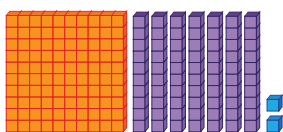


HINTS & SOLUTIONS

CHAPTER 1 : NUMBERS

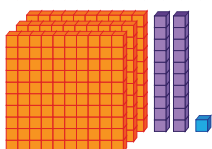
Warm Up

1. a.



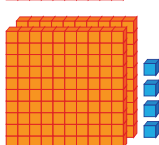
172

b.



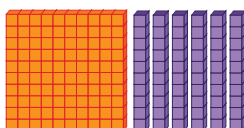
321

c.



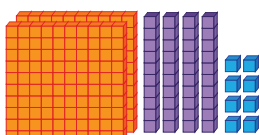
204

d.



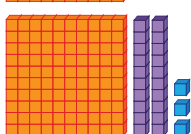
160

e.



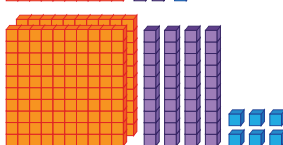
248

f.



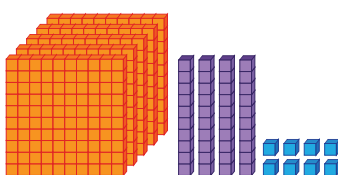
123

2. a.



= 2 hundreds 4 tens 6 ones
= 200 + 40 + 6
= 246

b.



= 5 hundreds 4 tens 8 ones
= 500 + 40 + 8
= 548

3. a. 321, 322, 323, 324, 325, 326

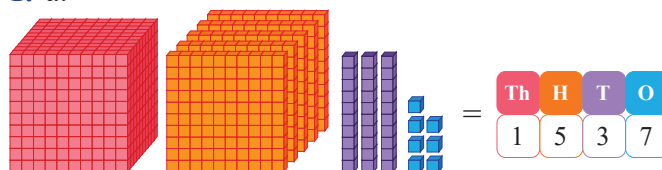
b. 546, 547, 548, 549, 550, 551

c. 996, 997, 998, 999, 1000, 1001

d. 990, 995, 1000, 1005, 1010, 1015, 1020

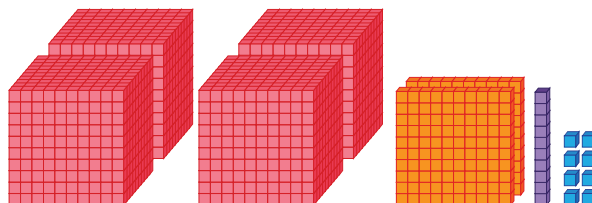
Exercise 1A

1. a.



One thousand five hundred thirty-seven

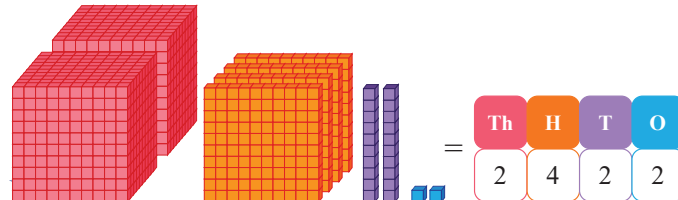
b.



Four thousand two hundred eighteen



c.



Two thousand four hundred twenty-two

2. a. Five thousand six hundred twenty

= 5000 + 600 + 20 = 5620

b. One thousand eight hundred fifty-two

= 1000 + 800 + 52 = 1852

c. Two thousand two hundred twenty-two

= 2000 + 200 + 22 = 2222

d. Six thousand ninety-five

= 6000 + 95 = 6095

e. Eight thousand seven hundred seven

= 8000 + 700 + 7 = 8707

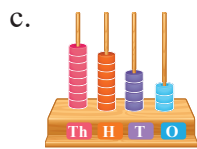
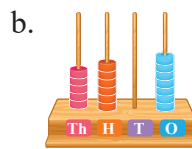
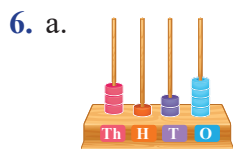
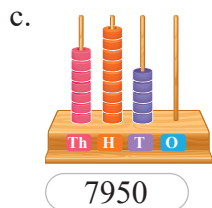
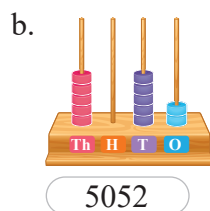
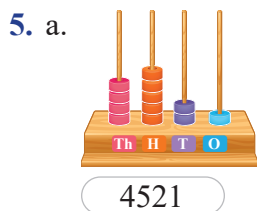
3. a. 7360 = Seven thousand three hundred sixty

b. 2893 = Two thousand eight hundred ninety-three



- c. 3760 = Three thousand seven hundred sixty
 d. 5200 = Five thousand two hundred
 e. 4706 = Four thousand seven hundred six

4. a. 1609, 1610, 1611, 1612, 1613, 1614, 1615
 b. 2799, 2800, 2801, 2802, 2803, 2804, 2805
 c. 4005, 4006, 4007, 4008, 4009, 4010, 4011
 d. 8888, 8889, 8890, 8891, 8892, 8893, 8894



7. a. **Error:** Mishthi placed 8 beads in the tens column instead of the thousands column.
 Correct Abacus:



- b. **Error:** Mishthi placed 1 bead in the hundreds column instead of the tens column.
 Correct Abacus:



- c. **Error:** Mishthi placed 7 beads in the hundreds column instead of 9.

Correct Abacus:



8. a. 10 ones = 1 ten
 b. 10 tens = 100 ones
 c. 10 hundreds = 100 tens
 d. 1000 = 10 hundreds

9. If $\ominus = 1000$, $\oplus = 100$, $\uparrow = 10$ and $\boxplus = 1$, then:

- a. 2571

$$2000 + 500 + 70 + 1$$



- b. 3642

$$3000 + 600 + 40 + 2$$



- c. 1019

$$1000 + 10 + 9$$



10. Clara arranged her cards like this



So, the number is 2221.

Vagmi arranged her cards like this



So, the number is 321.

The winner is Clara.

Th	H	T	O
2	2	2	1
	3	2	1

Exercise 1B

1. a.

Th	H	T	O
7	9	3	2

Place Value

$$2 \text{ ones} = 2 \times 1 = 2$$

$$3 \text{ tens} = 3 \times 10 = 30$$

$$9 \text{ hundreds} = 9 \times 100 = 900$$

$$7 \text{ thousands} = 7 \times 1000 = 7000$$

- b.

Th	H	T	O
2	0	5	6

Place Value

$$6 \text{ ones} = 6 \times 1 = 6$$

$$5 \text{ tens} = 5 \times 10 = 50$$

$$0$$

$$2 \text{ thousands} = 2 \times 1000 = 2000$$



	Numbers	Thousands	Hundreds	Tens	Ones
a.	5730				
b.	2015				
c.	4017				
d.	6200				

	Numbers	Place	Place value	Face value
a.	4539	Tens place	$3 \times 10 = 30$	3
b.	5068	Hundreds place	$0 \times 100 = 30$	0
c.	9324	Thousands place	$9 \times 1000 = 9000$	9
d.	7623	Ones place	$3 \times 1 = 3$	3

4. a. $7349 = 7000 + 300 + 40 + 9$
 b. $3750 = 3000 + 700 + 50$
 c. $2089 = 2000 + 80 + 9$
 d. $1700 = 1000 + 700$
5. a. $2000 + 600 + 90 = 2690$
 b. $5000 + 800 + 60 + 9 = 5869$
 c. $5000 + 10 = 5010$
 d. $9000 + 900 + 90 + 9 = 9999$

Exercise 1C

1. a.

Th	H	T	O
	3	1	4
		9	8

 $\rightarrow$ 3 digits
 $\rightarrow$ 2 digits
 So, $314 > 98$.
- b.

Th	H	T	O
	6	2	9
3	1	5	0

 $\rightarrow$ 3 digits
 $\rightarrow$ 4 digits
 So, $629 < 3150$.
- c.

Th	H	T	O
2	3	7	8
	7	2	9

 $\rightarrow$ 4 digits
 $\rightarrow$ 3 digits
 So, $2378 > 729$.

- d.

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

 $\rightarrow$ 4 digits
 $\rightarrow$ 4 digits
 $\rightarrow 1000 < 2000$
 So, $1400 < 2500$.

- e.

Th	H	T	O
7	9	1	4
7	5	0	0

 Same $\rightarrow 900 > 500$
 So, $7914 > 7500$.

- f.

Th	H	T	O
5	8	3	8
5	5	8	3

 Same $\rightarrow 800 > 500$
 So, $5838 > 5583$.

- g.

Th	H	T	O
8	6	5	0
8	6	5	0

 Same
 So, $8650 = 8650$.

- h.

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

 Same $\rightarrow 50 < 60$
 So, $4351 < 4360$.

- i.

Th	H	T	O
	9	6	2
1	9	6	5

 $\rightarrow$ 3 digits
 $\rightarrow$ 4 digits
 So, $962 < 1965$.

2. a. **Step 1.** Write the numbers in a place value chart.

Step 2. Compare the thousands digits, 2087 is the smallest number.

Step 3. Compare the remaining numbers, 9387 is the greatest number.

Greatest number: 9387

Smallest number: 2087

Th	H	T	O
8	2	0	9
7	9	8	9
9	3	8	7
2	0	8	7



Now, compare the hundreds digits in numbers 3979 and 3444.

$900 > 400$

Final ascending order for the given numbers is 3444, 3979, 4404.

- c. Check the number of digits in each number:

7568 $\rightarrow$ 4 digits 3404 $\rightarrow$ 4 digits

7891 $\rightarrow$ 4 digits 6430 $\rightarrow$ 4 digits

The number of digits of each number is the same.

Compare the thousands digits of the numbers: 7568, 3404, 7891, 6430.

From 3, 6, and 7: 3 is the smallest, 6 is greater than 3, and 7 is the greatest.

So, the order becomes: 3404, 6430.

Comparing the hundreds digits of the numbers 7568 and 7891, 5 is smaller than 8.

Final ascending order for the given numbers is 3404, 6430, 7568, 7891.

