$

7. $\frac{9}{8}$ 8. $\frac{5}{3}$ 9. $\frac{7}{9}$

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. a. 4. c. 5. a.

Decimals

6

Let's Review

Write the decimal form for each of the following :

Ans. a. 0.45 b. 0.70 c. 0.80 d. 0.55

Think And Do

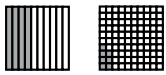
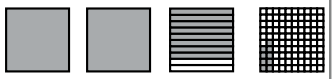
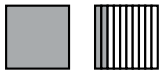
Write the decimals for the coloured part.

Ans. 2. 0.7, seven tenths 3. 0.9, nine tenths

Exercise 6.1

1. Complete the table of the coloured part.

Ans.

	Coloured Parts	Decimal form	Read as
a.		0.47	zero point four seven
b.		2.89	Two point eight nine
c.		1.2	One point two

2. Write the decimals for the following :

Ans. a. 3.34 b. 69.637 c. 100.001 d. 0.7
e. 0.010 f. 1000.8

3. Write in words.

Ans. a. nine point zero zero eight
b. forty one point zero seven
c. eight point seven three
d. zero point nine four three
e. fifty-eight point zero-seven six
f. zero point six

Exercise 6.2

1. Write the place value of the coloured digit.

Ans. a. Place value of 8 in 8.365 is 8 ones = $8 \times 1 = \mathbf{8}$

b. Place value of 7 in 8.782 is 7 tenths = $\frac{7}{10} = \mathbf{0.7}$

c. Place value of 4 in 25.849 is 4 hundredths = $\frac{4}{100} = \mathbf{0.04}$

d. Place value of 6 in 96.121 is 6 ones = $6 \times 1 = \mathbf{6}$

e. Place value of 8 in 150.895 is 8 tenths = $\frac{8}{10} = \mathbf{0.8}$

f. Place value of 2 in 902.802 is 2 thousandths = $\frac{2}{1000} = 0.002$

g. Place value of 5 in 59.405 is tens = $5 \times 10 = \mathbf{50}$

h. Place value of 3 in 842.039 is 3 hundredths = $\frac{3}{100} = \mathbf{0.03}$

2. Write the following in expanded form using decimal expansion.

Ans. a. Expanded form of 44.444 = 40 + 4 + 0.4 + 0.04 + 0.004
b. Expanded form of 0.48 = 0.4 + 0.08
c. Expanded form of 6.003 = 6 + 0.003
d. Expanded form of 1.482 = 1 + 0.4 + 0.08 + 0.002
e. Expanded form of 5.09 = 5 + 0.09
f. Expanded form of 856.787 = 800 + 50 + 6 + 0.7 + 0.08 + 0.007
g. Expanded form of 609.92 = 600 + 9 + 0.9 + 0.02
h. Expanded form of 124.35 = 100 + 20 + 4 + 0.3 + 0.05

3. Write the following in short form.

Ans. a. 20.026 b. 2.813 c. 936.508 d. 8.234

4. Write the following in decimal form.

Ans. a. 0.20 b. 0.4 c. 0.036 d. 0.0008
e. 0.575 f. 38.4 g. 38.46 h. 3.941

5. Express in the fractional form.

Ans. a. $\frac{1483}{1000}$ b. $\frac{67}{100}$ c. $\frac{837}{1000}$ d. $\frac{81153}{100}$
e. $\frac{24455}{1000}$ f. $\frac{710053}{10000}$ g. $\frac{29380}{1000}$ h. $\frac{142625}{100}$

Think And Do

Compare by using the signs >, < or =.

Ans. 1. > 2. > 3. > 4. <

Exercise 6.3

1. Write the equivalent decimals.

Ans. a. **0.5** = 0.50 = 0.500 b. 0.7 = 0.70 = **0.700**
c. 6.8 = **6.80** = 6.800 d. **4.2** = **4.20** = 4.200
e. 1.5 = 1.50 = **1.500** f. 3.7 = **3.70** = **3.700**

2. Circle the unlike fractions.

Ans. a. 5.8, 5.08, 5.81, 58.01
b. 9.6, 5.38, 23.1, 65.4
c. 14.99, 6.62, 483.3, 11.34
d. 0.071, 1.001, 56.01, 561.008

3. Fill in the blanks using <, > or = :

Ans. a. < b. > c. > d. =
e. < f. <

4. Arrange the following decimals in the ascending order :

Ans. a. 8.86, 8.094, 8.9
= 8.860, 8.094, 8.900
\ 8.094 < 8.860 < 8.900 In ascending order
= 8.094 < 8.86 < 8.9

b. 11.1, 11.21, 11.001
In ascending order
= 11.001 < 11.100 < 11.210
= 11.001 < 11.1 < 11.21

c. 9.82, 9.9, 9.795
= 9.820, 9.900, 9.795
In ascending order
9.795 < 9.820 < 9.900
= 9.795 < 9.82 < 9.9

d. 20.3, 30.2, 23.25
In ascending order
20.3 < 23.25 < 30.2

5. Arrange the following in descending order.

Ans. a. 69.84, 7.68, 7.063, 16.09
= 69.840, 7.680, 7.063, 16.090

In descending order
69.84 > 16.09 > 7.68 > 7.063

b. 0.046, 4.06, 4.36, 4.236
= 0.046, 4.060, 4.360, 4.236
In descending order
4.360 > 4.236 > 4.060 > 0.046
= 4.36 > 4.236 > 4.06 > 0.046

c. 48.231, 46.236, 1.64, 36.23
In descending order
48.231 > 46.231 > 36.23 > 1.64

d. 6.38, 6.234, 16.234, 31.46
= 6.380, 6.234, 16.234, 31.460
31.46 > 16.234 > 6.38 > 6.234

Exercise 6.4

1. Find the sums or difference :

Ans. a.
$$\begin{array}{r} {\scriptstyle (1)} \\ 27.5 \\ +\,31.9 \\ \hline 59.4 \end{array}$$

b.
$$\begin{array}{r} {\scriptstyle (1)(1)} \\ 153.304 \\ +\,67.291 \\ \hline 220.535 \end{array}$$

c.
$$\begin{array}{r} {\scriptstyle (3)(11)} \\ 141.516 \\ +\,38.504 \\ \hline 103.012 \end{array}$$

d.
$$\begin{array}{r} {\scriptstyle (3)(11)(4)(9)(10)} \\ 420.800 \\ +\,360.365 \\ \hline 60.135 \end{array}$$

2. Add :

Ans. a.
$$\begin{array}{r} 6.2 \\ +\;\;6.2 \\ \hline 12.4 \end{array}$$

6.2 + 6.2 = **12.4**

b.
$$\begin{array}{r} {\scriptstyle (1)(1)\;(1)} \\ 7.65 \\ 19.15 \\ +\;\;0.75 \\ \hline 27.55 \end{array}$$

7.65 + 19.15 + 0.75
= 27.55

c.
$$\begin{array}{r} {\scriptstyle (1)(1)\;(1)} \\ 11.40 \\ 0.86 \\ +29.55 \\ \hline 41.81 \end{array}$$

11.4 + 0.86 + 29.55
= 41.81

d.
$$\begin{array}{r} 1.001\,00 \\ 2.920\,00 \\ +0.002\,92 \\ \hline 3.923\,92 \end{array}$$

1.001 + 2.92
+ 0.00292
= 3.92392

e.
$$\begin{array}{r} {\scriptstyle (2)(1)} \\ 1.369 \\ 7.280 \\ +\;\;6.093 \\ \hline 14.742 \end{array}$$

1.369 + 7.28 +
6.093 = 14.742
= 14.742

f.
$$\begin{array}{r} {\scriptstyle (1)(1)(1)} \\ 38.505\,0 \\ 0.385\,0 \\ +291.676\,5 \\ \hline 330.566\,5 \end{array}$$

38.505 + 0.385
+ 291.6765
= 330.5665

g.
$$\begin{array}{r} {\scriptstyle (1)(1)\;(1)(1)} \\ 15.967 \\ 13.293 \\ +\;\;5.005 \\ \hline 34.265 \end{array}$$

15.967 + 13.293
+ 5.005 = 34.265

h.
$$\begin{array}{r} {\scriptstyle (1)(2)} \\ 17.80 \\ 15.50 \\ +\;\;85.96 \\ \hline 119.26 \end{array}$$

17.80 + 15.50 +
85.96 = 119.26

3. Subtract :

Ans. a. 18.95 – 15.86 = **3.09**

$$\begin{array}{r} {\scriptstyle (8)\,(15)} \\ 18.\not{9}\not{5} \\ -\,15.86 \\ \hline 3.09 \end{array}$$

b. 63.125 – 28.350 = **34.775**

$$\begin{array}{r} {\scriptstyle (5)\,(12)\;\;(10)\,(12)} \\ \not{6}\not{3}.125 \\ -\,28.350 \\ \hline 34.775 \end{array}$$

c. 113 – 14.101 = **98.899**

$$\begin{array}{r} {\scriptstyle (10)\,(12)\;\;(9)\,(9)\,(10)} \\ \not{1}\not{1}\not{3}.\not{0}\not{0}\not{0} \\ -\,14.101 \\ \hline 98.899 \end{array}$$

d. 15.963 – 13.89 = **2.073**

$$\begin{array}{r} {\scriptstyle (8)\,(16)} \\ 15.9\not{6}3 \\ -\,13.890 \\ \hline 2.073 \end{array}$$

e. 70 – 45.904 = **24.096**

$$\begin{array}{r} {\scriptstyle (6)\,(9)\;\;(9)\,(9)\,(10)} \\ 70.000 \\ -\,45.904 \\ \hline 24.096 \end{array}$$

f. 400 – 350.937 = **49.063**

$$\begin{array}{r} {\scriptstyle (3)\,(9)\,(9)\;\;(9)\,(9)\,(10)} \\ 400.000 \\ -\,350.937 \\ \hline 49.063 \end{array}$$

g. 37.750 – 25.850 = **11.9**

$$\begin{array}{r} {\scriptstyle (6)\,(17)} \\ 37.7\not{5}0 \\ -\,25.850 \\ \hline 11.900 \end{array}$$

h. 9 – 7.473 = **1.527**

$$\begin{array}{r} {\scriptstyle (8)\;\;(9)\,(9)\,(10)} \\ 9.000 \\ -\,7.473 \\ \hline 1.527 \end{array}$$

i. 56.813 – 27.303 = **29.51**

$$\begin{array}{r} {\scriptstyle (4)\,(16)} \\ 56.813 \\ -\,27.303 \\ \hline 29.510 \end{array}$$

Exercise 6.5

1. Find the product.

Ans. a. 5.215 × 19 = **99.0375**

$$\begin{array}{r} 5.2125 \\ \times\,19 \\ \hline 46\,9125 \\ 52\,1250 \\ \hline 99.0375 \end{array}$$

b. 36.5 × 5 = **182.5**

$$\begin{array}{r} 36.5 \\ \times\,5 \\ \hline 182.5 \end{array}$$

c. 11.11 × 92 = **1022.12**

$$\begin{array}{r} 11.11 \\ \times\,92 \\ \hline 2222 \\ 99990 \\ \hline 1022.12 \end{array}$$

d. 1.11 × 2.2 × 0.9 = **2.4 × 0.9 = 2.1978**

$$\begin{array}{r} 1.11 \\ \times\,2.2 \\ \hline 222 \\ 2220 \\ \hline 2.442 \end{array} \qquad \begin{array}{r} 2.442 \\ \times\,0.9 \\ \hline 2.1978 \end{array}$$

e. 0.478 × 17.6 = **8.4128**

```
  0.478
× 17.6
-------
  2868
 33460
 47800
-------
 8.4128
```

f. 11.11 × 1.1 × 0.1 = **12.221 × 0.1 = 1.2221**

```
  11.11
×  1.1
-------
  1111
 11110
-------
12.221
```

g. 0.75 × 0.29 = **0.2175**

```
  0.75
× 0.29
-------
   675
  1500
-------
 0.2175
```

h. 0.93 × 0.84 = **0.7812**

```
  0.93
× 0.84
-------
   372
  7440
-------
 0.7812
```

i. 8.6 × 1.4 = **12.04**

```
  8.6
× 1.4
-----
 344
 860
-----
12.04
```

2. Multiply :

Ans. a. 0.05 × 1000 = **50.00**
b. 6.25 × 10 = **62.5**
c. 0.2345 × 100 = **23.45**
d. 19.09 × 10 = **190.9**
e. 28.625 × 1000 = **28625**
f. 3.835 × 100 = **383.5**
g. 0.12 × 10000 = **1200**
h. 0.003 × 100 = **0.3**
i. 1.098 × 1000 = **1098**

3. Fill in the blanks :

Ans. a. 1.23 × 1 = **1.23**
b. 3.26 × **0** = 0
c. 3.7 × **4.2** = 4.2 × 3.7
d. 7.235 × **1** = 7.235
e. 4.5 × 0 = **0**
f. 1 × **2.35** = 2.35

Exercise 6.6

1. Divide.

Ans. a. 8.1 ÷ 8 = 1.0125

```
   1.0125
5) 8.1
 - 8
   10
  - 8
    20
  - 16
     40
   - 40
      0
```

b. 6.14 ÷ 5 = 1.228

```
   1.228
5) 6.14
 - 5
   11
 - 10
    14
  - 10
     40
     40
      0
```

c. 587.298 ÷ 15 = 39.1532

```
    39.1532
15 ) 587.298
   - 45
     137
   - 135
       22
     - 15
        79
      - 75
         48
       - 45
          30
        - 30
           0
```

d. 45.7 ÷ 8 = 5.7125

```
     5.7125
8 ) 45.7
  - 40
    57
  - 56
     10
   - 8
     20
  - 16
     40
  - 40
      0
```

e. 0.153 ÷ 6 = 0.0255

```
    0.0255
6 ) 0.153
  - 12
     33
   - 30
      30
      30
       0
```

f. 72.93 ÷ 5 = 14.586

```
     14.586
5 ) 72.93
  - 5
    22
  - 20
     29
   - 25
      40
    - 40
       30
     - 30
        0
```

g. 91.89 ÷ 2 = 45.945

```
    45.945
2 ) 91.89
  - 8
    11
  - 10
     18
   - 18
      9
    - 8
      10
    - 10
       0
```

h. 0.1365 ÷ 2 = 0.06825

```
     0.06825
2 ) 0.1365
   - 12
      16
    - 16
       5
     - 4
       10
     - 10
        0
```

2. Write the quotient.

Ans. a. 0.8 ÷ 10 = **0.08**
b. 1.45 ÷ 100 = **0.0145**
c. 67.3 ÷ 10 = **6.73**
d. 8.75 ÷ 100 = **0.0875**
e. 3.71 ÷ 1000 = **0.00371**
f. 33.5 ÷ 100 = **0.335**
g. 0.6 ÷ 1000 = **0.0006**
h. 9.1 ÷ 10 = **0.91**