- d. Check the number of digits in each number:

4444 $\rightarrow$ 4 digits 9409 $\rightarrow$ 4 digits

2000 $\rightarrow$ 4 digits 5400 $\rightarrow$ 4 digits

Compare the thousands digits of the numbers: 4444, 9409, 2000, 5400

From 2, 4, 5, and 9:

2 is the smallest, 4 is greater than 2, 5 is greater than 4, and 9 is the greatest.

Final ascending order for the given numbers is 2000, 4444, 5400, 9409.

- e. Check the number of digits in each number:

7001 $\rightarrow$ 4 digits 3406 $\rightarrow$ 4 digits

4900 $\rightarrow$ 4 digits 1744 $\rightarrow$ 4 digits

Compare the thousands digits of the numbers: 7001, 3406, 4900, 1744

From 1, 3, 4, and 7:

1 is the smallest, 3 is greater than 1, 4 is greater than 3, and 7 is the greatest.

Final ascending order for the given numbers is 1744, 3406, 4900, 7001.

- f. Check the number of digits in each number:

8001 $\rightarrow$ 4 digits 7002 $\rightarrow$ 4 digits

7340 $\rightarrow$ 4 digits 6004 $\rightarrow$ 4 digits

The number of digits of each number is the same.

Compare the thousands digits of the numbers: 8001, 7002, 7340, 6004.

From 6, 7, and 8: 6 is the smallest, 7 is greater than 6, and 8 is the greatest.

In the hundreds place of the numbers 7002 and 7340, 0 is the smallest, and 3 is the greatest.

So, the order becomes 6004, 7002, 7340.

Final ascending order for the given numbers is 6004, 7002, 7340, 8001.

2. a. Check the number of digits:

444 $\rightarrow$ 3 digits 6001 $\rightarrow$ 4 digits

3240 $\rightarrow$ 4 digits

444 is the smallest, so it comes last.

Compare the thousands digits of numbers 6001 and 3240.

From 3 and 6: 6 is greater than 3.

So, the order becomes 6001, 3240, 444.

- b. Check the number of digits:

202 $\rightarrow$ 3 digits 7200 $\rightarrow$ 4 digits

5109 $\rightarrow$ 4 digits 5119 $\rightarrow$ 4 digits

202 is the smallest, so it comes last.

Compare the thousands digits of numbers: 7200, 5109, 5119

From 7 and 5: 7 is the greater than 5. So, 7200 comes first.

The hundreds digits of the numbers 5109 and 5119 are the same. So, compare the tens place.

From 0 and 1: 1 is greater than 0.

So, the order becomes 7200, 5119, 5109, 202.

- c. Check the number of digits:

9496 $\rightarrow$ 4 digits 9701 $\rightarrow$ 4 digits

9995 $\rightarrow$ 4 digits 8364 $\rightarrow$ 4 digits

Compare the thousands digits of numbers 9496, 9701, 9995, 8364.

From 9 and 8: 9 is greater than 8. So, 8364 comes last.

In the hundreds place of the numbers 9496, 9701, 9995: 4 is the smallest, 7 is greater than 4 and 9 is the greatest.

So, the order becomes 9995, 9701, 9496.

Final descending order for the given numbers is 9995, 9701, 9496, 8364.



d. Check the number of digits:

4600 → 4 digits 7210 → 4 digits

7400 → 4 digits 9999 → 4 digits

Compare the thousands digits of the numbers 4600, 7210, 7400, and 9999.

From 9, 7, and 4: 9 is the greatest, 7 is greater than 4, and 4 is the smallest. So, 4600 comes last and 9999 comes first.

In the hundreds place of the numbers 7210 and 7400: 2 is smaller than 4.

So, the order becomes 7400, 7210.

Final descending order for the given numbers: 9999, 7400, 7210, 4600.

e. Check the number of digits:

9340 → 4 digits 9346 → 4 digits

9364 → 4 digits 9377 → 4 digits

Compare the thousands digits. If the thousands digits are the same, compare the hundreds digits. If the hundreds digits are the same, compare the tens digits of 9340, 9346, 9364, 9377.

From 4, 6 and 7: 7 is the greatest, 6 is greater than 4, and 4 is the smallest. So, the order becomes: 9377, 9364.

In the ones place of the numbers 9340 and 9346, 0 is smaller than 6.

So, the descending order is 9377, 9364, 9346, 9340.

f. Check the number of digits:

4951 → 4 digits 4956 → 4 digits

4961 → 4 digits 4971 → 4 digits

Compare the thousands digits. If the thousands digits are the same, compare the hundreds digits. If the hundreds digits are the same, compare the tens digits of 4951, 4956, 4961, 4971.

From 5, 6, and 7: 7 is the greatest, 6 is greater than 5, and 5 is the smallest. So, the order becomes 4971, 4961.

In the ones place of the numbers 4951 and 4956, 1 is smaller than 6.

So, the descending order is 4971, 4961, 4956, 4951.

Exercise 1E

1. a. Digits: 3, 4, 9, 1

Smallest number

To make the smallest number, write the digits in ascending order.

Digits in ascending order: 1, 3, 4, 9

Smallest number = 1349

Greatest number

To make the greatest number, write the biggest digits in descending order.

Digits in descending order: 9, 4, 3, 1

Greatest number = 9431

b. Digits: 7, 9, 2, 8

Smallest number

Ascending order: 2, 7, 8, 9

Smallest number = 2789

Greatest number

Descending order: 9, 8, 7, 2

Greatest number = 9872

c. Digits: 5, 0, 1, 2

Smallest number

First arrange digits in ascending order: 0, 1, 2, 5

But 0 cannot come in the thousands place, because then it becomes a 3-digit number.

So, write the smallest non-zero digit first, then 0, and then the remaining digits.

Correct order: 1, 0, 2, 5

Smallest number = 1025

Greatest number

Write the biggest digit first: 5, 2, 1, 0

Greatest number = 5210

d. Digits: 2, 0, 4, 9

Smallest number

Ascending order: 0, 2, 4, 9

Since 0 cannot be the first digit, place the smallest non-zero digit (2) first, then 0, and then the rest.

Correct order: 2, 0, 4, 9

Smallest number = 2049

Greatest number

Descending order: 9, 4, 2, 0

Greatest number = 9420



2. a. 6 at thousands place
2 at hundreds place
7 at tens place
1 at ones place

6271

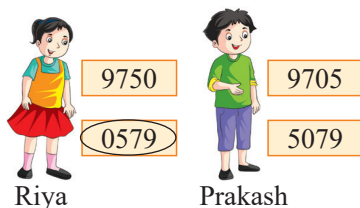
- b. 9 at thousands place
1 at hundreds place
0 at tens place
5 at ones place

9105

- c. 3 at thousands place
7 at hundreds place
2 at tens place
4 at ones place

3724

3. a.



- b. If we write digits in descending order:
9, 7, 5, 0 $\rightarrow$ 9750
So, the correct greatest number is 9750.
Riya made the correct greatest number.
- c. If we arrange digits in ascending order: 0, 5, 7, 9
But 0 cannot be in the thousands place, so place the smallest non-zero digit first:
5, 0, 7, 9 $\rightarrow$ 5079
So, the correct smallest number is 5079.
Prakash made the correct smallest number.

Exercise 1F

1. a. The predecessor of 586 = $586 - 1 = 585$
b. The predecessor of 1973 = $1973 - 1 = 1972$
c. The predecessor of 2014 = $2014 - 1 = 2013$
d. The predecessor of 2978 = $2978 - 1 = 2977$
e. The predecessor of 7364 = $7364 - 1 = 7363$
f. The predecessor of 8000 = $8000 - 1 = 7999$
2. a. The successor of 379 = $379 + 1 = 380$
b. The successor of 1048 = $1048 + 1 = 1049$
c. The successor of 2756 = $2756 + 1 = 2757$
d. The successor of 5000 = $5000 + 1 = 5001$

- e. The successor of 4039 = $4039 + 1 = 4040$
f. The successor of 8369 = $8369 + 1 = 8370$

- 3.

	Predecessor	Number	Successor
a.	249	250	251
b.	5059	5060	5061
c.	2467	2468	2469
d.	4100	4101	4102
e.	5671	5672	5673

4. a. Greatest 2-digit number = 99
Smallest 3-digit number = 100
The predecessor of 100 = $100 - 1 = 99$
Yes, 99 is the predecessor of 100.
- b. Smallest 2-digit number = 10
Greatest 1-digit number = 9
The successor of 9 = $9 + 1 = 10$
Yes, 10 is the successor of 9.
- c. Smallest 4-digit number = 1000
Greatest 3-digit number = 999
The successor of 999 = $999 + 1 = 1000$
Yes, 1000 is the successor of 999.
- d. Greatest 3-digit number = 999
Smallest 4-digit number = 1000
The predecessor of 1000 = $1000 - 1 = 999$
Yes, 999 is the predecessor of 1000.
- e. Smallest 3-digit number = 100
Smallest 2-digit number = 10
Successor of 10 = 11, and not 100.
No, 100 is not the successor of 10.
5. All the numbers that have 1, 3, 5, 7, or 9 in the ones place are odd.
Here, 431, 4033, 6537, 5039 are odd numbers.
6. All the numbers that have 2, 4, 6, 8, or 0 in the ones place are even numbers.
Here, 4070, 9374, 6576, 3078, 6080, 8582 are even numbers.
7. a. Numbers in order: 403, 404, 405, 406, 407, 408
Even numbers between 402 and 409 are 404, 406, 408
- b. Numbers in order: 1023, 1024, 1025, 1026, 1027, 1028
Even numbers between 1022 and 1029 are 1024, 1026, 1028



- c. Numbers in order: 2449, 2450, 2451, 2452, 2453, 2454

Even numbers between 2448 and 2455 are 2450, 2452, 2454

8. a. Numbers in order: 112, 113, 114, 115, 116, 117, 118

Odd numbers between 111 and 119 are 113, 115, 117

- b. Numbers in order: 1032, 1033, 1034, 1035, 1036, 1037

Odd numbers between 1031 and 1038 are 1033, 1035, 1037

- c. Numbers in order: 4445, 4446, 4447, 4448, 4449, 4450

Odd numbers between 4444 and 4451 are 4445, 4447, 4449

9. 2478 ends with 8 → even

2764 ends with 4 → even

2647 ends with 7 → odd

7692 ends with 2 → even

Only 2647 is an odd number; all the other numbers are even.

Odd one out: 2647

Exercise 1G

1. a. 64 is more than 60 and less than 70.

So, 64 lies between 60 and 70.

- b. 69 is more than 60 and less than 70.

So, 69 lies between 60 and 70.

- c. 75 is more than 70 and less than 80.

So, 75 lies between 70 and 80.

- d. 89 is more than 80 and less than 90.

So, 89 lies between 80 and 90.

2. a. 73 comes after 70 and before 80.



- b. 29 comes after 20 and before 30.



- c. 38 comes after 30 and before 40.



- d. 48 comes after 40 and before 50.



- e. 56 comes after 50 and before 60.



- f. 85 comes after 80 and before 90.



3. If the ones digit of a number is less than 5, round the number to the smaller tens.

If the ones digit of a number is 5 or more than 5, round the number to the next higher tens.

- a. Ones digit = 5 → round up → 70

65 70

- b. Ones digit = 9 → round up → 90

89 90

- c. Ones digit = 1 → round down → 80

81 80

- d. Ones digit = 5 → round up → 30

25 30

- e. Ones digit = 7 → round up → 30

27 30

- f. Ones digit = 2 → round down → 50

52 50

- g. Ones digit = 3 → round down → 70

73 70

- h. Ones digit = 4 → round down → 40

44 40

- i. Ones digit = 6 → round up → 40

36 40

- j. Ones digit = 8 → round up → 20

18 20

- k. Ones digit = 4 → round down → 90

94 90

- l. Ones digit = 3 → round down → 30

33 30

4. a. Total number of pens in a box = 26

Ones digit of 26 is 6 (5 or more), so round up to 30.

There are about 30 pens.

- b. Number of magazines sold by a shopkeeper in a week = 74

Ones digit of 74 is 4 (less than 5), so round down to 70.

The shopkeeper sold about 70 magazines.



- c. Number of passengers in a bus = 59
Ones digit of 59 is 9 (5 or more), so round up to 60.
There are about 60 passengers in the bus.

Learning Logs

1. a. 1213 One thousand two hundred thirteen
b. 8925 Eight thousand nine hundred twenty-five
c. 6103 Six thousand one hundred three
d. 8003 Eight thousand three
e. 9836 Nine thousand eight hundred thirty-six
f. 8553 Eight thousand five hundred fifty-three
g. 8888 Eight thousand eight hundred eighty-eight
2. a. Eight thousand five hundred thirty-eight 8538
b. Nine thousand eight hundred 9800
c. Two thousand six hundred eighty-six 2686
d. Five thousand sixteen 5016
3. a. 7652 $\rightarrow$ 600 b. 8945 $\rightarrow$ 5
c. 5076 $\rightarrow$ 70 d. 4758 $\rightarrow$ 4000
e. 1367 $\rightarrow$ 1000 f. 5690 $\rightarrow$ 600
4. a. Compare the hundreds digits:
Since $8 > 6$, 3860 is greater than 3680.
 $3860 > 3680$
b. Compare the hundreds digits:
Since $8 > 5$, 4885 is greater than 4566.
 $4885 > 4566$
c. Compare the hundreds digits:
Since $0 < 8$, 8088 is smaller than 8808.
 $8088 < 8808$
d. Compare the hundreds digits:
Since $8 > 1$, 8816 is greater than 8186.
 $8816 > 8186$
e. Compare the hundreds digits:
Since $0 < 4$, 6045 is smaller than 6405.
 $6045 < 6405$
f. Compare the hundreds digits:
Since $2 < 3$, 8235 is smaller than 8325.
 $8235 < 8325$
5. a. 5008, 5800, 5088, 5080
All numbers have 4 digits, so we compare place values. Compare the thousands digits.

All have 5 in the thousands place, so we move to the hundreds place.

5008 $\rightarrow$ 0 hundreds 5080 $\rightarrow$ 0 hundreds

5088 $\rightarrow$ 0 hundreds 5800 $\rightarrow$ 8 hundreds

Since $0 < 8$, the first three numbers are smaller than 5800.

Compare tens digits for 5008, 5080, 5088.

5008 $\rightarrow$ 0 tens 5080 $\rightarrow$ 8 tens

5088 $\rightarrow$ 8 tens

So, 5008 is the smallest.

Compare ones digits for 5080 and 5088.

5080 $\rightarrow$ 0 ones 5088 $\rightarrow$ 8 ones

So, 5080 $<$ 5088.

Final ascending order: 5008, 5080, 5088, 5800

- b. 7701, 7071, 7170, 7107

All numbers have 4 digits. So, we compare the thousands digits.

All have 7 in the thousands place, so we move to the hundreds place.

7071 $\rightarrow$ 0 hundreds 7107 $\rightarrow$ 1 hundred

7170 $\rightarrow$ 1 hundred 7701 $\rightarrow$ 7 hundreds

So, the smallest is 7071, and the largest is 7701.

Compare tens digits for 7107 and 7170.

7107 $\rightarrow$ 0 tens 7170 $\rightarrow$ 7 tens

So, 7107 $<$ 7170.

Final ascending order: 7071, 7107, 7170, 7701

6. a. 6052, 6520, 5062, 5620

All numbers have 4 digits, so we compare place values. Compare the thousands digits.

6052 $\rightarrow$ 6 thousands 6520 $\rightarrow$ 6 thousands

5062 $\rightarrow$ 5 thousands 5620 $\rightarrow$ 5 thousands

Numbers with 6 thousands are greater than numbers with 5 thousands.

So, first compare 6520 and 6052. Compare the hundreds digits (between 6520 and 6052)

6520 $\rightarrow$ 5 hundreds 6052 $\rightarrow$ 0 hundreds

So, 6520 $>$ 6052.

Now compare the hundreds digits of the remaining numbers, 5620 and 5062.

5620 $\rightarrow$ 6 hundreds; 5062 $\rightarrow$ 0 hundreds

So, 5620 $>$ 5062.

Final descending order: 6520, 6052, 5620, 5062



- Teacher's Resource Manual-3

CHAPTER 2 : ADDITION

Warm Up

1. Do it Yourself.

2. a. $69 + 100$

$$69 + 100 = 169$$

Flats 100–199 are in the 100 Building. So, flat 169 is in the 100 Building.

b. $200 + 160$

$$200 + 160 = 360$$

Flats 300–399 are in the 300 Building. So, flat 360 is in the 300 Building.

c. $389 + 100$

$$389 + 100 = 489$$

Flats 400–499 are in the 400 Building. So, flat 489 is in the 400 Building.

d. $700 + 83$

$$700 + 83 = 783$$

Flats 700–799 are in the 700 Building. So, flat 783 is in the 700 Building.

Exercise 2A

1. a. Break the numbers into tens and ones.

$$\begin{array}{r} 43 \rightarrow 40 + 3 \\ + 84 \rightarrow 80 + 4 \\ \hline \end{array}$$

First add the ones and then the tens.

$$\begin{array}{r} 43 \rightarrow 40 + 3 \\ + 84 \rightarrow 80 + 4 \\ \hline \text{Sum} \rightarrow 127 \quad 120 + 7 \end{array}$$

$$43 + 84 = 127$$

b. Break the numbers into tens and ones.

$$\begin{array}{r} 25 \rightarrow 20 + 5 \\ + 36 \rightarrow 30 + 6 \\ \hline \end{array}$$

First add the ones and then the tens.

$$\begin{array}{r} 25 \rightarrow 20 + 5 \\ + 36 \rightarrow 30 + 6 \\ \hline \text{Sum} \rightarrow 61 \quad 50 + 11 = 60 + 1 \end{array}$$

$$25 + 36 = 61$$

c. Break the numbers into tens and ones.

$$\begin{array}{r} 32 \rightarrow 30 + 2 \\ + 24 \rightarrow 20 + 4 \\ \hline \end{array}$$

First add the ones and then the tens.

$$\begin{array}{r} 32 \rightarrow 30 + 2 \\ + 24 \rightarrow 20 + 4 \\ \hline \text{Sum} \rightarrow 56 \quad 50 + 6 \end{array}$$

$$32 + 24 = 56$$

d. Break the numbers into tens and ones.

$$\begin{array}{r} 34 \rightarrow 30 + 4 \\ + 44 \rightarrow 40 + 4 \\ \hline \end{array}$$

First add the ones and then the tens.

$$\begin{array}{r} 34 \rightarrow 30 + 4 \\ + 44 \rightarrow 40 + 4 \\ \hline \text{Sum} \rightarrow 78 \quad 70 + 8 \end{array}$$

$$34 + 44 = 78$$

e. Break the numbers into tens and ones.

$$\begin{array}{r} 56 \rightarrow 50 + 6 \\ + 31 \rightarrow 30 + 1 \\ \hline \end{array}$$

First add the ones and then the tens.

$$\begin{array}{r} 56 \rightarrow 50 + 6 \\ + 31 \rightarrow 30 + 1 \\ \hline \text{Sum} \rightarrow 87 \quad 80 + 7 \end{array}$$

$$56 + 31 = 87$$

f. Break the numbers into tens and ones.

$$\begin{array}{r} 45 \rightarrow 40 + 5 \\ + 23 \rightarrow 20 + 3 \\ \hline \end{array}$$

First add the ones and then the tens.

$$\begin{array}{r} 45 \rightarrow 40 + 5 \\ + 23 \rightarrow 20 + 3 \\ \hline \text{Sum} \rightarrow 68 \quad 60 + 8 \end{array}$$

$$45 + 23 = 68$$

2. a. Break the smaller number into tens and ones.

$$\begin{array}{r} 28 \rightarrow 28 \\ + 24 \rightarrow 20 + 4 \\ \hline \end{array}$$

Add 28 and 20 first and then add the sum obtained and 4.

$$\begin{array}{r} 28 \rightarrow 28 \\ + 24 \rightarrow 20 + 4 \\ \hline \text{Sum} \rightarrow 52 \quad 48 + 4 \end{array}$$

- b. Break the smaller number into tens and ones.

$$\begin{array}{r} 45 \rightarrow 45 \\ + 14 \rightarrow 10 + 4 \\ \hline \end{array}$$

Add 45 and 10 first and then add the sum obtained and 4.

$$\begin{array}{r} 45 \rightarrow 45 \\ + 14 \rightarrow 10 + 4 \\ \hline \text{Sum} \rightarrow 59 \quad 55 + 4 \end{array}$$

- c. Break the smaller number into tens and ones.

$$\begin{array}{r} 55 \rightarrow 55 \\ + 32 \rightarrow 30 + 2 \\ \hline \end{array}$$