3. Divide.

Ans. a. $6.25 \div 0.5 = \frac{6.25}{0.5} = \frac{62.5}{5} = \mathbf{12.5}$

$$\begin{array}{r} 12.5 \\ 5\overline{)62.5} \\ -\,5 \\ \hline 12 \\ -\,10 \\ \hline 25 \\ -\,25 \\ \hline 0 \end{array}$$

b. $109.02 \div 2.3 = \frac{109.02}{2.3} = \frac{1090.2}{23} = \mathbf{47.4}$

$$\begin{array}{r} 47.4 \\ 23\overline{)1090.2} \\ -\,92 \\ \hline 170 \\ -\,161 \\ \hline 92 \\ -\,92 \\ \hline 0 \end{array}$$

c. $6.4 \div 1.6 = \frac{6.4}{1.6} = \frac{64}{16} = \mathbf{4}$

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

d. $1.404 \div 0.108 = \frac{1.404}{0.108} = \frac{1404}{108} = \mathbf{4}$

$$\begin{array}{r} 13 \\ 108\overline{)1404} \\ -\,108 \\ \hline 324 \\ -\,324 \\ \hline 0 \end{array}$$

e. $1.8 \div 0.2 = \frac{1.8}{0.2} = \frac{18}{2} = \mathbf{9}$

f. $22 \div 0.11 = \frac{22}{0.11} = \frac{2200}{11} = \mathbf{200}$

$$\begin{array}{r} 200 \\ 11\overline{)2200} \\ -\,22 \\ \hline 00 \\ -\,0 \\ \hline 0 \\ -\,0 \\ \hline 0 \end{array}$$

Exercise 6.7

Ans. 1. The cost of 1 book = ` 25.35
\ The cost of 45 books = ` 25.35 × 45
= ` 1140.75
So, ` 1140.75 is the cost of 45 books

$$\begin{array}{r} 25.35 \\ \times\ 45 \\ \hline 12675 \\ 101400 \\ \hline 1140.75 \end{array}$$

2. Sonu had = ` 55.50
He spent = ` 27
Money is left = ` (55.50 – 27) = ` 28.50
So, ` 28.50 are left with Sonu.

```
  55.50
– 27.00
  28.50
```

3. Madhu had = ` 100
She spent = ` 75.75
Money is left = ` (100 – 75.75) = ` 24.25
So, ` 24.25 is left with Madhu.

```
  (9)(9)  (9)(10)
  100.00
– 75.75
  24.25
```

4. The cost of a tennis racket = ` 650.75
The cost of a box of 6 balls = ` 110.50
\ Total cost of both items = ` (650.75 + 110.50)
= ` 761.25
So, ` 761.25 are the cost of both items.

```
  (9)(9)  (9)(10)
  650.75
–110.50
  761.25
```

5. The product of two numbers = 4832
One number of them = 25
\ Other number = $\frac{\text{Product}}{\text{One number}} = \frac{4832}{25}$
= 193.28
So, the other number is 193.28

```
      193.28
25)4832
  – 25
    233
  – 225
      82
    – 75
       70
    – 50
       200
      – 200
         0
```

6. The cost of 25 chocolates = ` 63.50
\ The cost of 1 chocolate = ` (63.50 ÷ 25)
= ` 2.54
So, the cost of 1 chocolate is ` 2.54

```
      2.54
25) 63.50
  – 50
    135
  – 125
     100
   – 100
      0
```

7. The cost f 1 litre of petrol = ` 75.50
The cost of 4 litres of petrol = ` 75.50 × 4
= ` 302
So, the cost of 4 L of petrol will be ` 302.

```
  75.50
   × 4
302.00
```

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. b. 4. a.

Let's Review

Ans. 1. Rohit has ` 3. He wants to buy some bananas with this amount. The number of bananas that Rohit can purchase with ` 3 is **3**.

2. Anu has ` 15. She wants to buy watermelon. The quantities of watermelon she can purchase with ` 15 is **0.5 kg**.

3. Abhishak wants to buy 3kg of apples. What amount does he need to buy these apples? ` **120**.

Exercise 7

1. The cost of 39 bats = ` 39000

\ The cost of 1 bats = ` 39000 ÷ 39 = ` 1000

So, the cost of 1 bats is ` 1000

2. The cost of 36 books = ` 6480

\ The cost of 1 book = ` 6480 ÷ 36 = ` 180

` 180 will be the cost of one book.

```
   180
36)6480
 −36
  288
 −288
    0
   −0
    0
```

3. The weight of 1 bag = 451 kg

The weight of 125 bags = 451 × 125 kg

= 56375 kg

So, the weight of 125 bags will be 56375 kg.

```
   451
 × 125
 2255
 9020
45100
56375
```

4. 1 year = 12 months.

In 12 months Raghav spends = ` 1,27,200

In 1 months Raghav spends = ` 1,27,200 ÷ 12

= ` 10600

In 8 months Ragave spends = ` 10,600 × 8

= ` 84,800

So, Raghav spends ` 84,800 in 8 months.

```
   10600
12)127200
 −12
  72
 −72
   0
  −0
   0
  −0
   0
```

5. In 8 minutes Arjun covers = 480 metres

In 1 minutes Arjun covers = $\frac{480}{8}$ = 60 metres

In 20 minutes Arjun covers = 60 × 20 = 1200 metres

So, Arjun will cover 1200 metres.

6. 1 month = 30 days.

In 30 days the factory produces = 824,40 bottles.

In 1 day the factory produces = $\frac{82,440}{30}$

In 25 days the factory produces = $\frac{82,440 \times 25}{30}$ = 68,700 bottles.

So, the factory will produce 68,700 bottles.

7. The cost of 9 trousers = ` 1791
The cost of 1 trouser = ` 1791 ÷ 9 = ` 199
In ` 199 Pankay bought = 1 trouser
In ` 5,373 panky bought = ` 5373 ÷ 199 = 27 trousers.
So, Pankay bought 27 trousers.

```
   199
9)1791
 - 9
  89
 -81
   81
 -81
    0
```

8. The cost of 24 computers = ` 6,36,000
The cost of 1 computers = ` 6,36,000 ÷ 24
= ` 26,500
In ` 26,500 the company can buy = ` 1 computer
In ` 14,57,500 the company can buy
= 14,57500 ÷ 26500
= 55 computers
So, the company can buy 55 computers.

```
   26500
24)636000
 - 48
  156
 - 144
    120
 - 120
      0
 -  0
      0
 -  0
      0
```

9. In 9 months Azad saves = ` 63000
In 1 months Azad saves = ` 63000 ÷ 9 = ` 7000
So, Azad saves ` 7000 in 1 month.

10. The cost of 5 T-shirts = ` 320
\ The cost of 1 T-shirt = ` 320 ÷ 5 = ` 64
So, Meera paid ` 64 for each T-shirt.

11. 1 dozen pins = 12 hair pins
\ one and a half dozens pins = 18 hair pins.
The cost of 18 hair-pins = ` 48
\ The cost of 1 hair pin = ` 48 ÷ 18
= ` 2.666 = ` 2.67
So, Chetna paid ` 2.67 for each hair pain.

```
   2.666
18)48
 - 36
  120
 - 108
    120
 - 108
    120
 - 108
     12
```

12. The cost of 20 m of cloth = ` 180
\ The cost of 1 m of cloth = ` 180 ÷ 20 = ` 9
\ The cost of 75 m of cloth = ` 9 × 75 = ` 675
So, ` 675 are the cost of 75 m of cloth.

13. The cost of 3 L of milk = ` 75
The cost of 1 L of milk = ` 75 ÷ 3 = ` 25
The cost of $5\frac{1}{2}$ L of milk = ` $25 \times 5\frac{1}{2}$ = ` $25 \times \frac{11}{2}$
= $\frac{275}{2}$ = ` 137.50
So, the cost of $5\frac{1}{2}$ L of milk is ` 137.50

14. 8 pieces of Gol Gappa = 1 plate

\ 1 piece of Gol Gappa = $\frac{1}{8}$ plate

\ 20 pieces of Gol Gappa = $\frac{20 \times 1}{8} = \frac{5}{2} = 2\frac{1}{2}$ plates

Cost of 1 plate = ` 12

\ Cost of $\frac{5}{2}$ plates = ` $12 \times \frac{5}{2}$ = ` $\frac{60}{2}$ = ` 30

So, Ravi paid ` 30 for $2\frac{1}{2}$ plates of 20 pieces.

15. 1 month = 30 days

The bus fare for 30 days = ` 99.90

The bus fare for 1 day = ` 99.90 ÷ 30 = ` 3.33

So, the bus fare for a day is ` 3.33

Think And Do

Fill in the blanks :

Ans. 1. ` 5.50 2. `360 3. ` 600

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. c. 4. a.

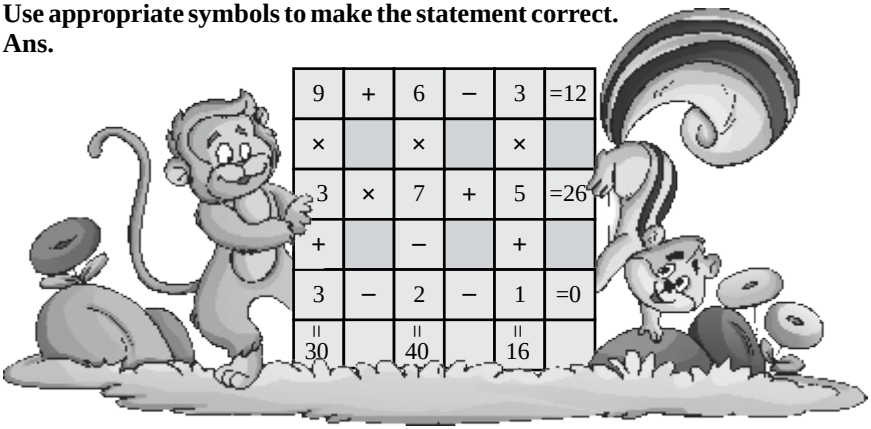
Simplification

8

Let's Review

Use appropriate symbols to make the statement correct.

Ans.



Exercise 8.1

1. Simplify :

Ans. a. 20 + 16 ÷ 2 (Using DMAS rule)

= 20 + **16 ÷ 2**

= 20 + 8 = **28**

b. 28 –16 ÷ 4 (Using DMAS rule)

= 28 – **16 ÷ 4**

c. **18 ÷ 3** – 2 (Using DMAS rule)
= 6 – 2 = **4**

d. **12 ÷ 4** + 2 (Using DMAS rule)
= 3 + 2 = **5**

e. $\frac{1}{2} \times \frac{1}{3} + \frac{1}{4}$ (Using DMAS rule)

$= \frac{1}{6} + \frac{1}{4}$

$= \frac{2 \times 1 + 3 \times 1}{12} = \frac{2 + 3}{12} = \frac{5}{\mathbf{12}}$

f. $\frac{3}{4} \times \frac{4}{9} - \frac{1}{8}$ (Using DMAS rule)

$= \frac{\cancel{3}^{1}}{\cancel{4}_{1}} \times \frac{\cancel{4}^{1}}{\cancel{9}_{3}} - \frac{1}{8}$

$= \frac{1}{3} - \frac{1}{8}$

$\frac{8 \times 1 - 3 \times 1}{24} = \frac{8 - 3}{24} = \frac{5}{\mathbf{24}}$

g. 60 × 2 + 18 ÷ 2 – 43 (Using DMAS rule)
= 60 × 2 + 9 – 43
= 120 + 9 – 43
= 129 – 43
= **86**

h. 56 ÷4 + 12 × 2 (Using DMAS rule)
= 14 + 12 × 2
= 14 + 24
= **38**

i. 112 – **45 ÷ 9** × 10 (Using DMAS rule)
= 112 – **5 × 10**
= 112 – 50
= **62**

j. $\frac{3}{7} \div \frac{1}{14} \times \frac{1}{6}$ (Using DMAS rule)

$= \frac{\cancel{3}^{1}}{\cancel{7}_{1}} \times \frac{\cancel{14}^{2}}{1} \times \frac{\cancel{1}^{1}}{\cancel{6}_{2}_{1}} = \frac{1}{1} = 1$

k. $\frac{4}{7} - \frac{1}{7} \times \frac{2}{3}$ (Using DMAS rule)

$= \frac{4}{7} - \frac{2}{21}$

$= \frac{3 \times 4 - 1 \times 2}{21} = \frac{12 - 2}{21} = \frac{10}{21}$

l. $4\frac{1}{4} \div \frac{17}{16} + \frac{1}{2}$

$= \frac{17}{4} \div \frac{17}{16} + \frac{1}{2}$ (Using DMAS rule)

$= \frac{\cancel{17}^{1}}{\cancel{4}_{1}} \times \frac{\cancel{16}^{4}}{\cancel{17}_{1}} + \frac{1}{2}$

$= \frac{4}{1} + \frac{1}{2} = \frac{2 \times 4 + 1 \times 1}{2} = \frac{8 + 1}{2} = \frac{9}{2} = 4\frac{1}{2}$

2. Fill in the correct symbol +, –, x or ÷ to make the sum correct.

Ans. a. $15 \times 4 + 24 \div 3 = 68$ b. $8 \times 3 - 6 \div 2 = 21$

c. $6 \div 2 - 1 = 2$ d. $6 + 8 - 42 \div 6 = 7$

e. $15 \div 5 + 4 = 7$ f. $4 \times 3 + 2 = 14$

Think And Do

1. Fill in the missing numbers.

Ans. 5 + 3 + (4 + 5 × 4 × 3 = 72

Use the numbers : 2, 5, 3 and 4

2. Fill in the missing operations.

Ans. (7 + 5) + 3 × 2 × 4 + (2 × 1) = 38

Use the operations : ×, ×, ×, +, + and +

Exercise 8.2

1. Simplify using BODMAS rule :

Ans. a. $\{32 - (15 + 7)\} \times 2$ (Using BODMAS rule)
$= \{32 - 22\} \times 2$
$= 10 \times 2$
$= 20$

b. $40 \div (1 + \overline{6 - 2}) + 5$ (Using BODMAS rule)
$= 40 \div (1 + 4) + 5$
$= 40 \div 5 + 5$
$= 8 + 5$
$= 13$

c. $\{5 + (48 \div 12)\} - 2 \times 3$ (Using BODMAS rule)
$= \{5 + 4\} - 2 \times 3$
$= 9 - 6$
$= 3$

d. $64 \div 16 \times (3 + 2)$ (Using BODMAS rule)
$= 64 \div 16 \times (5)$
$= 4 \times 5$
$= 20$

e. $3 + [\{(4 \div 4) + 1\} \times 8]$ (Using BODMAS rule)
$= 3 + [\{1 + 1\} \times 8]$
$= 3 + [2 \times 8]$
$= 3 + 16$
$= 19$

f. $[32 + \{44 - (32 \div 4)\}]$ (Using BODMAS rule)
$= [32 + \{44 - 8\}]$
$= [32 + 36]$
$= 68$

g. $17 + [8 - \{5 + (10 \div 5)\}]$ (Using BODMAS rule)
$= 17 + [8 - \{5 + 2\}]$
$= 17 + [8 - 7]$
$= 17 + 1$
$= 18$

h. [{66 – (13+14)} ÷ 3] + 9 (Using BODMAS rule)
= [{66 – 27} ÷ 3] + 9
= [39 ÷ 3] + 9
= 13 + 9
= 22

2. Simplify these and reduce your answer to the lowest terms :

Ans. a. 17 + [11 – {8 + 3 – (9 of 6 + 7 – 13 × 4)}] (Using BODMAS rule)
= 17 + [11 – {8 + 3 – (9 × 6 + 7 – 13 × 4)}]
= 17 + [11 – {8 + 3 – (54 + 7 – 52)}]
= 17 + [11 – {11 – (61 – 52)}]
= 17 + [11 – {11 – 9}]
= 17 + [11 – 2]
= 17 + 9
= **26**

b. 15 + 9 ÷ 3 – [5 × 3 – {5 – (8 – 5)}] (Using BODMAS rule)
= 15 + 9 ÷ 3 – [5 × 3 – {5 – 3}]
= 15 + 9 ÷ 3 [15 – 2]
= 15 + 9 ÷ 3 – 13
= 15 + 3 – 13
= 18 – 13
= **5**

c. 14 + 3 {34 – 18 – 14} ÷ 3 + [6 × 2 + 17 – (42 ÷ 7)]
(Using BODMAS rule)
= 14 + 3 {34 – 18 – 14} ÷ 3 + [6 × 2 + 17 – 6]
= 14 + 3 {34 – 32} ÷ 3 + [12 + 17 – 6]
= 14 + 3 {2} ÷ 3 + [29 – 6]
= $14 + \cancel{3} \times \frac{2}{\cancel{3}}$ + [23]
= 14 + 2 + 23
= **39**

d. 27 ÷ 3 × (7 – 4) + 2 × 9 ÷ (4 + 2) (Using BODMAS rule)
= 9 × (3) + 2 × 9 ÷ 6
= $27 + \frac{\cancel{2} \times \cancel{9}^{3}}{\cancel{6}_{\cancel{3}_{1}}}$
= 27 + 3
= **30**

e. 20 – [5 × {(7 + 2) ÷ 3}] (Using BODMAS rule)
= $20 - [5 \times \frac{\cancel{9}^{3}}{\cancel{3}_{1}}]$
= 20 – 15
= **5**

f. 9 + {20 – 3 of 5 + (20 + 40 – 25 ÷ 5)} (Using BODMAS rule)
= 9 + {20 – 15 + (60 – 5)}
= 9 + {5 + 55}
= 9 + 60
= **69**

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. a. 4. c. 5. a.