Add 55 and 30 first and then add the sum obtained and 2.

$$\begin{array}{r} 55 \rightarrow 55 \\ + 32 \rightarrow 30 + 2 \\ \hline \text{Sum} \rightarrow 87 \quad 85 + 2 \end{array}$$

- d. Break the smaller number into tens and ones.

$$\begin{array}{r} 43 \rightarrow 43 \\ + 21 \rightarrow 20 + 1 \\ \hline \end{array}$$

Add 43 and 20 first and then add the sum obtained and 1.

$$\begin{array}{r} 43 \rightarrow 43 \\ + 21 \rightarrow 20 + 1 \\ \hline \text{Sum} \rightarrow 64 \quad 63 + 1 \end{array}$$

- e. Break the smaller number into tens and ones.

$$\begin{array}{r} 24 \rightarrow 24 \\ + 15 \rightarrow 10 + 5 \\ \hline \end{array}$$

Add 24 and 10 first and then add the sum obtained and 5.

$$\begin{array}{r} 24 \rightarrow 24 \\ + 15 \rightarrow 10 + 5 \\ \hline \text{Sum} \rightarrow 39 \quad 34 + 5 \end{array}$$

- f. Break the smaller number into tens and ones.

$$\begin{array}{r} 71 \rightarrow 71 \\ + 26 \rightarrow 20 + 6 \\ \hline \end{array}$$

Add 71 and 20 first and then add the sum obtained and 6.

$$\begin{array}{r} 71 \rightarrow 71 \\ + 26 \rightarrow 20 + 6 \\ \hline \text{Sum} \rightarrow 97 \quad 91 + 6 \end{array}$$

Exercise 2B

1. a. Write the numbers in columns and add them.

Step 1. Add the ones.				Step 2. Add the tens.				Step 3. Add the hundreds.			
H	T	O		H	T	O		H	T	O	
4	3	2		4	3	2		4	3	2	
+	1	3	0	+	1	3	0	+	1	3	0
		2			6	2		5	6	2	

Therefore, $432 + 130 = 562$.



- b. Write the numbers in columns and add them.

Step 1. Add the ones.

H	T	O
7	3	5
+	1	1
		9

Step 2. Add the tens.

H	T	O
7	3	5
+	1	1
	4	9

Step 3. Add the hundreds.

H	T	O
7	3	5
+	1	1
8	4	9

Therefore, $735 + 114 = 849$.

- c. Write the numbers in columns and add them.

Step 1. Add the ones.

H	T	O
2	4	5
+	3	2
		9

Step 2. Add the tens.

H	T	O
2	4	5
+	3	2
	6	9

Step 3. Add the hundreds.

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

Therefore, $245 + 324 = 569$.

- d. Write the numbers in columns and add them.

Step 1. Add the ones.

H	T	O
5	2	3
+	1	2
		6

Step 2. Add the tens.

H	T	O
5	2	3
+	1	2
	4	6

Step 3. Add the hundreds.

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

Therefore, $523 + 123 = 646$.

- e. Same as above:

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

- f. Same as above:

H	T	O
5	3	3
+	3	4
8	7	7

- g. Same as above:

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

- h. Same as above:

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

2. a. Write the numbers in columns and add them.

Step 1. Add the ones: $7 + 6 = 13$ ones

Regroup 13 ones as 1 ten 3 ones.

Write 3 in the ones place and carry over 1 to the tens column.

H	T	O
	1	
	3	3
+	4	1
		3

Step 2. Add the tens:

$$1 + 3 + 1 = 5 \text{ tens}$$

Write 5 in the tens place.

H	T	O
	1	
	3	3
+	4	1
	5	3

Step 3. Add the hundreds:

$$3 + 4 = 7 \text{ hundreds}$$

Write 7 in the hundreds place.

Therefore, $337 + 416 = 753$.

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

- b. Same as above:

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

- c. Same as above:

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

- d. Write the numbers in columns and add them.

Step 1. Add the ones:

$$2 + 4 = 6 \text{ ones}$$

H	T	O
	1	6
+	2	9
		6

Step 2. Add the tens:

$$6 + 9 = 15 \text{ tens} = 1 \text{ hundred } 5 \text{ tens}$$

Write 5 in the tens place and carry over 1 to the hundreds column.

H	T	O
1		6
+	2	9
	5	6

Step 3. Add the hundreds:

$$1 + 1 + 2 = 4 \text{ hundreds}$$

Write 4 in the hundreds place.

Therefore, $162 + 294 = 456$.

H	T	O
1		6
+	2	9
4	5	6

- e. Same as above:

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

- f. Same as above:

H	T	O
	1	
	5	7
+	1	8
7	5	5

g. Write the numbers in columns and add them.

Step 1. Add the ones:

$8 + 6 = 14$ ones = 1 ten 4 ones

Write 4 in the ones place and carry over 1 to the tens column.

	H	T	O
		1	
	1	9	8
+	1	3	6
			4

Step 2. Add the tens:

$1 + 9 + 3 = 13$ tens = 1 hundred 3 tens

Write 3 in the tens place and carry over 1 to the hundreds column.

	H	T	O
	1	1	
	1	9	8
+	1	3	6
		3	4

Step 3. Add the hundreds:

$1 + 1 + 1 = 3$ hundreds

Write 3 in the hundreds place.

Therefore, $198 + 136 = 334$.

	H	T	O
	1	1	
	1	9	8
+	1	3	6
	3	3	4

h. Same as above:

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

i. Write the numbers in columns and add them.

Step 1. Add the ones:

$4 + 2 = 6$ ones

Write 6 in the ones place.

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

Step 2. Add the tens:

$6 + 3 = 9$ tens

Write 9 in the tens place.

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

Step 3. Add the hundreds:

$5 + 8 = 13$ hundreds = 1 thousand 3 hundreds

Write 3 in the hundreds place and 1 in the thousands place.

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

j. Same as above:

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

k. Same as above:

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

l. Same as above:

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

3. a.

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

$536 + 243 = 779$

b.

	H	T	O
	1	1	
	3	2	6
+	2	9	7
	6	2	3

$326 + 297 = 623$

c.

	H	T	O
	1	1	
	3	9	9
+	4	5	5
	8	5	4

$399 + 455 = 854$

d.

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

$632 + 398 = 1030$

e.

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

$273 + 189 = 462$

f.

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

$145 + 968 = 1113$

Exercise 2C

1. a.

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

b.

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



c.

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

d.

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

k.

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

l.

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

2. a.

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

b.

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

m.

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

n.

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

c.

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

d.

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

o.

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

3. a.

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

b.

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

c.

Th	H	T	O
1	2	2	0
+	2	1	0
3	3	2	2

d.

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

e.

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

f.

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

g.

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

h.

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

i.

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

j.

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

Exercise 2D

1. a. Write the numbers in columns correctly and add them.

Step 1. Add the ones:

$6 + 5 = 11$ ones = 1 ten 1 one

Step 2. Add the tens:

$1 + 5 + 3 = 9$ tens

Step 3. Add the hundreds:

$3 + 5 = 8$ hundreds

Step 4. Add the thousands:

$2 + 4 = 6$ thousands

Therefore, $2356 + 4535 = 6891$.

- b. **Step 1.** Add the ones:

$5 + 9 = 14$ ones = 1 ten 4 ones

Step 2. Add the tens:

$1 + 4 + 6 = 11$ tens = 1 hundred 1 ten

Step 3. Add the hundreds:

$1 + 9 + 0 = 10$ hundreds = 1 thousand 0 hundreds

Step 4. Add the thousands:

$1 + 6 + 2 = 9$ thousands

Therefore, $6945 + 2069 = 9014$.

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

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

c. Same as above:

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

d. Same as above:

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

e. **Step 1.** Add the ones:

$$4 + 7 + 3 = 14 \text{ ones} = 1 \text{ ten } 4 \text{ ones}$$

Step 2. Add the tens:

$$1 + 9 + 8 + 4 = 22 \text{ tens} = 2 \text{ hundreds } 2 \text{ tens}$$

Step 3. Add the hundreds:

$$2 + 4 + 7 + 0 = 13 \text{ hundreds}$$

$$= 1 \text{ thousand } 3 \text{ hundreds}$$

Step 4. Add the thousands:

$$1 + 5 + 1 + 2 = 9 \text{ thousands}$$

$$\text{Therefore, } 5494 + 1787 + 2043 = 9324.$$

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

f. Same as above:

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

g. Same as above:

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

h. Same as above:

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

2. a.

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

b.

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

c.

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

e.

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

g.

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

i.

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

k.

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

m.

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

o.

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

d.

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

f.

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

h.

	Th	H	T	O
	1		1	
	1	7	2	4
+	2	4	4	8
	4	1	7	2

j.

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

l.

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

n.

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



3. a. $56 + 0 = 56$
 c. $734 + 0 = 734$
 e. $568 + 1 = 569$
 g. $1 + 362 = 363$
4. a. $82 + 10 = 92$
 c. $3649 + 10 = 3659$
 e. $2040 + 100 = 2140$
5. a. $74 + 10 = 84$
 c. $193 + 10 = 203$
 e. $100 + 5346 = 5446$
 g. $1000 + 1736 = 2736$
6. a. $2875 + 10 = 2885$ (M)
 b. $4438 + 10 = 4448$ (O)
 c. $7547 + 100 = 7647$ (A)
 d. $6399 + 10 = 6409$ (E)
 e. $8930 + 100 = 9030$ (I)
 f. $8913 + 1000 = 9913$ (T)
 g. $9398 + 100 = 9498$ (S)
 h. $7843 + 1000 = 8843$ (H)
 i. $4538 + 1000 = 5538$ (L)
 j. $6464 + 10 = 6474$ (V)

I	L	O	V	E	M	A	T	H	S
---	---	---	---	---	---	---	---	---	---

e. i. b. j. d. a. c. f. h. g.

The secret message - **I LOVE MATHS**

Exercise 2E

2.
$$\begin{array}{r} 51 \\ + 43 \\ \hline 94 \end{array}$$
 round off $\rightarrow$
$$\begin{array}{r} 50 \\ + 40 \\ \hline 90 \end{array}$$

 Actual Sum > Estimated Sum
3.
$$\begin{array}{r} 46 \\ + 55 \\ \hline 101 \end{array}$$
 round off $\rightarrow$
$$\begin{array}{r} 50 \\ + 60 \\ \hline 110 \end{array}$$

 Actual Sum < Estimated Sum
4.
$$\begin{array}{r} 56 \\ + 41 \\ \hline 97 \end{array}$$
 round off $\rightarrow$
$$\begin{array}{r} 60 \\ + 40 \\ \hline 100 \end{array}$$

 Actual Sum < Estimated Sum
5.
$$\begin{array}{r} 72 \\ + 11 \\ \hline 83 \end{array}$$
 round off $\rightarrow$
$$\begin{array}{r} 70 \\ + 10 \\ \hline 80 \end{array}$$

 Actual Sum > Estimated Sum
6.
$$\begin{array}{r} 59 \\ + 35 \\ \hline 94 \end{array}$$
 round off $\rightarrow$
$$\begin{array}{r} 60 \\ + 40 \\ \hline 100 \end{array}$$

 Actual Sum < Estimated Sum

Exercise 2F

1. Bags of rice in the first store =
$$\begin{array}{r} 562 \\ + 809 \\ \hline 1371 \end{array}$$

 Bags of rice in the second store =
 Total bags of rice =

So, there are 1371 bags of rice in both stores.

2. Number of mangoes =
$$\begin{array}{r} 565 \\ + 645 \\ \hline 1210 \end{array}$$

 Number of bananas =
 Number of pineapples =
 Total number of fruits =

So, the fruit seller has 1714 fruits in total.

3. Visitors on Monday =
$$\begin{array}{r} 3358 \\ + 2946 \\ \hline 6304 \end{array}$$

 Visitors on Tuesday =
 Total visitors =

So, 6304 visitors visited the museum in two days.

4. Number of English books sold =
$$\begin{array}{r} 2783 \\ + 3345 \\ \hline 6128 \end{array}$$

 Number of Mathematics books sold =
 Number of Science books sold =
 Total books sold =

So, the publisher sold 8931 books in August.

5. Number of Cows =
$$\begin{array}{r} 1316 \\ + 3672 \\ \hline 5008 \end{array}$$

 Number of Sheep =
 Number of Goats =
 Total number of animals =

So, there are 7284 animals in the village.

6. Trees planted in 2023 =
$$\begin{array}{r} 1843 \\ + 1916 \\ \hline 3759 \end{array}$$

 Trees planted in 2024 =
 Trees planted in 2025 =
 Total trees planted =

So, 7464 trees were planted in three years.

7. Number of Apple juice bottles =
$$\begin{array}{r} 2107 \\ + 1869 \\ \hline 3976 \end{array}$$

 Number of Orange juice bottles =
 Number of Guava juice bottles =
 Total number of juice bottles =

So, there are 6771 juice bottles in the shop.

8. Wheat produced in kg =
$$\begin{array}{r} 2824 \\ + 4049 \\ \hline 6873 \end{array}$$

 Barley produced in kg =
 Rice produced in kg =
 Total production =

So, the farmer's total production in 2025 is 7765 kg.

Learning Logs

1. a.

	H	T	O
		1	
	1	6	4
+	4	0	7
	5	7	1

c.

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

2. a.

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

c.

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

e.

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

g.

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

3. a.

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

c.

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

b.

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

d.

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

b.

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

d.

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

f.

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

h.

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

4. a.

Money Shruti had =	5	0	9	5	
More money needed =	+	4	0	9	5
Cost of the mobile phone =		9	1	9	0

So, the cost of the mobile phone is ₹9190.

b.

Number of Mango trees =	2	3	4	5
Number of Litchi trees =		5	6	2
Number of Apple trees=	+	2	5	9
Total Number of trees =		3	1	6

So, there are 3166 trees in the orchard.

c.

Chocolates in the first box =		8	4	6	5
Chocolates in the second box =	+	1	2	7	8
Total chocolates =		9	7	4	3

So, there were 9743 chocolates in all.

d.

Tickets sold on Monday =	6	0	5	2	
Tickets sold on Tuesday =	+	3	4	5	6
Total tickets sold =		9	5	0	8

So, 9508 tickets were sold in the two days.

5. a. Starting number = 4000

Numbers skipped in one jump = 10

Number reached after first jump = $4000 + 10 = 4010$

So, she will reach 4010 in the first jump.

b. Each jump = +10

Five jumps = $5 \times 10 = 50$

Number reached after fifth jump = $4000 + 50 = 4050$

So, she will reach 4050 in the fifth jump.

Mental Maths

1. a. 4 tens = 40

5 hundreds = 500

6 ones = 6

So the expression is: $3867 + 40 + 500 + 6$

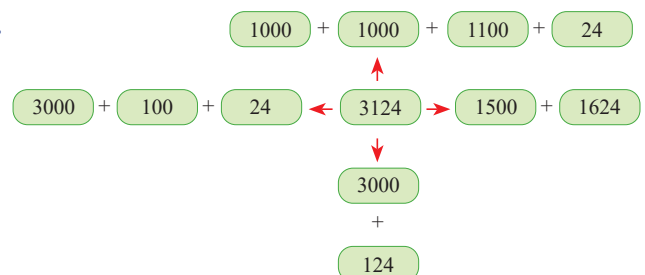
Thus, the correct option is iii.

b. Greatest 3-digit number = 999

$999 + 12 = 1011$

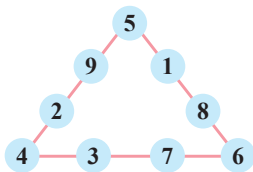
Thus, the correct option is iii.

2.



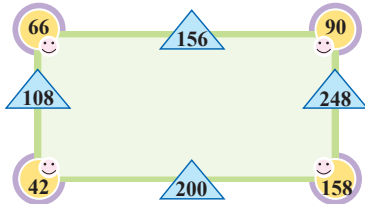
HOTS

1.



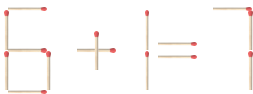
(Answers may vary)

2.



Puzzle

1.



2. Not possible

CHAPTER 3 : SUBTRACTION

Warm Up

1. a.

	T	O
	7	5
-	6	6
		9

plastic bags
paper cups

b.

	H	T	O
	1	7	3
-		9	7
		7	6

paper plates
napkins

c.

	T	O
	9	7
-	7	5
	2	2

napkins
plastic bags

2. Plastic bags = 75 and Paper cups = 66

$$75 - 66 = 9$$

There are 9 more plastic bags than paper cups.

3. Paper plates = 173 and Napkins = 97

$$173 - 97 = 76$$

There are 76 more paper plates than napkins.

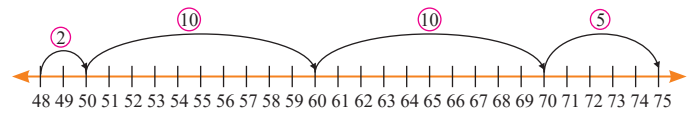
4. Napkins = 97 and Plastic bags = 75

$$97 - 75 = 22$$

There are 22 more napkins than plastic bags.

Exercise 3A

1. a. Locate 48 on the number line and count up from 48 to 75.



$$\text{So, } 75 - 48 = 27.$$

b. Locate 33 on the number line and count up from 33 to 95. (Same as above)

$$\text{So, } 95 - 33 = 62.$$

c. Locate 25 on the number line and count up from 25 to 57. (Same as above)

$$\text{So, } 57 - 25 = 32.$$

d. Locate 27 on the number line and count up from 27 to 45. (Same as above)

$$\text{So, } 45 - 27 = 18.$$

e. Locate 11 on the number line and count up from 11 to 37. (Same as above)

$$\text{So, } 37 - 11 = 26.$$

f. Locate 59 on the number line and count up from 59 to 81. (Same as above)

$$\text{So, } 81 - 59 = 22.$$

2. a.

$$70 - 49 = ?$$

$$70 - 40 = 30$$

$$40 + 9 = 49$$

$$30 - 9 = 21$$

$$\text{So, } 70 - 49 = 21.$$

b.

$$63 - 28 = ?$$

$$63 - 20 = 43$$

$$20 + 8 = 28$$

$$43 - 8 = 35$$

$$\text{So, } 63 - 28 = 35.$$

c.

$$85 - 34 = ?$$

$$85 - 30 = 55$$

$$30 + 4 = 34$$

$$55 - 4 = 51$$

$$\text{So, } 85 - 34 = 51.$$

d.

$$76 - 37 = ?$$

$$76 - 30 = 46$$

$$30 + 7 = 37$$

$$46 - 7 = 39$$

$$\text{So, } 76 - 37 = 39.$$

e. $69 - 31 = ?$

$69 - 30 = 39$
 $39 - 1 = 38$
 So, $69 - 31 = 38$.

f. $66 - 34 = ?$

$66 - 30 = 36$
 $36 - 4 = 32$
 So, $66 - 34 = 32$.

3. a.

95
 $90 + 5$
 82
 $80 + 2$

Subtracting tens: $90 - 80 = 10$
 Subtracting ones: $5 - 2 = 3$
 Combining the differences, we get $10 + 3 = 13$.
 So, $95 - 82 = 13$.

b.

99
 $90 + 9$
 26
 $20 + 6$

Subtracting tens: $90 - 20 = 70$
 Subtracting ones: $9 - 6 = 3$
 Combining the differences, we get $70 + 3 = 73$.
 So, $99 - 26 = 73$.

c.

56
 $50 + 6$
 14
 $10 + 4$

Subtracting tens: $50 - 10 = 40$
 Subtracting ones: $6 - 4 = 2$
 Combining the differences, we get $40 + 2 = 42$.
 So, $56 - 14 = 42$.

d.

87
 $80 + 7$
 15
 $10 + 5$

Subtracting tens: $80 - 10 = 70$
 Subtracting ones: $7 - 5 = 2$
 Combining the differences, we get $70 + 2 = 72$.
 So, $87 - 15 = 72$.

e.

57
 $50 + 7$
 23
 $20 + 3$

Subtracting tens: $50 - 20 = 30$
 Subtracting ones: $7 - 3 = 4$
 Combining the differences, we get $30 + 4 = 34$.
 So, $57 - 23 = 34$.

f.

49
 $40 + 9$
 18
 $10 + 8$

Subtracting tens: $40 - 10 = 30$
 Subtracting ones: $9 - 8 = 1$
 Combining the differences, we get $30 + 1 = 31$.
 So, $49 - 18 = 31$.