Average

9

Let's Review

Tom is watching a cricket match with his father.

Ans. Runs made by Lokesh Rahul in his last five innings = 60 + 78 + 17 + 0 + 120
= 275

Total inning = 5

So, Average runs = $\frac{\text{Total runs}}{\text{Total inning}}$

= $\frac{275}{5}$ = **55**

Exercise 9

1. Find the average of the given sets.

Ans. Average = $\frac{\text{Sum of Values}}{\text{number of values}}$

a. 11, 12, 13, 14
Sum of numbers = 11 + 12 + 13 + 14 = 50
Number of numbers = 4
\ Average = $\frac{\text{Sum of Values}}{\text{number of values}} = \frac{50}{4} = 12.5$
So, average is **12.5**

b. 18, 21, 32, 19, 25
Sum of numbers = 18 + 21 + 32 + 19 + 25 = 115
Number of numbers = 5
\ Average = $\frac{\text{Sum of Values}}{\text{number of values}} = \frac{115}{5} = 23$
So, average is **23**

c. 6, 8, 12, 16
Sum of numbers = 6 + 8 + 12 + 16 = 42
Number of numbers = 4
\ Average = $\frac{\text{Sum of Values}}{\text{number of values}} = \frac{42}{4} = 10.5$
So, average is **10.5**

d. 12 kg, 15 kg, 18 kg
Total weight = 12 kg + 15 kg + 18 kg = 45 kg
Number of weight = 3
\ Average = $\frac{45 \text{ kg}}{3}$ = 15 kg
So, the average weight is **15 kg**.

e. 5 cm, 10 cm, 15 cm, 20 cm
Sum of lengths = 5 cm + 10 cm + 15 cm + 20 cm = 50 cm
Number of lengths = 4

\ Average = $\frac{\text{Sum of lengths}}{\text{number of lengths}} = \frac{50\text{cm}}{4} = 12.5$ cm

So, the average of lengths is **12.5 cm**

f. ` 23, ` 36, ` 19, ` 22, ` 10

Sum of Rupees = ` (23 + 36 + 19 + 22 + 10) = ` 110

number of rupees = **5**

\ Average of rupees = $\frac{\text{Sum of rupees}}{\text{number of rupees}} = ` \frac{110}{5} = ` 22$

So, the average is ` **22**

2. Solve these problems.

Ans. a. Sum of first 7 multiples of 8 = 8 + 16 + 24 + 32 + 40 + 48 + 56 = 224

number of multiples = 7

\ Average = $\frac{\text{Sum of number}}{\text{number of multiples}} = \frac{224}{7} = 32$

So, the average is **32**

b. Average of 6 numbers = 492

\ Their total = average × number = 492 × 6 = 2952

So, the total of 6 numbers is **2952**.

c. Sum of goods worth = ` (6,000 + 4,500 + 3,500 + 3,000 + 4,000) = ` 21,000

Number of goods = 5

\ Average sale = $\frac{\text{Sum of good worth}}{\text{number of goods}} = ` \frac{21{,}000}{5} = ` 4200$

So, the average sale of the shopkeeper is ` 4200

d. Total of rainfall = (2.2 + 3.4 + 0.6 + 1.8) cm = 8.0 cm

Number of days = 4 days

Average of daily rainfall = $\frac{\text{Total of rainfall}}{\text{number of Days}} = \frac{8.0}{4}$cm = 2.0 cm

Therefore, 2.0 cm was the daily rainfall.

e. Total of all even numbers between 21 and 41

= 22 + 24 + 26 + 28 + 30 + 32 + 34 + 36 + 38 + 40 = 310

Number of even numbers = 10

\ Average = $\frac{\text{Total of number}}{\text{number of numbers}} = \frac{310}{10} = 31$

So, the average is 31 which is a odd number.

f. Total marks = 12 + 18 + 9 + 11 + 7 + 14 + 6 = 77

Number of students = 7

\ Average marks = $\frac{\text{Total marks}}{\text{Number of students}} = \frac{77}{7} = 11$

So, the average marks is 11

g. In 1 hour the bus covers = 46 km

In 7 hours the bus will cover = 46 × 7 = 322 km

So, the bus will cover **322 km** distance in 7 hours.

h. Total runs scored = Average × number of matches.

Average = 73 runs and number of matches = 5

\ Total runs scored = 73 × 5 = 365 runs.

So, Vineet scored **365** runs altogether.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. a. 3. c. 4. c. 5. a.

Percentage

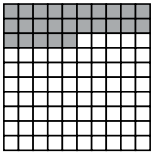
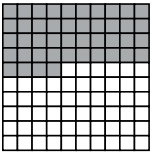
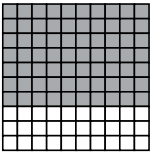
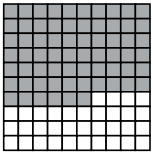
10

Let's Review

1. Find the percentage of the shaded portion in each of the following. All of them have 100 equal divisions :

Ans. a. 53% b. 21% c. 79% d. 83%

2. There are 100 equal divisions in the following figures. Shade the indicate portion :

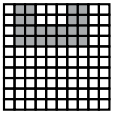
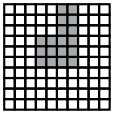
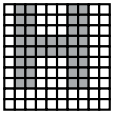
Ans. a.  b.  c.  d. 

Higher Order Thinking skills

Ans. 2. $\frac{1}{10}$, 0.1, 10% 3. $\frac{3}{10}$, 0.3, 30% 4. $\frac{4}{10}$, 0.4, 40%

Exercise 10.1

1. What percentage of the square is shaded?

Ans. a.  b.  c. 

$\frac{22}{100}$ = 22 % $\frac{18}{100}$ = 18 % $\frac{38}{100}$ = 38 %

2. Write the following fractions as percentage.

Ans. a. $\frac{25}{100}$ = 25% b. $\frac{40}{100}$ = 40% c. $\frac{60}{100}$ = 60% d. $\frac{50}{100}$ = 50%

3. Write the following percentage as fraction.

Ans. a. $\frac{60}{100} = \frac{3}{5}$ b. $\frac{35}{100} = \frac{7}{20}$ c. $\frac{45}{100} = \frac{9}{20}$ d. $\frac{85}{100} = \frac{17}{20}$

4. Write the following decimal fraction as percentage.

Ans. a. $\frac{5.8}{100}$ = 5.8% b. $\frac{43}{100}$ = 43% c. $\frac{32}{100}$ = 32% d. $\frac{85}{100}$ = 85%

5. Write percentage as decimal fraction.

Ans. a. $\frac{62}{100}$ = 0.62 b. $\frac{83}{100}$ = 0.83 c. $\frac{35}{100}$ = 0.35 d. $\frac{26}{100}$ = 0.26

Exercise 10.2

1. Solve as directed :

Ans. a. $\frac{80}{100} \times 120 = 8 \times 12$ m = 96 m

So, 80% of 120 m = **96 m**

b. $\frac{25}{100} \times 140 \text{ g} = \frac{\cancel{25}^{1}}{\cancel{100}_{4}} \times 140 \text{ g} = 35 \text{ g}$

So, 25% of 140 g = **35 g**

c. $\frac{20}{100} \times 1500 \text{ kg} = \frac{20 \times 1500}{100} \text{ kg} = 300 \text{ kg}$

So, 20% of 1500 kg = **300 kg**

d. $\frac{21}{100} = \times 200 = \frac{21 \times 200}{100} = 42$

So, 21% of 200 = **42**

e. $\frac{6}{100} = \times 1000 \text{ L} .= \frac{6 \times 1000}{100} \text{ L} = 60 \text{ L}$

So, 6% of 1000 L = **60 L**

f. $\frac{10}{100} \times$ ` 500 = ` $\frac{10 \times 500}{100}$ = ` 50

So, 10% of ` 500 = ` **50**

2. Solve as directed :

Ans. a. ` 30 of ` 150

$= \frac{`30}{150} = \frac{3}{15}$

$\backslash \frac{3}{15} = \frac{\cancel{3}^{1}}{\cancel{15}_{5}} \times 100\ \%$

= **20%**

b. 22 of 44

$= \frac{22}{44} = \frac{\cancel{22}^{1}}{\cancel{44}_{2}} \times 100\%$

= **50%**

c. 250 g of 1200 g

$= \frac{250 \text{ g}}{1200 \text{ g}} = \frac{\cancel{10}^{5}}{\cancel{48}_{12}} \times \frac{25}{\cancel{100}} \%$

$= \frac{5 \times 25}{6} \% = \frac{125}{6} \%$

= **20.83%**

d. 5.6 m of 560 cm

= 5.6 m of 5.6 m

$= \frac{5.6 \text{ m}}{5.6 \text{ m}} \times 100\% = \frac{1}{1} \times 100\%$

= **100%**

e. 60 kg of 150 kg

$= \frac{60 \text{ kg}}{150 \text{ kg}} = \frac{2}{5} \times \frac{20}{\cancel{100}}\%$

= **40%**

f. 86 L of 2580 L

$= \frac{86\text{L}}{2580\text{L}} = \frac{43}{1290} \times 100\%$

$= \frac{\cancel{43}^{1}}{\cancel{1230}_{30}} \times 100\%$

$= \frac{100}{30} \% = 3.33\%$

3. Solve.

Ans. a. Salary of preet = ` 24000 per month

His saving = 28% of ` 24000 = $\frac{` 24000 \times 28}{100}$

= ` 6,720 per month

Her expenditure = ` (24,000 – 6,720) = ` 17,280

50, Preet spends ` **17,280** every month.

b. Number of student = 40
Number of present students = 35% of 40 = $\frac{\cancel{35}^{7}}{\cancel{100}_{5}} \times \cancel{40}^{2}$
= 14 students
Number of absent students = 40 – 14 = 26 students
So, on the rainy day 26 students were absent.

c. Suresh got 89% marks out of 750 marks
$= \frac{89}{\cancel{100}_{2}} \times \cancel{750}^{15} = \frac{1335}{2} = 667.5$ marks
So, Suresh got **667.5 marks**

d. Income of Ansh = ` 9000
His expenditure on paying bill = 20% of ` 9000
$= \frac{\cancel{20}^{1}}{\cancel{1000}_{5}} \times$ ` $\cancel{9000}^{1800}$ = ` 1800
His expenditure for paying groceries = 15% of ` 9000
$= \frac{15}{\cancel{100}} \times$ ` $90\cancel{00}$ = ` 1350
Total expenditure on bills and groceries = ` (1800 + 1350) = ` 3150
So, ` 3,150 are spent on bills and groceries by Ansh.

e. Anju's weight = 63 kg
14% of 63 kg = $\frac{14}{100} \times 63 = \frac{882}{100}$ kg = 8.82 kg
\ Manju's weight = 63 kg + 8.82 kg = 71.82 kg
So, Manju's weight is **71.82 kg**

f. Population of the village = 2400
Number of children = 12% of 2400 = $\frac{12}{\cancel{100}} \times 24\cancel{00} = 288$
Number of Adults = 2400 – 288 = 2112
So, number of Adults in the village is 2112

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. c. 3. a. 4. c.

Profit, Loss and Simple Interest

11

Let's Review

Compare the following and tick (3) the best deal :

Ans.

1.	3 kg		for ` 30	◯	4 kg		for ` 38	3
2.	8 kg		for ` 260	3	5 kg		for ` 163.75	◯
3.	12		for ` 60	3	16		for ` 96	◯
4.	9		for ` 202.50	◯	12		for ` 264	3
5.	20		for ` 275	◯	25		for ` 300	3

Exercise 11.1

1. Find the profit or loss.

Ans.

S.N	Cost Price	Selling Price	Profit	Loss
a.	` 5,000	` 6,000	**`1000**	—
b.	` 12,000	` 10,000	—	**`2,000**
c.	` 1,800	` 2,400	**`600**	—
d.	` 5,400	` 7,200	**`1800**	—
e.	` 9,100	` 8,000	—	**`1,100**

2. Fill in the blanks.

Ans.

S.No.	C.P.	S.P.	P	L
a.	` 2,400	` **2,800**	` 400	—
b.	` **1,650**	` 1,590	—	` 60
c.	` **2800**	` 2,900	` 100	—
d.	` 1,900	` **1,600**	—	300
e.	` 4,100	` **4,400**	` 300	—

3. Solve these story problems.

Ans.

a. Selling price of a pen ` 22.00
Cost price of it = ` 17.50
SP > CP, there fore, profit = ` (22.00 – 17.50) = ` 4.50
So, profit of Ritesh is ` **4.50**

b. Selling price of a mobile phone = ` 3,629
Cost price of a mobile phone = ` 2,675
SP > CP there fore, profit = ` (3629 – 2675) = ` 954
So, Arman's profit is ` **954**

c. Selling price of book = ` 360
Profit = ` 85
\ The cost price of a book = SP – Profit = ` (360 – 85) = ` **275**
So, the cost price of a book was ` **275**

d. The cost price of a fan = ` 725
Loss = ` 50
The selling price of a fan = cost price – loss = ` (725 – 50)
= ` 675
So, the selling price of a fan is ` **675**

e. The cost price of a cycle = ` 1695
Profit = ` 825
The selling price of a cycle = CP + Profit = ` (1695 + 825)
= ` 2520
So, the selling price of a cycle is ` **2520**

f. The cost price of a radio = ` 740
Loss = ` 95
The selling price of a radio = CP – Loss = ` (740 – 95)
= ` 645
So, Mr Thomson sold a radio for ` **645**.

Exercise 11.2

1. Fill in the blanks.

Ans.