4. Two numbers whose difference is 42 are 100 and 58, 60 and 18. (Answer may vary)

Exercise 3B

1. a.

Step 1. Subtract the ones.
 $6 - 2 = 4$ ones
Step 2. Subtract the tens.
 $3 - 1 = 2$ tens
Step 3. Subtract the hundreds.
 $4 - 3 = 1$ hundred

H	T	O
4	3	6
-	3	1
		4

H	T	O
4	3	6
-	3	1
	2	4

H	T	O
4	3	6
-	3	1
1	2	4

So, $436 - 312 = 124$.

b. Same as above:

H	T	O
5	7	6
-	4	2
	1	5

c. Same as above:

H	T	O
9	3	7
-	4	3
	5	0

d. Same as above:

H	T	O
8	6	9
-	5	0
	3	6

2. a. **Step 1. Subtract the ones.**

4 ones cannot be subtracted from 3 ones.
 So, regroup tens and ones.
 4 tens 3 ones = 3 tens 13 ones
 Now, $13 - 4 = 9$ ones.

H	T	O
	3	13
	6	4
-	3	1
		9



Step 2. Subtract the tens.

$$3 - 1 = 2 \text{ tens}$$

H	T	O
	3	13
6	~~4~~	~~3~~
-	3	1 4
		2 9

Step 3. Subtract the hundreds.

$$6 - 3 = 3 \text{ hundreds}$$

H	T	O
	3	13
6	~~4~~	~~3~~
-	3	1 4
		2 9

So, $643 - 314 = 329$.

b. Same as above:

H	T	O
	5	10
5	~~6~~	~~0~~
-	2	3 8
		3 2 2

c. Same as above:

H	T	O
	5	12
7	~~6~~	~~2~~
-	1	4 8
		6 1 4

d. Same as above:

H	T	O
	3	12
5	~~4~~	~~2~~
-	1	1 7
		4 2 5

3. a. **Step 1.** Subtract the ones.

$$5 - 3 = 2 \text{ ones}$$

H	T	O
6	4	5
-	1	8 3
		2

Step 2. Subtract the tens.

8 tens cannot be subtracted from 4 tens.

So, regroup hundreds and tens.

6 hundreds 4 tens = 5 hundreds 14 tens

Now, $14 - 8 = 6$ tens.

H	T	O
5	14	
~~6~~	~~4~~	5
-	1	8 3
		6 2

Step 3. Subtract the hundreds.

$$5 - 1 = 4 \text{ hundreds}$$

So, $645 - 183 = 462$.

H	T	O
5	14	
~~6~~	~~4~~	5
-	1	8 3
		4 6 2

b. Same as above:

H	T	O
6	12	
~~7~~	~~2~~	4
-	3	4 2
		3 8 2

c. Same as above:

H	T	O
7	14	
~~8~~	~~4~~	6
-	4	8 3
		3 6 3

d. Same as above:

H	T	O
3	13	
~~4~~	~~3~~	9
-	2	5 3
		1 8 6

4. a. **Step 1.** Subtract the ones.

2 ones < 5 ones, so regroup tens and ones.

3 tens 2 ones = 2 tens 12 ones

Now, $12 - 5 = 7$ ones.

H	T	O
	2	12
4	~~3~~	~~2~~
-	1	7 5
		7

Step 2. Subtract the tens.

2 tens < 7 tens, so regroup hundreds and tens.

4 hundreds 2 tens = 3 hundreds

12 tens

Now, $12 - 7 = 5$ tens.

H	T	O
	12	
3	~~2~~	12
~~4~~	3	~~2~~
-	1	7 5
		5 7

Step 3. Subtract the hundreds.

$$3 - 1 = 2 \text{ hundreds}$$

So, $432 - 175 = 257$.

H	T	O
	12	
3	~~2~~	12
~~4~~	3	~~2~~
-	1	7 5
		2 5 7

b. Same as above:

H	T	O
	9	
5	10	14
~~6~~	~~0~~	~~4~~
-	2	8 5
		3 1 9

c. Same as above:

H	T	O
	15	
6	~~5~~	15
~~7~~	~~6~~	~~5~~
-	5	8 7
		1 7 8

d. Same as above:

H	T	O
	12	
8	~~2~~	14
~~9~~	~~3~~	~~4~~
-	6	4
	2	8

5. Step 1. Subtract the ones.

4 ones cannot be subtracted from 0 ones. So, regroup tens and ones. But there are no tens. So, first regroup hundreds and tens and then tens and ones. 5 hundreds 0 tens = 4 hundreds 10 tens
10 tens 0 ones = 9 tens 10 ones.
Now, $10 - 4 = 6$ ones.

Step 2. Subtract the tens.

$9 - 9 = 0$ tens

Step 3. Subtract the hundreds.

$4 - 3 = 1$ hundred

H	T	O
	9	
4	~~10~~	10
~~5~~	~~0~~	~~0~~
-	3	9
	1	0

So, $500 - 394 = 106$.

b. Same as above:

H	T	O
	9	
8	~~10~~	10
~~9~~	~~0~~	~~0~~
-	4	8
	4	1

c. Same as above:

H	T	O
	11	
2	~~1~~	10
~~3~~	~~2~~	~~0~~
-	1	7
	1	4

d. Same as above:

H	T	O
	9	
4	~~10~~	14
~~5~~	~~0~~	~~4~~
-	2	4
	2	5

H	T	O
	9	
4	~~10~~	10
~~5~~	~~0~~	~~0~~
-	3	9
		6

H	T	O
	9	
4	~~10~~	10
~~5~~	~~0~~	~~0~~
-	3	9
	0	6

Exercise 3C

1. a. Write the numbers in columns and subtract them.

Step 1. Subtract the ones.

$9 - 5 = 4$ ones

Step 2. Subtract the tens.

$5 - 4 = 1$ ten

Step 3. Subtract the hundreds. $4 - 2 = 2$ hundreds

Step 4. Subtract the thousands. $6 - 3 = 3$ thousands

So, $6459 - 3245 = 3214$.

Th	H	T	O
6	4	5	9
-	3	2	4
	3	2	1

b. Same as above:

Th	H	T	O
7	6	0	4
-	5	6	0
	2	0	3

c. Same as above:

Th	H	T	O
9	9	4	9
-	7	8	3
	2	1	8

d. Same as above:

Th	H	T	O
4	8	7	4
-	1	3	4
	3	5	3

e. Same as above:

Th	H	T	O
6	4	9	1
-	5	2	7
	1	2	2

f. Same as above:

Th	H	T	O
4	6	5	9
-	3	2	3
	1	4	2

g. Same as above:

Th	H	T	O
7	2	4	9
-	3	2	1
	4	0	3

h. Same as above:

Th	H	T	O
8	4	5	6
-	8	4	5
	0	0	0

2. a.

Th	H	T	O
3	2	1	4
-	1	1	0
	2	1	1

b.

Th	H	T	O
5	6	7	3
-	2	4	3
	3	2	4



c.

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

d.

Th	H	T	O
9	5	7	1
-	4	3	2
5	2	5	1

e.

Th	H	T	O
8	4	3	4
-	2	4	1
6	0	2	0

f.

Th	H	T	O
9	8	6	0
-	2	0	4
7	8	2	0

g.

Th	H	T	O
5	6	1	2
-	2	3	0
3	3	1	1

h.

Th	H	T	O
4	2	1	3
-	2	2	1
2	0	0	1

Exercise 3D

1. a. **Step 1.** Subtract the ones. 2 ones < 6 ones, so, regroup tens and ones.

5 tens 2 ones = 4 tens 12 ones

Now, $12 - 6 = 6$ ones.

Step 2. Subtract the tens. 4 tens < 7 tens, so, regroup hundreds and tens.

6 hundreds 4 tens = 5 hundreds 14 tens

Now, $14 - 7 = 7$ tens.

Step 3. Subtract the hundreds. 5 hundreds < 9 hundreds, so regroup thousands and hundreds.

8 thousands 5 hundreds = 7 thousands 15 hundreds

Now, $15 - 9 = 6$ hundreds.

Step 4. Subtract the thousands. $7 - 5 = 2$ thousands.

So, $8652 - 5976 = 2676$.

- b. Same as above:

Th	H	T	O
	9	14	
6	10	4	14
-	3	9	6
3	0	8	7

- c. Same as above:

Th	H	T	O
	13	9	
7	3	10	15
-	2	7	7
5	6	2	9

- d. Same as above:

Th	H	T	O
5	17		
-	4	8	9
1	9	0	1

- e. Same as above:

Th	H	T	O
	13	9	
5	3	10	10
-	3	9	9
2	4	0	1

- f. Same as above:

Th	H	T	O
	12	13	
3	2	3	14
-	2	6	5
1	6	8	9

- g. Same as above:

Th	H	T	O
3	16	6	15
-	3	8	4
0	8	2	9

- h. Same as above:

Th	H	T	O
4	14		
-	3	9	6
1	5	3	1

2. a.

Th	H	T	O
	3	16	
7	4	6	7
-	5	1	8
2	2	8	4

- b.

Th	H	T	O
	7	2	17
4	8	3	7
-	2	6	3
2	1	9	8

- c.

Th	H	T	O
	14		
5	4	14	
-	3	9	9
2	5	5	0

- d.

Th	H	T	O
	15		
4	3	16	
-	3	9	9
1	6	7	3

- e.

Th	H	T	O
	16		
7	6	17	
-	4	9	9
3	7	8	0

- f.

Th	H	T	O
	9		
	5	10	16
-	7	3	9
2	2	0	9

g.

Th	H	T	O
	11		
6	13		
7	2	3	7
-	2	6	5
	4	5	8

h.

Th	H	T	O
	9	9	
7	10	10	10
8	0	0	0
-	3	9	6
	4	0	3

3. a. $273 - 0 = 273$ b. $564 - 0 = 564$
 c. $7364 - 0 = 7364$ d. $575 - 1 = 574$
 e. $649 - 1 = 648$ f. $277 - 1 = 276$
 4. a. $425 - 10 = 415$ b. $896 - 10 = 886$
 c. $567 - 100 = 467$ d. $4364 - 100 = 4264$
 e. $2645 - 1000 = 1645$ f. $5730 - 1000 = 4730$

Exercise 3E

1. $87 - 23$

Actual	Estimated
$\begin{array}{r} 87 \\ - 23 \\ \hline 64 \end{array}$	$\begin{array}{r} 90 \\ - 20 \\ \hline 70 \end{array}$

The estimated difference is greater than the actual difference.