Principal	Rate of interest	Time of deposit	Interest	Amount
a. ` 1800	5%	2 years	` **180**	` **1,980**
b. ` 560	8%	10 years	` **448**	` **1,008**
c. ` 2500	10%	5 years	` **1,250**	` **3,750**
d. ` 6500	12%	3 years	` **2,340**	` **8,840**
e. ` 15000	11%	2 years	` **3,300**	` **18,300**

2. Find the interest and the amount for 1 year when the principal and the rate of interest are given to you.

Ans. a. P = ` 10,000, R = 3%

Principal (P) = `10,000, Rate (R) = 3% and Time (T) = 1 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{10{,}000 \times 3 \times 1}{100}$ = ` 300

Amount = Principal + Interest = ` 10,000 + ` 300 = ` 10,300

So, Interest = ` 300 and Amount ` 10,300

b. P = ` 1,500, R = 7%

Principal (P) = ` 1,500, Rate (R) = 7% and Time (T) = 1 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{1500 \times 7 \times 1}{100}$ = ` 105

Amount = Principal + Interest = ` 1500 + ` 105 = ` 1605

So, Interest = ` 105 and Amount ` 1605

c. P = ` 2,500, R = 12%

Principal (P) = ` 2500, Rate (R) = 12% and Time (T) = 1 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{2500 \times 12 \times 1}{100}$ = ` 300

Amount = Principal + Interest = ` 2,500 + ` 300 = ` 2800

So, Interest = ` 300 and Amount = ` 2800

d. P = ` 14,000, R = 8%

Principal (P) = ` 14,000, Rate (R) = 8% and Time (T) = 1 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{14000 \times 8 \times 1}{100}$ = ` 1120

Amount (A) = P + SI = ` 14,000 + ` 1,120 = ` 15,120

So, Interest = ` 1120 and Amount = ` 15,120

e. P = ` 2,800, R = 10%

Principal (P) = ` 28,00 Rate (R) = 10% and Time (T) = 1 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{2800 \times 10 \times 1}{100}$ = ` 280

Amount (A) = P + SI = ` 2800 + ` 280 = ` 3080

So, Interest = ` 280 and Amount = ` 3080

f. P = ` 2000, R = 5%

Principal (P) = ` 2,000, Rate (R) = 5% and Time (T) = 1 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{2000 \times 5 \times 1}{100}$ = ` 100

Amount (A) = P + SI = ` 2,000 + ` 100 = ` 2100

So, Interest = ` 100 and Amount = ` 2100

3. Find the interest and the amount when.

Ans. a. P = ` 10,000, R = $6\frac{1}{2}$%, T = 4 years

Principal (P) = ` 10,000, Rate (R) = $6\frac{1}{2}$ % = $\frac{13}{2}$ %,

Time (T) = 4 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{10000 \times 13 \times 4^{2}}{100 \times 2}$ = ` 2600

Amount (A) = P + SI = ` 10,000 + ` 2,600 = ` 12,600

So, Interest = ` 2600 and Amount = ` 12,600

b. P = ` 1,000, R = $2\frac{1}{2}$%, T = 3 years

Principal (P) = ` 1,000, Rate (R) = $2\frac{1}{2}$% = $\frac{13}{2}$ %,

Time (T) = 3 year

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{1000^{5} \times 5 \times 3}{100 \times 2_{1}}$ = ` 75

Amount = P + SI = ` 1000 + ` 75 = ` 1,075

So, Interest = ` 75 and Amount = ` 1,075

c. P = ` 2,500, R = $12\frac{1}{2}$ %, T = 10 years

Principal (P) = ` 2,500, Rate (R) = $12\frac{1}{2}$ % = $\frac{25}{2}$%,

Time (T) = 10 years

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{2500 \times 25 \times 10^{5}}{100 \times 2_{1}}$ = ` 3,125

Amount (A) = P + SI = ` 2,500 + ` 3,125 = ` 5,625

So, Interest = ` 3,125 and Amount = ` 5,625

d. P = ` 750, R = 5%, T = $2\frac{1}{2}$ years

Principal (P) = ` 750, Rate (R) = 5 % and

Time (T) = $2\frac{1}{2}$ years = $\frac{5}{2}$ years

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{750 \times 5 \times 5}{100 \times 2_{1}}$ = ` 93.75

Amount (A) = P + SI = ` 750 + ` 93.75 = ` 843.75

So, Interest = ` 93.75 and Amount = ` 843.75

e. Principal (P) = ` 5,000, Rate (R) = 10% and

Time (T) = $3\frac{1}{2}$ years = $\frac{7}{2}$ years

$\therefore$ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{5000 \times 10 \times 7}{100 \times 2_{1}}$ = ` 1750

Amount (A) = P + SI = ` 5,000 + ` 1,750 = ` 6750

So, Interest = ` 1750 and Amount = ` 6,750

f. P = ` 1,5000, R = 5%, T = $7\frac{1}{2}$ years
Principal (P) = ` 15,000, Rate (R) = 5% and
Time (T) = $7\frac{1}{2}$ years = $\frac{15}{2}$ years
\ Interest (SI) = $\frac{P \times R \times T}{100}$ = ` $\frac{\overset{75}{\cancel{15000}} \times 5 \times 15}{\cancel{100} \times \cancel{2}_{1}}$ = ` 5625
Amount (A) = P + SI = ` 15,000 + ` 5,625 = ` 20,625
So, Interest = ` 5,625 and Amount = ` 20,625

4. Solve these problems.

Ans. a. Principal (P) = ` 12,000, Time = 5 years and Rate (R) = $6\frac{1}{2}$ %
= $\frac{13}{2}$ % per annum.
Simple Interest (SI) = $\frac{P \times R \times T}{100}$ = $\frac{\overset{60}{\cancel{12000}} \times 13 \times 15}{\cancel{100} \times \cancel{2}}$ = ` 3900
So, Simple Interest will be ` **3900**

b. Principal (P) = ` 3,500, Time (T) = 3 years and Rate (R) = 7%
Simple Interest (SI) = $\frac{P \times R \times T}{100}$ = $\frac{\cancel{3500} \times 7 \times 3}{\cancel{100}}$ = ` 735
So, Priyanka got interest ` 735 after 3 years

c. Principal (P) = ` 70,000, Time (T) = 6 years, Rate (R) = 11% per annum
Simple Interest (SI) = $\frac{P \times R \times T}{100}$ = $\frac{\cancel{70000} \times 6 \times 11}{\cancel{100}}$ = ` 46200
So, Ayush will have to pay ` 46,200 as interest.

d. Principal (P) = ` 4500, Rate (R) = 12% per year, Time (T) = 5 years
Simple interest (SI) = $\frac{P \times R \times T}{100}$ = $\frac{\cancel{4500} \times 12 \times 5}{\cancel{100} \times 2}$ = ` 2700
Amount = P + SI = ` 4,500 + ` 2,700 = ` 7,200
So, Vivak will repay ` 7,200 at the end of 5 years.

Higher Order Thinking skills

Ans. C.P. = ` 160 S.P. = ` 144 + ` 32 = ` 176
\ Gain = S.P. – C.P. = ` 176 – ` 160 = ` 16

PLAY TIME

Aman and Arman went separately to the weekly market with their mothers to purchase fruits and vegetable. They bought the following different prices. Who bought the items cheaper.

Ans. Arman bought the items cheaper.

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. a. 3. b. 4. b.

Let's Review

1. Identify the line, line segment and ray and write their name in the correct box :

Ans. a. Ray b. Line c. Line Segment
d. Ray e. Line f. Line Segment

Exercise 12.1

1. Complete the following table by writing properties of a line, a ray and a line segment.

Ans.

	Line segment	Ray	Line
End points	**Two**	**One**	**No**
Width	**No**	**No**	**No**
Length	**Yes**	**Indefinite**	**Indefinite**

2. How many line can you draw through :

Ans. a. unlimited b. only one

3. An figure, name the line segments which are

Ans. a. AB || DC and AD || BC
b. Line DA, CA, BA; Line AB, DB, CB and line BC, DC, AC

4. State true (T) or false (F) :

Ans. a. False b. False c. False d. True
e. True

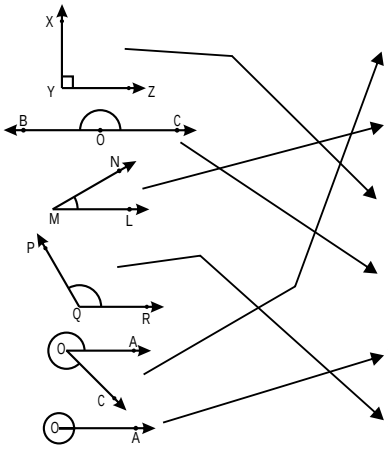
Higher Order Thinking skills

Ans. There are three angles ⟌AOC, ⟌AOB and ⟌BOC. Yes all angles have a common vertex which is point o.

Exercise 12.2

1. Match the following :

Ans.



i. Reflex angle
ii. Acute angle
iii. Right angle
iv. Straight angle
v. Complete angle
vi. Obtuse angle

2. From the given figure, list the points which are :

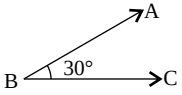
Ans. a. point S and point T b. point Q and point P
c. point X and point Y

3. Measure the following angles using a protractor.

Ans. Do it yourself

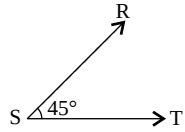
4. Draw the following angles using a protractor. Name the angles correctly :

Ans. a.



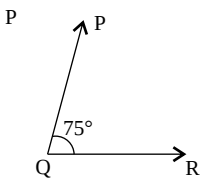
? ABC = 30°

b.



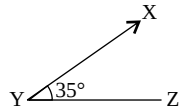
? RST = 45°

c.



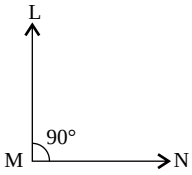
? PQR = 75°

d.



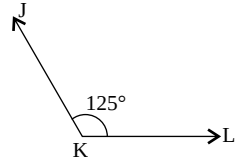
? XYZ = 35°

e.



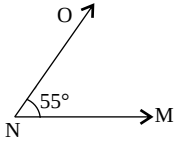
? LMN = 90°

f.



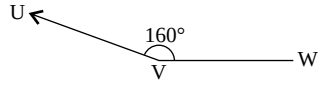
? JKL = 125°

g.



? MNO = 55°

h.



? UVW = 160°

PLAY TIME

Study the figure given below and write the measures of the angles listed.

Ans. a. 50° b. 130° c. 20° d. 131°
e. 80° f. 101° g. 70° h. 150°
i. 30° j. 30°

MULTIPLE CHOICE QUESTIONS

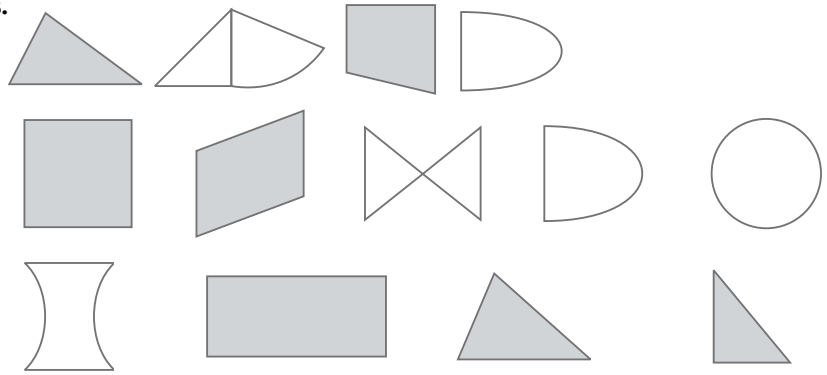
Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. b.

Let's Review

Colour the polygons in the following :

Ans.



Higher Order Thinking skills

Name and classify the triangles.

Ans. 1. Scalene Triangle 2. Right angled Triangle

Exercise 13.1

1. Say 'Yes' or 'No' :

Ans. a. No b. Yes c. No d. No
e. No f. Yes

2. In ? ABC, Name.

Ans. a. AB, BC, CA b. A, B, C c. —A, —B, —C

3. Classify the triangles according to the measurement of their sides.

Ans. a. Equilateral triangle b. Scalene triangle
c. Right angled triangle d. Scalene triangle
e. Equilateral triangle f. Isosceles triangle

4. Classify the triangles according to their angles.

Ans. a. obtuse angled triangle b. acute angled triangle
c. right angled triangle d. right angled triangle
e. acute angled triangle f. obtuse angled triangle

5. Find the missing angle in each triangle.

Ans. a. In —LMN, —M =110° and —N = 20°
—L + —M + —N = 180°
\ —L = 180° – (—M + —N) = 180° – (110° + 20°)
= 180° – 130° = **50°**
So, the missing —L is 50°

b. In —ABC, —B = 90° and —C = 30°
—A + —B + —C = 180°
\ Missing —A = 180° – (—B + —C) = 180° – (90° + 30°)
= 180° – 120° = **60°**
So, the missing —A is 60°.

c. In $\triangle PQR$, $\angle P = 70°$ and $\angle Q = 60$
$\angle P + \angle Q + \angle R = 180°$
$\therefore$ Missing $\angle R = 180° - (\angle P + \angle Q)$
$= 180° - (70° + 60°) = 180° - 130° = 50°$
So, the missing $\angle R$ is **50°**

6. Which angles can make a triangle?

Ans. a. Sum of 20°, 70°, 90° = 20° + 70° + 90° = 180°
So, 20°, 70° and 90° **can make a triangle**.
b. Sum of 80°, 90° and 60° = 80° + 90° + 60° = 230° > 180°
So, 80°, 90° and 60° **can not make a triangle**.
c. Sum of 90°, 30° and 90° = 90° + 30° + 90° = 210° > 180°
So, 90°, 30° and 90° **can not make a triangle**.
d. Sum of 110°, 50° and 50° = 110° + 50° + 50° = 210° > 180°
So, 110°, 50° and 50° **can not make a triangle**.
e. Sum of 60°, 60° and 60° = 60° + 60° + 60° = 180°
So, 60°, 60° and 60° **can make a triangle**.
f. Sum of 30°, 20° and 110° = 30° + 20° + 110° = 160° < 180°
So, 30°, 20° and 110° **can not make a triangle**.

7. In $\triangle ABC$, $\angle A = 72°$ and $\angle B = 68°$. Find $\angle C$.

Ans. In $\angle ABC$, $\angle A = 72°$ and $\angle B = 68°$
$\therefore \angle C = 180° - (\angle A + \angle B) = 180° - (72° + 68°) = 180° - 140° = 40°$
So, in $\angle ABC$, **$\angle C$ is 40°**

8. The measures of two angles of a triangle are 95° and 72°. Find the third angle.

Ans. Two angles of a $\triangle$ are 95° and 72°.
Sum of them = 95° + 72° = 167°.
So, third angle = 180° – (sum of two angles) = 180° – 167° = 13°
So, the third angle of the triangle is **13°**

9. One of the acute angles of a right angled triangle is 42°. Find the other acute angle.

Ans. In a triangle, one angle is 90° and other angle is 42°
Sum of two angles = 90° + 42° = 132°
So, third angle = 180° – (sum of two angles) = 180° – 132° = 48°
So, the other acute angle or third angle is **48°**

10. Two angles of a triangle are equal. If the measure of the third angle is 116°. Find the measure of each of the equal angles.

Ans. In a triangle, third angle is 116°.
Sum of other two angles = 180° – third angle = 180° – 116° = **64°**
Other two angles are equal
So, each of the equal angles = $\frac{64°}{2} = 32°$
So, each equal angle is **32°**

11. Fill in the blanks :

Ans. a. A triangle has **three** vertices, **three** angles and **three** sides.
b. Each angle of an equilateral triangle measures **60°**.

c. If two sides of a triangle are equal to each other, then the triangle is called an **isosceles** triangle.
d. A triangle is called acute angled triangle if all of its angles are **less than 90**.
e. A triangle is called right-angled if one of its angles is a **right** angle.

Exercise 13.2

1. Fill in the blanks :

Ans. a. Opposite sides of a parallelogram are equal.
b. A quadrilateral with only one pair of opposite sides parallel is called trapezium.
c. A rhombus has all the sides equal.
d. Only the opposite sides of a rectangle are equal.
e. Each angle of a square is 90°.
f. The sum of the four angles of a quadrilateral is 360°.