2. $167 - 94$

Actual	Estimated
$\begin{array}{r} 167 \\ - 94 \\ \hline 73 \end{array}$	$\begin{array}{r} 170 \\ - 90 \\ \hline 80 \end{array}$

The estimated difference is greater than the actual difference.

3. $94 - 65$

Actual	Estimated
$\begin{array}{r} 94 \\ - 65 \\ \hline 29 \end{array}$	$\begin{array}{r} 90 \\ - 70 \\ \hline 20 \end{array}$

The actual difference is greater than the estimated difference.

4. $264 - 185$

Actual	Estimated
$\begin{array}{r} 264 \\ - 185 \\ \hline 79 \end{array}$	$\begin{array}{r} 260 \\ - 190 \\ \hline 70 \end{array}$

The actual difference is greater than the estimated difference.

Exercise 3F

1. Number from which subtraction is to be done = $\begin{array}{r} 981 \\ - 769 \\ \hline 212 \end{array}$
 Number obtained after subtraction = $\begin{array}{r} 981 \\ - 769 \\ \hline 212 \end{array}$
 Required number to be subtracted = $\begin{array}{r} 981 \\ - 769 \\ \hline 212 \end{array}$

Therefore, 212 should be subtracted from 981 to get 769.

2. Total number after addition = $\begin{array}{r} 9040 \\ - 6054 \\ \hline 2986 \end{array}$
 Given number = $\begin{array}{r} 9040 \\ - 6054 \\ \hline 2986 \end{array}$
 Required number to be added = $\begin{array}{r} 9040 \\ - 6054 \\ \hline 2986 \end{array}$

Therefore, 2986 should be added to 6054 to get 9040.

3. Total number of packets of sweets purchased = $\begin{array}{r} 840 \\ - 681 \\ \hline 159 \end{array}$
 Number of packets distributed = $\begin{array}{r} 840 \\ - 681 \\ \hline 159 \end{array}$
 Number of packets left = $\begin{array}{r} 840 \\ - 681 \\ \hline 159 \end{array}$

Therefore, 159 packets of sweets were left.

4. Money in the bank account = $\begin{array}{r} 8515 \\ - 3864 \\ \hline 4651 \end{array}$
 Money withdrawn = $\begin{array}{r} 8515 \\ - 3864 \\ \hline 4651 \end{array}$
 Money left in the account = $\begin{array}{r} 8515 \\ - 3864 \\ \hline 4651 \end{array}$

Therefore, ₹4651 was left in his account.

5. Total number of seats in the theatre = $\begin{array}{r} 2100 \\ - 1931 \\ \hline 169 \end{array}$
 Number of people who saw the show = $\begin{array}{r} 2100 \\ - 1931 \\ \hline 169 \end{array}$
 Number of vacant seats = $\begin{array}{r} 2100 \\ - 1931 \\ \hline 169 \end{array}$

Therefore, 169 seats remained vacant.

6. Greater number = $\begin{array}{r} 8970 \\ - 1479 \\ \hline 7491 \end{array}$
 Difference between the two numbers = $\begin{array}{r} 8970 \\ - 1479 \\ \hline 7491 \end{array}$
 Smaller number = $\begin{array}{r} 8970 \\ - 1479 \\ \hline 7491 \end{array}$

Therefore, the smaller number is 7491.

Exercise 3G

1. a. **Step 1:** Add (+) numbers **Step 2:** Find the difference

$\begin{array}{r} 3231 \\ + 987 \\ \hline 4218 \end{array}$	$\begin{array}{r} 4218 \\ - 1965 \\ \hline 2253 \end{array}$
---	--

So, $3231 - 1965 + 987 = 2253$.

- b. Same as above.
 $3256 - 4589 + 1634 = 301$
 c. $2634 + 1687 - 834 - 1622$

Step 1: Add (+) numbers	Step 2: Add (-) numbers
$\begin{array}{r} 2634 \\ + 1687 \\ \hline 4321 \end{array}$	$\begin{array}{r} 834 \\ + 1622 \\ \hline 2456 \end{array}$ (- sign)



Step 3: Find the difference

$$\begin{array}{r} 4\ 3\ 2\ 1 \\ - 2\ 4\ 5\ 6 \\ \hline 1\ 8\ 6\ 5 \end{array}$$

So, $2634 + 1687 - 834 - 1622 = 1865$.

d. $8532 - 1986 + 3756 - 5288$

Step 1: Add (+)
numbers

$$\begin{array}{r} 8\ 5\ 3\ 2 \\ + 3\ 7\ 5\ 6 \\ \hline 1\ 2\ 2\ 8\ 8 \end{array}$$

Step 2: Add (-)
numbers

$$\begin{array}{r} 1\ 9\ 8\ 6 \\ + 5\ 2\ 8\ 8 \\ \hline 7\ 2\ 7\ 4 \end{array} \quad (- \text{ sign})$$

Step 3: Find the difference

$$\begin{array}{r} 1\ 2\ 2\ 8\ 8 \\ - 7\ 2\ 7\ 4 \\ \hline 5\ 0\ 1\ 4 \end{array}$$

So, $8532 - 1986 + 3756 - 5288 = 5014$.

e. Same as part c.

$$4702 + 8329 - 9561 - 3385 = 85$$

f. Same as part d.

$$7008 - 9522 + 9987 - 832 = 6641$$

2. We have to find: $8220 - 2370 - 4599$

Step 1:

$$\begin{array}{r} 8\ 2\ 2\ 0 \\ - 2\ 3\ 7\ 0 \\ \hline 5\ 8\ 5\ 0 \end{array}$$

Step 2:

$$\begin{array}{r} 5\ 8\ 5\ 0 \\ - 4\ 5\ 9\ 9 \\ \hline 1\ 2\ 5\ 1 \end{array}$$

3.

Step 1:

$$\begin{array}{r} 4\ 9\ 8\ 0 \\ - 3\ 8\ 9\ 5 \\ \hline 1\ 0\ 8\ 5 \end{array}$$

Step 2:

$$\begin{array}{r} 6\ 9\ 1\ 0 \\ + 1\ 0\ 8\ 5 \\ \hline 5\ 8\ 2\ 5 \end{array}$$

4. We have to find: $5334 + 4653 - 6998$

Step 1:

$$\begin{array}{r} 5\ 3\ 3\ 4 \\ + 4\ 6\ 5\ 3 \\ \hline 9\ 9\ 8\ 7 \end{array}$$

Step 2:

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

5. Number of persons visited the zoo on Sunday =
 $7034 - 3548 - 1698$

Step 1:

$$\begin{array}{r} 7\ 0\ 3\ 4 \\ - 3\ 5\ 4\ 8 \\ \hline 3\ 4\ 8\ 6 \end{array}$$

Step 2:

$$\begin{array}{r} 3\ 4\ 8\ 6 \\ - 1\ 6\ 9\ 8 \\ \hline 1\ 7\ 8\ 8 \end{array}$$

Thus, 1788 persons visited the zoo on Sunday.

Learning Logs

1. a.

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

b.

	Th	H	T	O
			12	
		8	~~2~~	17
	4	~~9~~	~~3~~	~~7~~
-	2	8	8	9
	2	0	4	8

c.

	Th	H	T	O
		14	10	
	6	~~4~~	~~0~~	12
	~~7~~	~~5~~	~~1~~	~~2~~
-	3	8	7	5
	3	6	3	7

d.

	Th	H	T	O
		18	14	
	8	~~8~~	~~4~~	12
	~~9~~	~~9~~	~~5~~	~~2~~
-	5	9	9	6
	3	9	5	6

e.

	Th	H	T	O
			14	
		8	~~4~~	14
	4	~~9~~	~~5~~	~~4~~
-	2	6	7	9
	2	2	7	5

f.

	Th	H	T	O
		15	16	
	7	~~5~~	~~6~~	15
	~~8~~	~~6~~	~~7~~	~~5~~
-	4	9	8	6
	3	6	8	9

g.

	Th	H	T	O
		9		
	6	~~10~~	13	
	~~7~~	~~0~~	~~3~~	6
-	4	6	9	3
	2	3	4	3

h.

	Th	H	T	O
		9	9	
	4	~~10~~	~~10~~	10
	~~5~~	~~0~~	~~0~~	~~0~~
-	1	9	9	9
	3	0	0	1

2. a. $3295 - 0 = 3295$

b. $6782 - 6782 = 0$

c. $4226 - 0 = 4226$

d. $168 - 0 = 168$

e. $3578 - 3578 = 0$

f. $9561 - 1 = 9560$

3. a. $356 - 248$ _____ $526 - 417$

$$\begin{array}{r} 3\ 5\ 6 \\ - 2\ 4\ 8 \\ \hline 1\ 0\ 8 \end{array}$$

$$\begin{array}{r} 5\ 2\ 6 \\ - 4\ 1\ 7 \\ \hline 1\ 0\ 9 \end{array}$$

$$108 < 109$$

Therefore, $356 - 248 < 526 - 417$.

b. Same as above.

Therefore, $876 - 495 > 671 - 532$.

c. Same as above.

Therefore, $895 - 380 = 675 - 160$.

d. Same as above.

Therefore, $3854 - 1699 > 8932 - 7966$.

4. First, we add the numbers with + signs and – signs separately. Then, we find the difference of the two sums as follows:

a. Step 1:

$$\begin{array}{r} 6284 \\ + 1098 \\ \hline 7382 \text{ (+ sign)} \end{array}$$

Step 2:

$$\begin{array}{r} 6237 \\ + 956 \\ \hline 7193 \text{ (- sign)} \end{array}$$

Step 3:

$$\begin{array}{r} 7382 \\ - 7193 \\ \hline 189 \end{array}$$

So, $6284 - 6237 + 1098 - 956 = 189$.

b. Step 1:

$$\begin{array}{r} 8032 \\ + 3059 \\ \hline 11091 \text{ (+ sign)} \end{array}$$

Step 2:

$$\begin{array}{r} 9678 \\ + 1009 \\ \hline 10687 \text{ (- sign)} \end{array}$$

Step 3:

$$\begin{array}{r} 11091 \\ - 10687 \\ \hline 404 \end{array}$$

So, $8032 - 9678 + 3059 - 1009 = 404$.