2. Find the missing angle for the given quadrilaterals :

Ans. a. In quadrilateral ABCD —A = 100°, —B = 65° and —C = 80°
—A + —B + —C + —D = 360°
100° + 65° + 80° + —D = 360°
245° + ÐD = 360°
\ —D = 360° – 245° = 115°
So, the missing angle D is **115°**.

b. In quadrilateral PQRS —P = 75°, —Q = 135° and —R = 50°
—P + —Q + —R + —S = 360°
75° + 135° + 50° + —S = 360°
260° + ÐS = 360°
\ —S = 360° – 260° = 100°
So, the missing angle S is **100°**

c. In quadrilateral WXYZ —W = 64°, —X = 138° and —Y = 110°
—W + —X + —Y + —Z = 360°
64° + 138° + 110° + —Z = 360°
312° + —Z = 360°
\ —Z = 360° – 312° = 48°
So, the missing angle Z is **48°**

d. In quadrilateral LMNO —L = 45°, —M = 90° and —N = 130°
—L + —M + —N + —O = 360°
45° + 90° + 130° + —O = 360°
265° + —O = 360°
\ —O = 360° – 265° = 95°

e. In quadrilateral PQRS —P = 65°m —Q = 40° and —R = 90°
—P + —Q + —R + —S = 360°
65° + 40° + 90° + —S = 360°
195° + —S = 360°
\ —S = 360° – 195° = 165°
So, the missing angles is **165°**.

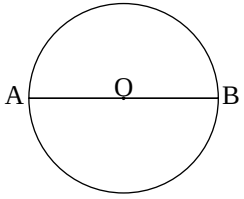
Exercise 13.3

1. A circle is given in the adjoining figure. Fill in the blanks by observing the figure :

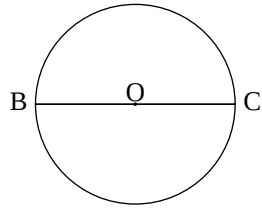
Ans. a. The centre of the circle is **C**.
b. The diameter of the circle are **AB**, **EF**.
c. Radii of the circle are **CE**, **CB**, **CK**, **CF**, **CA**.
d. The line segment between two points G and H is a **GH**.
e. Chords of the circle are **EB**, **AB**, **EF**, **AF**.

2. Draw circles with the following radii using a compass.

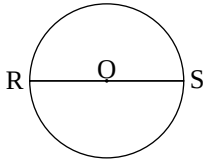
Ans. a. Point O is centre
Radic AO = OB = 5 cm



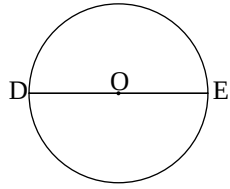
b. Point O is centre
Radic OB = OC = 6 cm



c. Point O is centre
Radic RO = OS = 2.5 cm



d. Point O is centre
Radic DO = EO = 7.6 cm



3. Find the radius of the circles with the following diameter.

Ans. a. 7 cm
Diameter (d) = 7 cm
\ Radius (r) = $\frac{d}{2} = \frac{7}{2} = 3.5$ cm
So, the radius of circle is 3.5 cm

b. 8 cm
Diameter (d) = 8 cm
\ Radius r = $\frac{d}{2}$ $\frac{8}{2}$ 4 cm
So, the radius of circle is 4 cm

c. 4.8 cm
Diameter (d) = 4.8 cm
\ Radius (r) = $\frac{d}{2} = \frac{4.8}{2} = 2.4$ cm
So, the radius of circle is 2.4 cm

d. 7.2 cm
Diameter (d) = 7.2 cm
\ Radius (r) = $\frac{d}{2} = \frac{7.2}{2} = 3.6$ cm
So, the radius of circle is 3.6 cm

4. Find the diameter of the circles with the following radii.

Ans. a. Radius of the circle = 6 cm

\ Diameter of the circle = 2 × radius = 2 × 6 = 12 cm

So, the diameter of the circle is 12 cm.

b. Radius of the circle = 4.5 cm

\ Diameter of the circle = 2 × radius = 2 × 4.5 = 9.0 cm

So, the diameter of the circle is 9 cm.

c. Radius of the circle = 3.8 cm

\ Diameter of the circle = 2 × radius = 2 × 3.8 = 7.6 cm

So, the diameter of the circle is 7.6 cm.

d. Radius of the circle = 11.7 cm

\ Diameter of the circle = 2 × radius = 2 × 11.7 = 23.4 cm

So, the diameter of the circle is 23.4 cm.

PLAY TIME

• **Fill in the blanks.**

Ans. 1. Isosceles triangle 2. 180° 3. equal, parallel
4. centre 5. 90° 6. parallelogram
7. equal

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct option :

Ans. 1. a. 2. a. 3. a. 4. c. 5. c.

Symmetry and Patterns

14

Let's Review

1. Complete the number sequence using the suitable pattern.

Ans. a. 5, 10, 15, 20, **25**, **30**, **35**

b. 1, 4, 9, 16, **25**, **36**, **49**

c. 5, 15, 25, 35, **45**, **55**, **65**

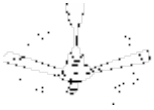
d. 8, 27, 64, 125, **216**, **343**, **512**

2. Colour the symmetrical figures.

Ans. a. 

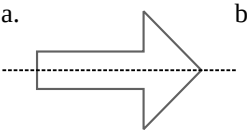
b. 

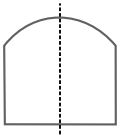
c. 

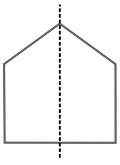
d. 

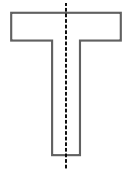
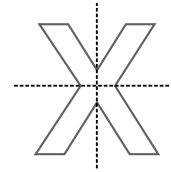
Exercise 14.1

1. Draw the lines of symmetry for these shapes.

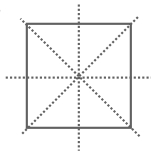
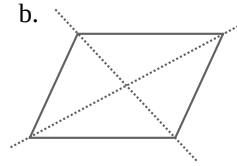
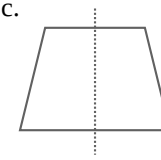
Ans. a. 

b. 

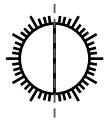
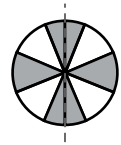
c. 

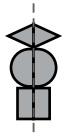
d.  e.  f. 

2. Find the number of lines of symmetry in each of the following shapes.

Ans. a.  b.  c. 

3. Complete the figures treating the dotted line as the line of symmetry.

Ans. a.  b.  c. 

d.  e.  f  .

Turns

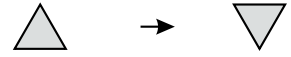
Ans. 1. 1 right angle makes a $\frac{1}{4}$ **of a** turn.

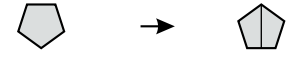
2. 2 right angles make a $\frac{1}{2}$ of a turn.

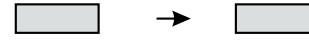
3. 4 right angles make a **complete** of a turn.

Exercise 14.2

1. Give each shape half a turn.

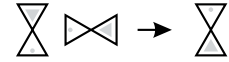
Ans. a.  b. 

c.  d. 

e.  f. 

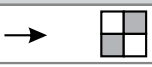
2. What will comes next?

Ans. a.  b. 

c.  d. 

3. Give each shape quarter turn to complete the pattern.

Ans.

	SHAPE	$\frac{1}{2}$ Turn	$\frac{1}{4}$ Turn
a.			
b.			
c.			
d.			

Exercise 14.3

1. Put a △ around a triangular number and a □ around a square number.

Ans.

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

a. 10 b. 33 c. 3

2. Look at the pattern and fill in the blanks.

Ans. a. 1 + 3 + 5 + 7 + **9** = 25

b. 1 + 3 + 5 + 7 + 9 + 11 + **13** + 15 = 64

c. 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 = **100**

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. a. 3. a.

Measurement of Length, Weight and Capacity

15

Let's Review

1. Tick (3) the suitable unit to measure the following :

Ans.

a. Length of a pen  (mm, cm, m) 3

b. Height of a side table  (cm, km, m) 3

c. Weight of some mangoes  (kg, km, mg) 3

d. Weight of a gold coin  (mm, g, km) 3

e. A can of cold drink  (L, g, mL) 3

2. Fill in the blanks :

Ans. a. 4 m = **400** cm b. 15 kg = **15000** g
c. 7 m 15 cm = **715** cm d. 4300 mL = **4** L **300** mL

Think And Do

Fill in the blanks.

Ans. 1. 425000 2. 360 3. 98 4. 0.0726

Exercise 15.1

1. Convert.

Ans. a. 17.08 km = 17.08 × 1000 m = **17080 m**

b. 13.05 m = $\frac{13.05}{100}$ hm = **0.1305 hm**

13.05 m = $\frac{13.05}{10}$ dam = **1.305 dam**

c. 915 cm = $\frac{915}{100}$ m = **9.15 m**

d. 1.76 m = $\frac{1.76}{10}$ dam = **0.176 dam**

e. 4.09 km = 4.09 × 100 dam = **409 dam**

f. 13.78 hm = 13.78 × 100 m = **1378 m**

g. 5217 m = $\frac{5217}{1000}$ km = 5.217 km

h. 3869 m = $\frac{3869}{1000}$ km = 3.869 km

3869 m = $\frac{3869}{100}$ hm = 38.69 hm

3869 m = $\frac{3869}{10}$ dam = 386.9 dam

i. 700 cm = $\frac{700}{1000}$ dam = 0.7 dam

2. Convert the following metric measure :

Ans. a. 22 hg = 22 × 100 g = 2200 g

b. 7 g = $\frac{7}{1000}$ kg = 0.007 kg

c. 659 g = $\frac{659}{1000}$ kg = 0.65 kg

d. 750 cg = $\frac{750}{100}$ g = 7.5 g

e. 23 dag 96 cg = 23 dag + 96 cg = 23 dag + $\frac{96}{1000}$ dag
= 23 dag + 0.096 dag = 23.096 dag

f. 17 dg 6 mg = 17 dg + 6 mg = 17 dg + $\frac{6}{100}$ dg
= 17 dg + 0.06dg = 17.06 dg

3. Convert the following :

Ans. a. 36 L = 36 × 100 CL = **3600 CL**

b. 7800 mL = $\frac{7800}{1000}$ L = **7.8 L**

c. 52 hL 45 dL = 52 h + 45 dL = 52 × 1000 dL + 45 dL
= **(52000 + 45) dL = 52045 dL**

d. 30 dL 5 mL = 30 dL + $\frac{5}{10}$ dL = 30 dL + 0.5 dL = (30 + 0.5) dL
= **30.5 dL**

e. 99 dL = $\frac{99}{10000}$ kL = **0.0099 kL**

f. 26 L 375 mL = 26 L = 26 L + 375 mL × 1000 mL + 375 mL = 26000 mL + 375 mL = **26375 mL**

Think And Do

Fill in the blanks.

Ans. 1. **5000** 2. **0.5** 3. **0.05** 4. **50**
5. **5** 6. **5**

Exercise 15.2

1. Add the following metric measures :

Ans. a.

m	cm
9	6
+ 8	0 7
1 0 4	3 2

b.

g	mg
2 4	1 7 5
+1 6	0 2 8
4 0	2 0 3

c.

KL	L
9	1 2 5
+ 6	2 4 8
1 5	3 7 3

2. Subtract :

Ans. a.

m	cm
1 ~~8~~	~~6~~ 5
– 1 6	9 5
1	7 0

b.

g	mg
3 4	1 0 5
– 8	0 9 6
2 6	0 0 9

c.

KL	L
2 5	1 2 0
– 1 4	2 5 0
1 0	8 7 0

3. Add the following :

Ans. a. Add 9.61 kg and 6.750 kg
\ 9.61 kg + 6.750 kg = **16.360 kg**

9 . 6 1 0	kg
+ 6 . 7 5 0	kg
1 6 . 3 6 0	kg

b. Add 9 kg 660 g, 18 kg 65 g
\ 9 kg 660 g + 18 kg 65 g = **27 kg 725 g**

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

c. Add 59 kL 35 L, 80 kL 10 L
\ 59 kL 35 L + 80 kL 10 L = **39 kL 45 L**

KL	L
5 9	3 5
+ 8 0	1 0
1 3 9	4 5

d. Add 9 cm 8 mm, 10 cm 5 mm, 6 mm
\ 9 cm 8 mm + 10 cm 5 mm + 6 mm
= **20 cm 9 mm**

cm	mm
9	8
1 0	5
+ 0	6
2 0	9

e. Add 859 km, 63 m
859 km + 63 m = 859 km 063 m
= 859 km + 0.063 km
= **859.063 km**

	Km	m
	859	000
+	0	063
	859	063

f. Add 99 L 65 mL, 90 mL, 10 L 86 mL
99 L 65 mL + 90 mL + 10 L 86 mL
= **109 L 241 mL**

	L	mL
	99	065
	0	090
+	10	086
	109	241

4. Subtract :

Ans. a. Subtract 15 L 396 mL from 17 L
17 L – 15 L 396 mL
= 1 L 604 mL

	L	mL
	⑥	⑨⑨⑩
	17	000
−	15	396
	1	604

b. 17 km 60 m from 28 km 46 m
28 km 46 m – 17 km 60 m
= 10 km 986 m

	km	m
	⑦	⑨⑭
	28	046
−	17	060
	10	986

c. Subtract 985 mL from 2 L 630 mL
2 L 630 mL – 985 mL
= 1 L 645 mL

	L	mL
	①	⑮⑫⑩
	2	630
−	0	985
	1	645

d. 31 g 4 mg, from 32 g 74 mg
32 g 74 mg – 31 g 4 mg
= 1 g 70 mg

	km	m
	32	074
−	31	004
	1	070

e. From 21 L, subtract 18 L 214 mL
21 L – 18 L 214 mL
= 2 L 786 mL

	L	mL
	①	⑨⑨⑩
	~~2 1~~	000
−	18	214
	02	786

f. 26 m 7 cm from 49 m 15 cm
49 m 15 cm – 26 m 7 cm
= 23 m 8 cm

	m	cm
	49	15
−	26	07
	23	08

g. From 19 L 780 mL subtract 12319 mL
19 L 780 mL – 12319 mL
= 19 L 780 m – 12 L 319 mL
= 7 L 461 mL

	kg	g
	②⑯	
	~~3 6~~ 8	025
−	2 7 7	000
	9 1	025

h. 277 kg from 368 kg 25 g
368 kg 25 g – 277 kg
= **91 kg 25 g**

	L	mL
		(7)(10)
	19	780
−	12	319
	7	461

Exercise 15.3

Ans. 1. Distance from Reena's house to friend's house = 2.750 km
Distance from market to friends house = 5.630 km

	km	m
	2	750
+	5	630
	8	380

\ Total distance covered by Reena in one side
= (2.750 + 5.630) km = 8.380 km
Total distance covered by Reena in both side = 2 × 8.380 km
= 16.760 km
So, the distance covered ingoing and coming back **is 16.760 km**

2. Nisha's height = 118.5 cm = **1 m 18 cm 5 mm**
Razia's height = 158.9 cm = **1 m 58 cm 9 mm**
1 m 58 cm 9 mm > 1 m 18 cm 5 mm
So Razia is taller than Nisha.
Difference between heights of both
= 1 m 58 cm 9 m – 1 m
18 cm 5 mm = 40 cm 4 m
So, Razia is 40 cm 4 m taller thant Nisha.

	m	cm	mm
	1	58	9
−	1	18	5
	0	40	4

3.

		(1)
Weight of potatoes	=	4 kg 200 g
Weight of bringals	=	2 kg 800 g
Weight of tomatoes	= +	5 kg 750 g
Total weight	=	12 kg 750 g = 12.750 kg

So, Maya purchased 12.750 kg vegetables.

4.

Quantity of milk to prepare sweets	=	17.950 L
Quantity of milk to prepare curd	=	18.695 L
Quantity of milk to make tea	= +	5.165 L
Total quantity of milk	=	41.810 L

So, 41.810 L of milk is needed.

5. Length of one roll of ribbon = 13.75 m
Length of another roll of ribbon = 1585 cm
= 15.85 m

		(1)	(1)
		13	75
+		15	85
		29	60

Total length of both roll of ribbon = (13.75 + 15.85) m
= 29.60 m
So, total length of ribbon = 29.60 m

6.

			(11)(16)
Weight of box with dry fruits = 12.650 kg	=		12650 g
Weight of dry fruits = 9 kg 800 g	= −		9800 g
Weight of empty box	=		2850 g

So, the weight of empty box is 2850 g

7. The capacity of water tank = 1000.00 L
It has water = 873.73 L
More water can be stored = 126.27 L
So, 126.27 L of more water can be stored in the tank.

Exercise 15.4

1. Multiply :

Ans. a. 6.970 km × 1.70
= 11.84900 km = **11.849 km**

$$\begin{array}{r} 6.970 \\ \times\ 1.70 \\ \hline 0000 \\ 487900 \\ 697000 \\ \hline 11.84900 \end{array}$$

b. 3.57 g × 2 = 7.14 g

$$\begin{array}{r} 3.57 \\ \times\ 2 \\ \hline 7.14 \end{array}$$

c. 6.60 cm × 5.50
= 36.3000 cm = 36.3 cm

$$\begin{array}{r} 6.60 \\ \times\ 5.50 \\ \hline 000 \\ 33000 \\ \hline 36.3000 \end{array}$$

d. 5.061 kg × 2.1
= 10.6281 kg

$$\begin{array}{r} 5.061 \\ \times\ 2.1 \\ \hline 5061 \\ 101220 \\ \hline 10.6281 \end{array}$$

e. 9.61 mg × 1.2
= 11.532 mg

$$\begin{array}{r} 9.61 \\ \times\ 1.2 \\ \hline 1922 \\ 9610 \\ \hline 11.532 \end{array}$$

f. 8.60 m × 5.2 = 44.720 m
= 44.72 m

$$\begin{array}{r} 8.60 \\ \times\ 5.2 \\ \hline 1720 \\ 43000 \\ \hline 44.720 \end{array}$$

2. Divide :

Ans. a. $9.960 \text{ g} \div 1.6 = \frac{9.960}{1.6} \text{ g}$

$= \frac{99.60}{16} \text{ g} = 6.225 \text{ g}$

$$\begin{array}{r} 6.225 \\ 16\overline{)99.60} \\ -96 \\ \hline 36 \\ -32 \\ \hline 40 \\ -32 \\ \hline 80 \\ -80 \\ \hline 0 \\ \hline \end{array}$$

b. $10956 \text{ L} \div 1.7 = \frac{10956}{1.7} \text{ L}$

$= \frac{109560}{17} \text{ L} = 6444.705 \text{ L}$

$$\begin{array}{r} 6444.705 \\ 17\overline{)109560} \\ -102 \\ \hline 75 \\ -68 \\ \hline 76 \\ -68 \\ \hline 80 \\ -68 \\ \hline 120 \\ -119 \\ \hline 100 \\ -85 \\ \hline 15 \\ \hline \end{array}$$

c. $90.674 \text{ kg} \div 0.12 = \frac{90.674}{0.12} \text{ kg}$
$= \frac{9067.4}{12} \text{ kg} = 755.616 \text{ kg}$

```
      755.61
12 ) 9067.4
   - 84
     ----
      66
    - 60
      ----
       67
     - 60
       ----
        74
      - 72
        ----
         20
       - 12
         ----
          8
```

d. $93.285 \text{ m} \div 4.5 = \frac{93.285}{4.5} \text{ m}$
$= \frac{932.85}{45} \text{ m} = 20.73 \text{ m}$

```
      20.73
45 ) 932.85
   - 90
     ----
      328
    - 315
      ----
       135
     - 135
       ----
         0
```

e. $19\text{g } 98 \text{ mg} \div 18 = 19.098 \text{ g} \div 18$
$= 1.061 \text{ g} = 7.113 \text{ km}$

```
      1.061
18 ) 19.098
   - 18
     ----
      109
    - 108
      ----
        18
      - 18
        ----
         0
```

f. $128 \text{ km } 34 \text{ m} \div 18$
$= 128.034 \text{ km} \div 18$

```
       7.113
18 ) 128.034
   - 126
     -----
        20
      - 18
        ----
         23
       - 18
         ----
          54
        - 54
          ----
           0
```

Exercise 15.5

Ans. 1. The cost of 1 m canvas = ` 197
\ The cost of 6.75 m canvas = ` 197 × 6.75
= ` 1329.75
So, the cost of 6.75 m of canvas is ` 1329.75

```
   197
 × 6.75
 -------
   985
 13790
 118200
1329.75
```

2. 1 week = 7 days
In 1 day the restaurant uses vegetables = 25.275 kg
In 7 days the restaurant uses vegetables
= 25.275 kg × 7 = 176.925 kg
So, 176.925 kg vegetables are used in a week.

```
25.275
    × 7
-------
176.925
```

3. The weight of 1 water melon = 2 kg 695 g
= 2.695 kg
\ The weight of such 13 water melons
= 2.695 kg × 13
= 35.035 kg
So, 35.035 kg will be the weight of 13 water melons.

```
  2.695
  × 13
 ------
  8085
 26950
 35035
```

4. In 32 tanks, the petrol is stored = 4242.56 L
In 1 tanks, the petrol is stored = 4242.56 L ÷ 32
= 132.58 L
So, 132.58 L of petrol is store in each tanks.

```
      132.58
32 ) 4242.56
   − 32
     104
   − 96
      82
   − 64
     185
   − 160
      256
   − 256
        0
```

5. The length of 1 saree = 5.672 m
\ The length of 50 sarees = 5.67 m × 50
= 28 3.600 m
= 28 3.6 m
So, the length of 50 sarees is 283.6 m

```
  5 . 6 7 2
      × 5 0
  ---------
    0 0 0 0
2 8 3 6 0 0
2 8 3 6 0 0
```

6. The weight of 25 toffees = 275 g
The weight of 1 toffees = 275 g ÷ 25 = 11 g
The weight of 80 toffees = 11 g × 80 = 880 g
So, the weight of 80 toffees is 880 g

```
      11
25 ) 275
   − 25
     25
   − 25
      0
```

7. A dose of a cough syrup in 1 time = 5 mL
A dose of cough syrup in 3 times in a day = 5 mL × 3
= 15 mL
In 1 day, the quantity of cough syrup is taken = 15 mL
In 15 days the quantity of cough syrup is taken = 15 mL × 15
= 225 mL
So, 225 mL of cough syrup is taken in 15 days.

```
  1 5
× 1 5
-----
2 2 5
```

8. Distance is travelled in 4 days = 1582.4 km
Distance is travelled in 1 day = 1582.4 km ÷ 4
= 395.6 km
So, 395.6 km distance is travelled in 1 day.

```
      395.6
4 ) 1582.4
   − 12
     38
   − 36
      22
   − 20
      24
   − 24
       0
```

9. In 30 days the length of road was constructed
= 28.500 km
\ In 1 day, the length of road was constructed
= 28.500 km ÷ 30
= 28500 m ÷ 30
= 950 m
950 m road was constructed in 1 day.

```
      950
30 ) 28500
   − 270
     150
   − 150
       0
   − 0
     0
```

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. b. 3. b.

Speed, Distance and Time

16

Let's Review

This graph represents the flight details of an aeroplane. Study the graph and answer the following questions.

Ans. 1. 6000 km.
2. 7000 km – 6000 km = 1000 km.
3. The average speed of the plane = 500 km/h.

Exercise 16.1

1. Find the speed in each case :

Ans. a. Distance covered = 300 km
Time taken = 4 hours

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{300 \text{ km}}{4 \text{ hours}} \quad 75 \text{ km/hr}$$

So, speed of the train is **75 km/hr**

b. A girl walks 8 km in 2 hours.
Distance covered = 8 km
Time taken = 2 hours

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{8 \text{ km}}{2 \text{ hours}} = 4 \text{ km/hr}$$

So, speed of the girl is **4 km/hr**

c. A car covers 54 km in 3 hours.
Distance covered = 54 km
Time taken = 3 hours

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{54 \text{ km}}{3 \text{ hours}} = 18 \text{ km/hr}$$

So, speed of the car is 18 km/hr

d. A cyclist covers 35 km in 5 hours.
Distance covered = 35 km
Time taken = 5 hours

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{35 \text{ km}}{5 \text{ hours}} = 7 \text{ km/hr}$$

So, speed of the cyclist 7 km/hr

2. Find the distance covered in the following cases.

Ans. a. A bus is travelling at a speed of 90 km/hr for 8 hours.
Speed = 90 km/hour
Time taken = 8 hours
Distance covered = speed × time = 90 × 8 = **720 km**
So, the distance covered by a bus is 720 km

b. A man is driving at a speed of 35 km/hr for 7 hours.
Speed = 35 km
Time taken = 7 hours

Distance covered = speed × time = 35 × 7 = 245 km

So, the distance covered by a vehicle is 245 km

3. If Plane covers 625 km in 7 hours, find its speed.

Distance covered = 625 km

Time taken = 7 hours

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{625 \text{ km}}{7 \text{ hours}} = 89.28 \text{ km/hr}$$

So, speed of the plane is 89.28 km/hr

4. Distance covered = 383.5 km

Speed of a car = 86 km/hr

$$\therefore \text{ Time taken} = \frac{\text{Distance}}{\text{Time}} = \frac{383.5}{86} = 4.45 \text{ hr}$$

So, the car will take 4.45 hr (approximate)

$$\begin{array}{r} 4.45 \\ 86\overline{)383.5} \\ -\,344 \\ \hline 395 \\ -\,344 \\ \hline 510 \\ -\,430 \\ \hline 80 \end{array}$$

5. Speed = 630 km/hr

Time taken = 2.5 hr

Distance covered = speed × time = 630 × 2.5 = 1575 km

$$\begin{array}{r} 630 \\ \times\ 2.5 \\ \hline 3150 \\ 12600 \\ \hline 1575.0 \end{array}$$

So, the aeroplane will cover 1575 km

6. Distance covered = 675 km

Speed = 25 km/hr

$$\text{Time taken} = \frac{\text{Distance}}{\text{Speed}} = \frac{675}{25} = 27 \text{ hr}$$

So, the car will cover the journey in 27 hr

7. Distance covered by car = 156 km

Time taken = 4 hr

$$\therefore \text{ Speed of car} = \frac{\text{Distance}}{\text{Time}} = \frac{156}{4} = 39 \text{ km/hr}$$

Distance covered by bus = 140 km

Time taken = 3 hours

$$\therefore \text{ speed of bus} = \frac{\text{Distance}}{\text{Time}} = \frac{140}{3} = 46.66 \text{ km/hr}$$

So, bus is running faster than car.

Exercise 16.2

1. Express in m/sec :

Ans. a. $60 \text{ km/hr} = \cancel{60}^{10} \times \frac{5}{18} \text{ m/sec} = \frac{50}{3} \text{ m/s} = 16\frac{2}{3} \text{ m/sec}$

b. $72 \text{ km/hr} = \cancel{72}^{4} \times \frac{5}{\cancel{18}_{1}} \text{ m/sec} = 20 \text{ m/sec}$

c. $198 \text{ km/hr} = \cancel{198}^{11} \times \frac{5}{\cancel{18}_{1}} \text{ m/sec} = 55 \text{ m/sec}$

d. $45 \text{ km/hr} = \cancel{45}^{5} \times \frac{5}{\cancel{18}_{2}} \text{ m/sec} = \frac{25}{2} \text{ m/sec} = 12\frac{1}{2} \text{ m/sec}$

e. $36 \text{ km/hr} = \cancel{36}^{2} \times \frac{5}{\cancel{18}_{1}} \text{ m/sec} = 10 \text{ m/sec}$

f. $108 \text{ km/hr} = \cancel{108}^{6} \times \frac{5}{\cancel{18}_{1}} \text{ m/sec} = 30 \text{ m/sec}$

2. Convert in km/hr :

Ans. a. 20 m/sec = $20 \times \frac{18}{5}$ km/h = 72 km/hr

b. 85 m/sec = $85 \times \frac{18}{5}$ km/hr = 306 km/hr

c. 120 m/sec = $120 \times \frac{18}{5}$ km/hr = 432 km/hr

d. 45 m/sec = $45 \times \frac{18}{5}$ km/hr = 162 km/hr

e. 25 m/sec $25 \times \frac{18}{5}$ km/hr = 90 km/hr

f. 95 m/sec = $\cancel{95}^{19} \times \frac{18}{\cancel{5}_{1}}$ km/hr = 342 km/hr

3. A truck travelled from Amjer to Delhi covering a distance of 370 km in 5 hours. Find the speed of the truck in m/sec.

Ans. Distance covered = 370 km = 3,70,000 m

Time taken = 5 hours = 5 × 3600 seconds = 18,000 sec

So, speed of truck = $\frac{\text{Distance}}{\text{Time}} = \frac{3,70,000}{18,000}$ = m/sec = 20.55 m/sec

So, speed of truck is 20.55 m/sec

4. Shekhar starts from his house at 7:45 am and cycles down to his school at 8:15 am. The distance of the house from school is 12 km. Find the speed of the cycle in m/sec.

Ans. Distance covered = 12 km = 12000 m

Time taken = from 7 : 45 am to 8 : 15 am = 30 minutes

= 30 × 60 sec = 1800 sec

Speed = $\frac{\text{Distance}}{\text{Time}} = \frac{12000\text{m}}{1800\text{ sec}}$ = 6.67 m/sec

So, the speed of cycle is 6.67 m/sec

5. A bicycle travels at a speed of 36 km/hr. What is its speed in m/s?

Ans. Speed of bus = 36 km/hour

= $\frac{36\text{ km}}{1\text{ hour}} = \frac{36000\text{m}}{3600\text{ sec}}$ = 10 m/sec

So, speed of bus is 10 m/sec

6. A bus travels with a speed of 54 km/hour. What is its speed in m/sec?

Ans. Speed of a bicycle = 54 km/hr

= $\frac{54\text{ km}}{1\text{ hour}} = \frac{5400\text{ m}}{3600\text{ sec}} = \frac{540}{36}$ m/sec = 15 m/sec

So, speed in m/sec is 15 m/sec

7. An aeroplane travels 2,400 km in 3 hours 20 minutes. Find its speed in :

Ans. Distance covered = 2400 km = 24,00,000 m

Time taken = 3 hours 20 minutes = 180 min + 20 min = 200 min

= $\frac{200}{60}$ hours = $\frac{10}{3}$ hours

= 200 × 60 = 12,000 seconds

a. Speed in km/hr = $\frac{\text{Distance}}{\text{Time}} = \frac{2400 \times 3}{10}$ km/hour

= 720 km/hr

b. Speed in m/min = $\frac{24,00,000 \text{ m}}{200 \text{ min}}$ = 12,000 m/minute

c. Speed in m/sec = $\frac{24,00,000 \text{ m}}{12,000}$ = 200 m/sec

8. Speed of a jet is 40 m/s. How much distance will it cover in 20 seconds?

Ans. Speed = 40 m/sec and time taken = 20 seconds

\ Distance = speed × time = 40 × 20 = 800 m

So, a jet will cover **800 m** in 20 seconds

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. c. 2. b. 3. c.

Time and Temperature

17

Let's Review

What is Saransh's everyday routine? Draw hands on the clock and write the time in 24 hours clock.

Ans.

Takes bath

Goes to school

Eats lunch

Plays

Goes to sleep

1. 

0730 hours

2. 

0800 hours

3. 

1400 hours

4. 

1800 hours

5. 

2130 hours

Exercise 17.1

1. Add.

Ans. a.

Min	Sec
①	
18	33
+ 30	42
49	15

b.

Hr	Min
①	①
42	44
+ 23	26
66	10

c.

Hr	Min	Sec
①	①	①
7	40	37
+ 2	27	38
10	08	15

d. Add 35 minutes 26 seconds and 42 minutes 52 seconds = 1 hr 18 min 18 sec

Hr	Min	Sec
①	①	①
0	35	26
+ 0	42	52
1	18	18

e. Add 12 hours 54 minutes and 7 hours 43 minutes = 20 hr 37 min

Hr	Min
⑪	
12	54
+ 7	43
20	37

f. Add 12 years 6 months and 3 years 9 months = 16 years 3 months

Year	Month
①	
12	6
+ 3	9
16	3

2. Subtract

Ans. a.

Min	Sec
⑤	⑦⓪
66	~~10~~
− 42	29
23	41

b.

Hr	Min
④⑨	⑥⓪
~~50~~	0
− 42	37
7	23

c.

Year	Month
③⑪	⑰
42	~~5~~
− 22	10
19	07

d. Subtract 13 hours 28 minutes from 16 hours 12 minutes = 2 hours 44 min

Hr	Min
⑮	⑦②
~~16~~	~~12~~
− 13	28
2	44

e. Subtract 42 minutes 38 seconds from 50 minutes 17 seconds = 7 min 39 sec

min	sec
④⑨	⑦⑦
~~50~~	~~17~~
− 42	38
07	39

f. Subtract 15 years 9 months from 18 years 5 months = 2 years 8 months

years	months
⑰	⑰
~~18~~	~~5~~
− 15	9
2	8

3. Find the duration of time.

Ans. a. 8 : 10 a.m. to 1 : 40 p.m.
8 : 10 am = 0810 hours and 1 : 40 pm = 1340 hours
Duration of time from 8 : 10 am to 1 : 40 pm
= 1340 hours 0810 hours = 0530 hours
= **5 hours 30 minutes**

b. 9 : 10 a.m. to 4 : 50 p.m.
9 : 10 am = 0910 hours and 4 : 50 pm = 1650 hours
Duration of time from 9 : 10 am to 4 : 50 pm
= 1650 hours – 0910 hours = 0740 hours
= **7 hours 40 minutes**

c. 8 : 45 p.m. to 12 : 00 noon d.
8 : 45 pm = 2045 hours and 12 : 0 noon = 1200 hours
midnight = 2400 hours or 0000 hours

Duration of time from 8 : 45 pm to midnight
= 2400 hours – 2045 hours
= 0315 hours = 3 hours 15 minutes
duration from midnight to 12 : 00 noon = 1200 hours 0000 hours = 12 hours
Duration from 8 : 45 pm to 12 noon = 03 hours 15 min 1200 hours 0 minutes
= 15 hours 15 minutes

d. 4 : 25 p.m. to 1 : 10 a.m.
4 : 25 pm = 1625 hours and 1 : 10 am = 0110 hours
Duration from 4 : 25 pm to mid night
= 2400 hours – 1625 hours = 0735 hours
= **7 hours 35 minutes**
Duration from midnight to 1 : 10 am
= 0110 hours – 0000 hours = 0110 hours
= 1 hour 10 minutes
Duration from 4 : 25 pm to 1 : 10 am
= 7 hours 35 min + 1 hour 10 minutes
= **8 hours 45 minutes**

4. Solve the following story sums.

Ans. a. Studied time in the morning = 2 hours 15 min
Studied time in the evening = + 1 hour 50 min
Total studied time = 4 hours 5 min
So, Sakshi studied 4 hours 5 min in a day.

	min	sec
	①	
	2	15
−	1	50
	4	05

b. Rajat studies for 2 hours 15 min.
Nishant studies for 1 hours 45 min.
2 hr 15 min > 1 hr 45 min
So Rajat studies longer period
Difference of time between both
= 2 hr 15 min – 1 hr 45 min = 30 minutes
So, Rajat studies 30 minutes longer than Nishant.

	hr	min
	①	⑦⑤
	~~2~~	~~15~~
−	1	45
	0	30

c. Time taken by express train = 7 hours 25 minutes
Time taken by super fast train = 5 hours 45 minutes
Difference of time taken by both trains
= 7 hr 25 min – 5 hr 45 min = 1 hour 40 minutes
So, we save 1 hour 40 minutes if we travel by faster train.

	min	sec
	⑥	⑧⑤
	7	25
−	5	45
	1	40

d. Pallavi is older 1 year 6 months than Satvik
Age of Satvik = 7 years 9 months
\ Age of Pallavi = 7 years 9 months + 1 years 6 months
So, age of Pallavi is 9 years 3 months.

	year	month
	①	
	7	9
+	1	6
	9	3

e. Gautam lived in Banglore or = 4 years 6 months
Gautam lived in Mumbay for = 5 years 10 months
Gautam lived in both city for = 4 years 6 months
+ 5 years 10 months = 10 years 4 months.
So, Gautam was away 10 years 4 months from his home town.

	year	month
	①	
	4	6
+	5	10
	10	4

Higher Order Thinking skills

Ans. One of them was born on 28th February and other was born on Ist march.

Exercise 17.2

Ans. 1. Total leave = 40 days from 12 January
Leave duration in January = 31 – 11 = 20 days
Leave duration in February = 20 days
So, Mohit will joint the office on **21st February**.

2. John went on leave on 13 March upto 14 April
Leave duration in March = 31 – 12 = 19 days
Leave duration in April = 14 days
Total leaves = 19 + 14 = 33 days

3. The school remained closed from 13th May to 23 rd June.
Summer vacation in May = 19 days
Summer vacation in June = 23 days
Total vacation = 19 + 23 = 42 days
42 days the school remained closed

4. Official tour was from 14th March to 27 May.
Days of tour in March = 31 – 13 = 18 days
Days of tour in April = 30 days
Days of tour in may = 27
Total days of tour = 18 + 30 + 27 = **75 days**

Exercise 17.3

1. Convert the following into Fahrenheit scale.

Ans. $°F = \frac{9}{5} \times °C + 32°$

a. \ 50°C

$°F = \frac{9 \times 50°}{5} + 32° = 90° + 32° = 122°$ F

So, 50°C = 122°F

b. 35°C

$°F = \frac{9 \times 35°}{5} + 32° = \frac{9 \times \overset{7°}{\cancel{35°}}}{\cancel{5}_{1}} + 32° = 63° + 32° = 95°$

So, **35°C = 95°F**

c. 90.5°C

$°F = \frac{9 \times 90.5°}{5} + 32° = \frac{9 \times \overset{18.1}{\cancel{90.5°}}}{\cancel{5}_{1}} + 32° = 162.9° + 32° = 194.9°F$

So, **90.5°C = 194.9°F**

d. 37.5°C

$°F = \frac{9 \times 37.5°}{5} + 32° = \frac{9 \times \overset{7.5}{\cancel{37.5}}}{\cancel{5}_{1}} + 32° = 67.5° + 32° = 99.5°F$

So, **37.5°C = 99.5°F**

e. 75°C

$°F = \frac{9 \times 75°}{5} + 32° = \frac{9 \times \overset{15°}{\cancel{75°}}}{\cancel{5}_{1}} + 32° = 135° + 32° = 167°F$

\ 75°C = 167°F

f. 65°C

$°F = \frac{9 \times 65°}{5} + 32° = \frac{9 \times \overset{13°}{\cancel{65°}}}{\underset{1}{\cancel{5}}} + 32° = 117° + 32 = 149°$

So, **65°C = 149°F**

g. 0°C

$°F = \frac{9 \times 0°}{5} + 32° = 0° + 32° = 32°$

So, 0°C = 32°F

h. 95°C

$°F = \frac{9 \times 95°}{5} + 32° = \frac{9 \times \overset{19}{\cancel{95°}}}{\cancel{5}} + 32° = 171° + 32 = 203°$

So, **95°C = 203°F**

2. Convert the following into Celsius scale.

Ans. a. 50°F

$°C = \frac{5}{9} \times (50° - 32°) = \frac{5}{\underset{1}{\cancel{9}}} \times \overset{2}{\cancel{18}} = 10°$

So, **50°F = 10°C**

b. 131.9°F

$°C = \frac{5}{9} \times (131.9° - 32°) = \frac{5}{\underset{1}{\cancel{9}}} \times \overset{11.1°}{\cancel{99.9°}} = 55.5°$

So, **131.9°F = 55.5°C**

c. 122°F

$°C = \frac{5}{9} \times (122° - 32°) = \frac{5}{\cancel{19}} \times \overset{10°}{\cancel{90°}} = 50°$

So, **122°F = 50°C**

d. 203°F

$°C = \frac{5}{9} \times (203° - 32°) = \frac{5}{\cancel{9}} \times \overset{19°}{\cancel{171°}} = 95°$

So, **203°F = 95°C**

e. 104°F

$°C = \frac{5}{9} \times (104° - 32°) = \frac{5}{\cancel{9}} \times \overset{8°}{\cancel{72°}} = 40°$

So, 104°F = 40°C

f. 194°F

$°C = \frac{5}{9} (194° - 32°) = \frac{5}{\cancel{9}} \times \overset{18°}{\cancel{162°}} = 90°$

So, 194°F = 90°C

g. 86°F

$°C = \frac{5}{9} \times (86° - 32°) = \frac{5}{\cancel{9}} \times \overset{18°}{\cancel{54°}} = 30°$

\ 86°F = 30°C

h. 108.5°F

$°C = \frac{5}{9} \times (108.5° - 32°) = \frac{5}{9} \times \overset{8.5°}{\cancel{76.5°}} = 42.5°$

So, 108.5°F = 42.5°C

3. Fill in the blanks.

Ans. a. Doctors use **clinical** thermometer.

b. Liquid used in thermometer is called **Mercury**.

c. The normal body temperature of a person is **37**°C or **98.6**°F.
d. When the temperature was 7°C, I had to wear **sweater** to protect myself.
e. Water boils at **100**°C and freezes at **32**°F.

4. Find :

Ans. a. Yes

b. 167°F

$°C = \frac{5}{9} \times (167° - 32°) = \frac{5}{\cancel{9}} \times \overset{15}{\cancel{135}}° = 75°$

\ 167° F = 75°C

So, the temperature of an object is 75°C

c. 25°C

$°F = \frac{9}{5} \times 25° + 32° = \frac{9}{5} \times 25° + 32° = 45° + 32° = 77°$

\ 25°C = 77°F

Temperature in the morning was 25°C = 77°F

Temperature during day increased by 10°F

So, the temperature during day time = 77°F + 10°F = 87°F

Temperature during day time was 87°F

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. a. 2. b. 3. b. 4. c.

PLAY TIME

Circle the temperature that is class to the situation described.

Ans.

a. 

35°C/5°C

b. 

100°F/212°F

c. 

98.5°C/35.8°C

Permeter, Area and Volume

18

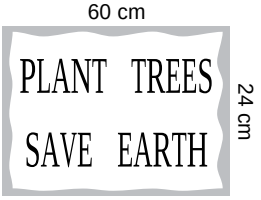
Let's Review

1. Find the perimeter of these posters :

Ans. a.

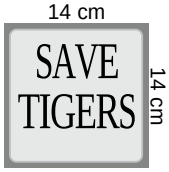
Perimeter
= 4 × 35 cm
= 140 cm

b.



Perimeter
= 2 × (60 + 24) cm
= 2 × 84
= 168 cm

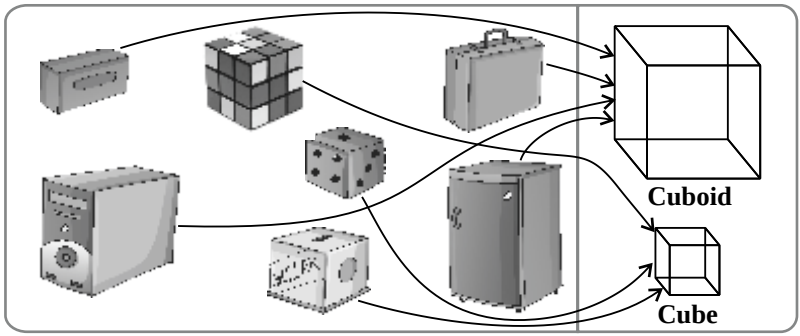
c.



Perimeter
= 4 × 14 cm
= 56 cm

2. Match the following object with their corresponding shape :

Ans.



Exercise 18.1

1. Find the perimeter of following figures.

Ans. a. Perimeter = 30 cm + 23 cm + 25 cm = **78 cm**
b. Perimeter = 7 cm + 8 cm + 10 cm + 12 cm = **37 cm**
c. Perimeter = 2 (8 + 3.5) cm = 2 × 11.5 cm = **23 cm**
d. Perimeter = 4 × 6.5 cm = **26 cm**
e. Perimeter = 4 × 2.5 cm = **10 cm**
f. Perimeter = 6 cm + 4 cm + 4.5 cm + 2 cm = **16.5 cm**

2. Find the missing entry of the rectangle for each of the following :

Ans.

Length	18 cm	**50 cm**	**50 cm**	**24 cm**	48 m
Breadth	12 cm	46 cm	30 cm	18 cm	**22 m**
Perimeter	60 cm	192 cm	160 cm	84 m	140 m

3. Find the missing entry :

Ans.

Side	**8.5 cm**	**12 cm**	**6.75 cm**	**18.4 m**	**81 cm**
Perimeter	34 cm	48 cm	27 cm	73.6 m	324 cm

4. Solve the following word problems.

Ans. a. Length of rectangular park l = 30 m.
Breadth of rectangular b = 22 m.
Parameter of park = 2 (l + b) = 2 × (30 m + 22 m) = 2 × 52 m = 104 m
Distance covered in one round = **104 m**
\ Distance covered in 4 rounds = 4 × 104 m = 416 m
So, Mohan cover red **416** m in 4 rounds of the park.

b. Side of the square field = 120 m
\ Parameter of the field = 4 × s = 4 × 120 m = 480 m
The cost of fencing of 480 m = ` 480 × 15 = ` 7200
So, the cost of fencing around f the park is ` 7200

c. Para meter of the square p = 84 m
\ Length of its side = $\frac{p}{4} = \frac{84}{4}$ = 21 m
So, the side of the square is 21 m

d. Length of the rectangular park l = 20 m
Breadth of the rectangular park b = 15 m
Parameter of the park p = 2 (l + b) = 2 (20 m + 15 m) = 2 × 35 m = 70 m
Distance covered in one round = 70 m
Distance covered in three round = 3 × 70 = 210 m
So, Amrish jogs 210 m daily.

Think And Do

Tick (3) the unit of area you will use to find the area of the following.

		sq. cm	sq. m	sq. km
Ans. 1.	A post card	3		
2.	Hockeyfield		3	
3.	Country			3
4.	The label on your exercise book	3		

Exercise 18.2

1. Measure the length and breadth then find the area.

Ans. a. l = **3** cm, b = **3** cm
A = **9** sq.cm

b. l = 4 cm, b = **3** cm
A = **12** sq.cm

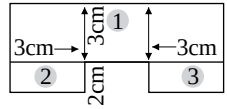
c. l = **4** cm, b = **2**
A = **8** sq.cm

2. Find the area of the following.

Ans. a. Side of the squares = 5 cm
\ Area of the square = s × s = 5 cm × 5 cm = **25 sq. cm**

b. Length of rectangle l = 9 cm
Breadth of rectangle b = 7.5 cm
Area of rectangle = l × b = 9 cm × 7.5 cm = **67.5 sq. cm.**

c. Length of rectangle = 9 cm
Breadth of rectangle = 3 cm
Area of rectangle = 9 cm × 3 cm = **27 sq. cm**
Length of rectangle 1 and 3 = 3 cm
Break of rectangles 2 and 3 or 2 cm
Area of rectangles 2 and 3 = 2 × 3 cm × 2 cm = **12 q. cm**
Total area of the figure = 27 sq cm + 12 sq cm = **39 sq. cm**



3. Find the area of the rectangle with

Ans. a. Length of the rectangle l = 12 cm
Breadth of the rectangle b = 8 cm
Area of the rectangle = l × b = 12 cm × 8 cm = **96 sq cm**

b. Length of the rectangle l = 8 cm
Breadth of the rectangle b = 6 m
Area of the rectangle = l × b = 8 cm × 6 cm = **48 sq cm**

c. Length of the rectangle l = 16 cm
Breadth of the rectangle b = 9 cm
Area of the rectangle = l × b = 16 cm × 9 cm = **144 sq cm**

d. Length of the rectangle l = 8 m
Breadth of the rectangle b = 6.5 m
Area of the rectangle = l × b = 8 m × 6.5 m = **52 sq m**

4. Find the area of the square with the side :

Ans. a. Side of the square s = 6 cm

\ Area of the square = s × s = 6 cm × 6 cm = **36 sq cm**

b. Side of the square s = 9 cm

\ Area of the square s × s = 9 m × 9 m = **81 sq m**

c. Side of the square s = 11.5 cm

\ Area of the square = s × s = 11.5 cm × 11.5 cm = **132.25 sq cm**

d. Side of the square s = 18 cm

\ Area of the square = s × s = 18 cm × 18 cm = **324 sq cm**

e. Side of the square s = 16 cm

\ Area of the square = s × s = 16 cm × 16 cm = **256 sq cm**

f. Side of the square s = 8.5 cm

\ Area of the square = s × s = 8.5 cm × 8.5 cm = **72.25 sq cm**

5. Solve the following.

Ans. a. Parameter of the squarefield = 520 m

\ Side of the square = $\frac{520}{4}$ = m = 130 m

Area of the square field = s × s = 130 m × 130 = 16900 sq m

So, length of the side of square field is **130 m** and

Area of the field is **16900 sq m**

b. Length of the plat form l = 8 m = 800 cm

Breadth of the plat form b = 6 m = 600 cm

Area of the plat form = l × b = 800 cm × 600 cm = 480000 sq cm

Length of the cement slab = 4 cm

Breadth of the cement slab = 3 cm

Area of each cement lab = 4 cm × 3 cm = 12 sq cm

Number of slabs required = $\frac{\text{Area of platform}}{\text{Area of slab}} = \frac{\cancel{480000}^{40000}}{12}$

= 40,000 cement slabs

So, 40,000 cement slab are required.

c. Length of the ground l = 100 m

Breadth of the ground b = 60 m

\ Area of the ground = l × b = 100 m × 60 m = 6000 sq m

The cost of leveling ground for 1 sq m = ` 2

The cost of leveling ground for 6000 sq m = ` 2 × 6000 = ` 12000

So, ` 12000 is the cost of leveling a ground

d. The height (length) of the wall = 2.88 m = 288 cm

The width of the wall = 50 cm

Area of the wall = height (length) × width = 288 cm × 50 cm

= 14400 sq cm

Length of the brick = 12 cm

Breadth of the brick = 10 cm

\ Area of the brick = 12 cm × 10 cm = 120 sq cm

Number of bricks = $\frac{\text{Area of the wall}}{\text{Ara of the brick}} = \frac{\cancel{1440}}{12\cancel{0}} = 120$

So, 120 bricks are required for per layer.

Think And Do

Ans. 1. perimeter
2. 2 × (Length + breadth)
3. side × side
4. 4 × side
5. sq.cm
6. 14

Higher Order Thinking skills

Ans. 144 cucm

Exercise 18.3

1. Find the volume of the following solids in terms of unit-cubes.

Ans. a. There are 3 unit-cubes.
So, the volume of the solid = **3 cubic unit**

b. There are 4 unit-cubes.
So, the volume of the solid = **4 cubic unit**

c. There are 6 unit-cubes.
So, the volume of the solid = **6 cubic unit**

d. There are 7 unit-cubes.
So, the volume of the solid = **7 cubic unit**

e. There are 6 unit-cubes.
So, the volume of the solid = **6 cubic unit**

f. There are 12 unit-cubes.
So, the volume of the solid = **12 cubic unit**

g. There are 9 unit cubes.
So, the volume of the solid = **9 cubic unit**

h. There are 32 unit cubes.
So, the volume of the solid = **32 cubic unit**

2. Count the number of cubes and find the volume in cu cm.

Ans. a. There are 10 cubes
So, volume = **10 cu cm**

b. There are 14 cubes
So, volume = **14 cu cm**

c. There are 36 cubes
So, volume = **36 cu cm**

d. There are 32 cubes
So, volume = **32 cu cm**

Think And Do

Find the volume of the following:

Ans. 1. 216
2. 1620

Exercise 18.4

1. Fill in the blanks :

Ans. a. The volume of a cuboid = **length × breadth × height**

b. The volume of a cube = **side × side × side**

c. If each side of a cube is 1 m, its volume is = **1 cu m**

2. Find the volume of these objects.

Ans. a. Length of object (cuboid) l = 12 cm
Breadth of object (cuboid) b = 8 cm
Thickness of object (cuboid) h = 3 cm
Volume of a cuboid = l × b × h = 12 cm × 8 cm × 3 cm = 288 cu cm

b. Length of object (cuboid) l = 5 cm
Breadth of object (cuboid) b = 2 cm
Thickness of object (cuboid) h = 1 cm

Volume of a cuboid = l × b × h = 5 cm × 2 cm × 1 cm = 10 cu cm

c. Length of object (cuboid) l = 10 cm
Breadth of object (cuboid) b = 6 cm
Thickness of object (cuboid) h = 2 cm
Volume of a cuboid = l × b × h = 10 cm × 6 cm × 2 cm = 120 cu cm

d. Length of object (cuboid) = 15 cm
Breadth of object (cuboid) = 3 cm
Thickness of object (cuboid) = 2 cm
Volume of a cuboid = 15 cm × 3 cm × 2 cm = 90 cu cm

e. Length of object (cuboid) = 10 cm
Breadth of object (cuboid) = 5 cm
Thickness of object (cuboid) = 2 cm
Volume of a cuboid = 10 cm × 5 cm × 2 cm = 100 cu cm

f. Length of object (cuboid) = 6 cm
Breadth of object (cuboid) = 5 cm
Thickness of object (cuboid) = 4 cm
Volume of a cuboid = 6 cm × 5 cm × 4 cm = 120 cu cm

3. Find the volume of each of the following.

Ans. a. 48 cu mm b. 1000 cu cm
c. 432 cu m d. 781.2 cu m
e. 21112 cu cm

4. Solve these story problems.

Ans. a. Length of ice-cream brick = 22 cm
Breadth of ice-cream brick = 10 cm
Height of ice-cream brick = 8 cm
Volume o ice-cream brick = 22 cm × 10 cm × 8 cm = 1760 cubic cm
So, the volume of an ice cream is 1760 cu cm

b. Length of the refrigerators = 80 cm
Width of the refrigerators = 40 cm
Height of the refrigerators = 90 cm
Volume of the refrigerators = 80 cm × 40 cm × 90 cm
= 288000 cu cm
So, John's refrigerator's volume is 288000 cu cm

c. Length of the room = 10 m
Width of the room = 8 m
Height of the room = 12 m
\ Volume of the room = 10 m × 8 m × 12 m = 960 cu m
So, the volume of air is 960 cu m

d. Length of the aquarium = 30 cm
Breadth of the aquarium = 30 cm
Height of the aquarium = 50 cm
So the volume of the aquarium = 30 cm × 30 cm × 50 cm = 45000 cu cm
So 45000 cu cm water has been filled in the aquarium.

e. Size of a match box = 4 cm × 3 cm × 1 cm
\ Volume of a match box = 4 cm × 3 cm × 1 cm = 12 cu cm
Size of a carton = 14 cm × 8 cm × 6 cm
\ Volume of a carton = 14 cm × 8 cm × 6 cm = 672 cu cm

\ Number of match boxes $= \frac{\text{Volume of carton}}{\text{volume of Match box}} = \frac{672}{12} = 56$

So, 56 match boxes can be placed in a carton

Higher Order Thinking skills

Find the perimeter and area of the shaded portion.

Ans. a. p = 17.2 cm
A = 15 sq.cm

b. p = 22.8 cm
A = 17 sqcm

PLAT TIME

Given below is a model of a school compound. find the area covered by different parts in it. express your answer in cm^2:

Ans. a. $30cm^2$ b. $20cm^2$ c. $65cm^2$ d. $8cm^2$
e. $4cm^2$ f. $4cm^2$ g. $8cm^2$

MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. b. 4. c.

Data Handling

19

Let's Review

The table given below show the number of saplings planted by each school :

Complete the pictograph for the above data. Use  **for 25 saplings.**

Ans.

School	Number of saplings planted by each school
School A	
School B	
School C	
School D	
School E	

Exercise 19.1

1. We can represent the given information in tabular form as below :

Liked Tourist Place	Tally Marks	Number of students
Mussorie	𝍸 ||||	9
Nainital	𝍸 |	6
Shimla	𝍸 ||	7
Darjelling	𝍸 |	6
Kullumannali	||	2

a. Mussorie is liked most by 9 students.
b. Kullumanali is liked least by 2 students.
c. 5 more students like Shimla than Kullumanali.
d. 6 students like Naintal.

2. We can represent the given date as below.

Days →	Number of books → = 8 books = 4 books
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

a. On Wednesday and Thursday, the same number of books (40) are sold.

b. There are 31 pictures of book so the total number of books sold in the week is $31\frac{1}{2} \times 8 = 252$.

3. We can draw a pictograph to represent the given data.

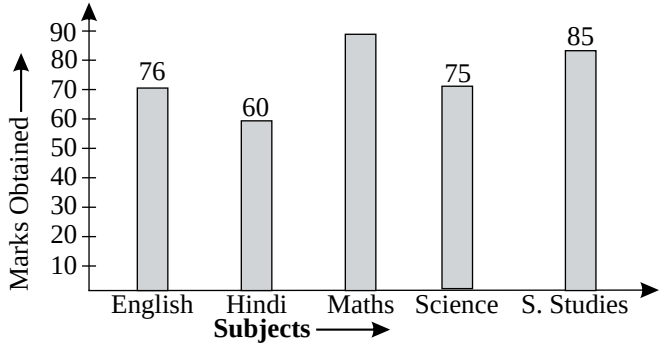
Ans.

Subject →	Marks obtained by Akshay → = 10 marks and = 5 marks
Maths	
English	
Science	
EVS	
Hindi	
Computer	

Exercise 19.2

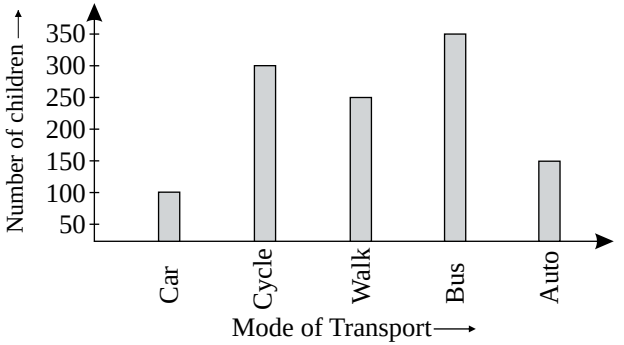
1. The marks obtained by Rashmi in the annual exams is shown using a bar graph. Read the graph carefully and answer the following questions.

Ans.



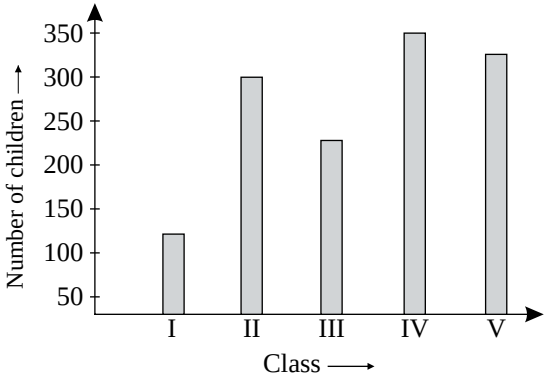
a. Rashmi scored the highest in Mathematics.
b. She scored equally in English and Science.
c. She scored 85 marks in S.St.
d. She scored (70 + 60 + 90 + 70 + 85 = 375) 375 marks in all

2. The following bar graph shows the mode of transport used by children go to school.



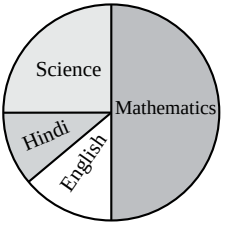
3. The following bar graph shows the number of students in class I to V in a school.

Scale 1 cm = 50 students on y-axis



Exercise 19.3

1. The students of class V voted for their favourite subject. The data has been represented as a pie-chart given below. Study the pie-chart and answer the following questions.

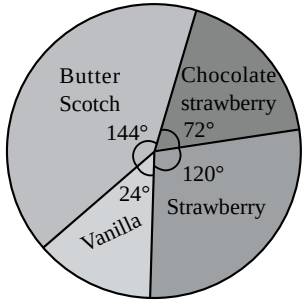


a. Hindi is least popular.
b. Mathematics is most popular.
c. Science is more popular than English.
d. Subject are in ascending order of their popularity as below.
Hindi < English < Science < Mathematics

2. Draw pie-chart for the following data.

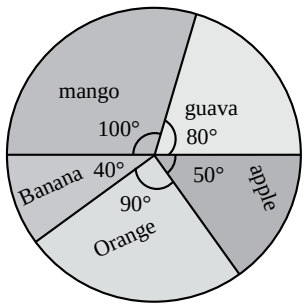
a. A pie-chart for favourite flavor of Ice-creams of children is below.

Favourite Ice	Number of Children	Angle Covered
Chocolate	60	$\frac{60}{300} \times 360° = 72°$
Butter scotch	120	$\frac{120}{300} \times 360° = 144°$
Vanilla	100	$\frac{100}{300} \times 360° = 120°$
Straberry	20	$\frac{20}{300} \times 360° = 24°$
	Total = 300	= 360°



b.

Types of tree	Number of Trees	Angle Covered
Mango	10	$\frac{10}{36} \times 360° = 100°$
Guava	8	$\frac{8}{36} \times 360° = 80°$
Apple	5	$\frac{5}{36} \times 360° = 50°$
Orange	9	$\frac{9}{36} \times 360° = 90°$
Banana	4	$\frac{4}{36} \times 360° = 40°$
	Total = 300	= 360°



MULTIPLE CHOICE QUESTIONS

Tick (3) the correct choice :

Ans. 1. b. 2. c. 3. a.

Note

Note

Note