5. Total number of bicycles = $\begin{array}{r} 6752 \\ - 2756 \\ \hline 3996 \end{array}$
Number of bicycles left in the shop = 3996

Thus, the shop has 3996 bicycles left.

6. Total number of postcards = $\begin{array}{r} 2750 \\ - 1692 \\ \hline 1058 \end{array}$
Number of postcards with Digvijay = 1692
Number of postcards with Priya = 1058

Thus, Priya has 1058 postcards.

Mental Maths

- a. 800 less than 876 = $876 - 800 = 76$
b. 76 more than 800 = $800 + 76 = 876$
c. 700 less than 876 = $876 - 700 = 176$
d. 800 more than 176 = $176 + 800 = 976$

So, the correct option is c.

2. $500 - 268 = 232$

The correct option is b.

3. 72, 65, 59, 54, ...

$$72 - 7 \rightarrow 65$$

$$65 - 6 \rightarrow 59$$

$$59 - 5 \rightarrow 54$$

The pattern is subtracting 7, 6, 5, 4...

$$\text{So, } 54 - 4 = 50$$

The correct option is d.

4. $1000 - 697 = 303$

The correct option is d.

5. $6002 - 4758 = 1244$

The correct option is b.

6. Ritu has more than 125 balls. Sonu has 5 more than Ritu.

So, Sonu must have more than 130 balls.

The correct option is d.

HOTS

1. a. $\begin{array}{r} 4326 \\ - 2215 \\ \hline 2111 \end{array}$ b. $\begin{array}{r} 6771 \\ - 2236 \\ \hline 4535 \end{array}$

c. $\begin{array}{r} 8362 \\ - 6929 \\ \hline 1433 \end{array}$

2. Number of marbles Ritu has = $3467 - 2684 + 1452 - 678$

First, we add the numbers with + signs and – signs separately. Then, we find the difference of the two sums as follows:

Step 1: $\begin{array}{r} 3467 \\ + 1452 \\ \hline 4919 \text{ (+ sign)} \end{array}$ Step 2: $\begin{array}{r} 2684 \\ + 678 \\ \hline 3362 \text{ (- sign)} \end{array}$

Step 3: $\begin{array}{r} 4919 \\ - 3362 \\ \hline 1557 \end{array}$

Thus, Ritu has 1557 marbles now.

CHAPTER 4: MULTIPLICATION

Warm Up

1. a. Section 3A

$$\begin{array}{r} 30 \\ \times 5 \\ \hline 150 \end{array}$$

- b. Section 3B

$$\begin{array}{r} 31 \\ \times 5 \\ \hline 155 \end{array}$$

- c. Section 3C

$$\begin{array}{r} 22 \\ \times 5 \\ \hline 110 \end{array}$$

- d. Section 3D

$$\begin{array}{r} 40 \\ \times 5 \\ \hline 200 \end{array}$$

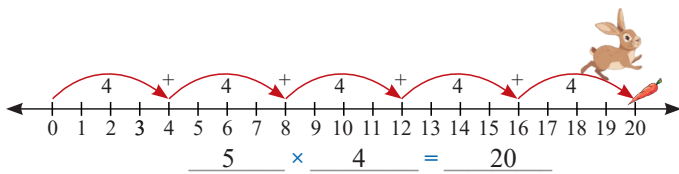


Total number of toffees required = $\underline{150} + \underline{155} + \underline{110} + \underline{200} = \underline{615}$

2. a. 24×5 is 24 times 5 b. 28×5 is 28 times 5
 c. 21×5 is 21 times 5 d. 36×5 is 36 times 5
3. a. $30 + 30 + 30 + 30 + 30 + 30 = \underline{6} \times \underline{30} = \underline{180}$
 b. $31 + 31 + 31 + 31 = \underline{4} \times \underline{31} = \underline{124}$
 c. $23 + 23 + 23 + 23 + 23 = \underline{5} \times \underline{23} = \underline{115}$
 d. $40 + 40 + 40 + 40 + 40 + 40 + 40 = \underline{7} \times \underline{40} = \underline{280}$

Exercise 4A

1. In 5 jumps of 4 Bunny reach the carrot.



2.	Multiplication fact	Multiplicand	Multiplier	Product
a.	$5 \times 9 = 45$	5	9	45
b.	$7 \times 4 = 28$	7	4	28
c.	$10 \times 6 = 60$	10	6	60
d.	$4 \times 9 = 36$	4	9	36
e.	$3 \times 9 = 27$	3	9	27

3.		Factors	Product
a.	$6 \times 10 = 60$	6, 10	60
b.	$2 \times 5 = 10$	2, 5	10
c.	$7 \times 5 = 35$	7, 5	35
d.	$3 \times 9 = 27$	3, 9	27
e.	$7 \times 6 = 42$	7, 6	42
f.	$7 \times 3 = 21$	7, 3	21
g.	$4 \times 6 = 24$	4, 6	24
h.	$9 \times 7 = 63$	9, 7	63
i.	$4 \times 5 = 20$	4, 5	20

Exercise 4B

1. a. $6 \times 6 = \underline{36}$ b. $7 \times 6 = \underline{42}$
 c. $5 \times 7 = \underline{35}$ d. $4 \times 7 = \underline{28}$
 e. $8 \times 9 = \underline{72}$ f. $5 \times 8 = \underline{40}$
 g. $3 \times 9 = \underline{27}$ h. $7 \times 8 = \underline{56}$

- i. $8 \times 6 = \underline{48}$ j. $2 \times 7 = \underline{14}$
 k. $4 \times 9 = \underline{36}$ l. $10 \times 5 = \underline{50}$
 m. $10 \times 10 = \underline{100}$ n. $9 \times 4 = \underline{36}$
 o. $4 \times 10 = \underline{40}$

2. a. $4 \times 7 = 28$
 $4 \times 9 = 36$
 Since 28 is less than 36.
 $4 \times 7 < 4 \times 9$

- b. Same as above.
 $10 \times 5 > 10 \times 3$
 c. Same as above.
 $3 \times 9 = 9 \times 3$
 d. Same as above.
 $2 \times 7 > 2 \times 5$
 e. Same as above.
 $8 \times 9 > 9 \times 3$
 f. Same as above.
 $4 \times 10 < 5 \times 10$

3. a. 3, 6, 9, ____, ____, ____
 The pattern increases by 3 each time.
 3, 6, 9, 12, 15, 18
 b. 4, 8, 12, ____, ____, ____
 The pattern increases by 4 each time.
 4, 8, 12, 16, 20, 24
 c. 15, 20, 25, ____, ____, ____
 The pattern increases by 5 each time.
 15, 20, 25, 30, 35, 40
 d. 6, 12, 18, ____, ____, ____
 The pattern increases by 6 each time.
 6, 12, 18, 24, 30, 36
 e. 35, 42, 49, ____, ____, ____
 The pattern increases by 7 each time.
 35, 42, 49, 56, 63, 70
 f. 8, 16, 24, ____, ____, ____
 The pattern increases by 8 each time.
 8, 16, 24, 32, 40, 48
 g. 18, 27, 36, ____, ____, ____
 The pattern increases by 9 each time.
 18, 27, 36, 45, 54, 63
 h. 40, 50, 60, ____, ____, ____
 The pattern increases by 10 each time.
 40, 50, 60, 70, 80, 90

Exercise 4C

1. a. **Step 1.** Multiply the ones.

	T	O
3	0	
×		2
		0

$0 \times 2 = 0$ one
So, $30 \times 2 = 60$.

- b. Same as above.

	T	O
2	2	
×		4
8	8	

- c. **Step 1.** Multiply the ones.

	H	T	O
1	2	3	
×			3
			9

$3 \times 3 = 9$ ones

Step 3. Multiply the hundreds.

	H	T	O
1	2	3	
×			3
3	6	9	

$1 \times 3 = 3$ hundreds
So, $123 \times 3 = 369$.

- d. Same as above.

	H	T	O
2	4	3	
×			2
4	8	6	

2. a. **Step 1.** Multiply the ones and regroup.

$6 \times 3 = 18$ ones = 1 ten 8 ones

	T	O
1		
2	6	
×		3
		8

- Step 2.** Multiply the tens

	T	O
3	0	
×		2
6	0	

$3 \times 2 = 6$ tens

Step 2. Multiply the tens and add the $2 \times 3 = 6$ ones and 6 tens + 1 ten = 7 tens
carried over tens.
So, $26 \times 3 = 78$

	T	O
1		
2	6	
×		3
7	8	

- b. **Step 1.** Multiply the ones and regroup

	H	T	O
		7	
	8	8	
×			9
			2

$8 \times 9 = 72$ ones = 7 tens 2 ones

Step 2. Multiply the tens, add the carried-over tens, and regroup

$8 \times 9 = 72$ tens

72 tens + 7 tens = 79 tens = 7 hundreds 9 tens

Now write the carried over hundreds into the hundreds column.

So, $88 \times 9 = 792$.

- c. **Step 1.** Multiply the ones and regroup.

$7 \times 3 = 21$ ones = 2 tens 1 ones

	Th	H	T	O
			2	
	9	6	7	
×				3
				1

Step 2. Multiply the tens, add the carried over tens and regroup.

$6 \times 3 = 18$ tens

18 tens + 2 tens = 20 tens = 2 hundreds 0 tens

	Th	H	T	O
		2	2	
	9	6	7	
×				3
		0	1	

Step 3. Multiply the hundreds and add the carried over hundreds and regroup.

$9 \times 3 = 27$ hundreds

27 hundreds + 2 hundreds = 29 hundreds = 2 thousands and 9 hundreds

	Th	H	T	O
2	2	2		
	9	6	7	
×				3
2	9	0	1	



Now write the carried over thousands into the thousands column.

So, $967 \times 3 = 2901$.

d. Same as above.

	Th	H	T	O
	2	3	1	
		6	9	4
$\times$				4
	2	7	7	6

3. a.

	T	O
	2	3
$\times$		3
	6	9

b.

	T	O
	3	
	1	6
$\times$		6
	9	6

c.

	H	T	O
	4	4	
		7	7
$\times$			6
	4	6	2

d.

	H	T	O
	6	2	
		8	3
$\times$			8
	6	6	4

e.

	H	T	O
		1	
	3	2	6
$\times$			3
	9	7	8

f.

	Th	H	T	O
		2	4	
		4	3	6
$\times$				7
	3	0	5	2

g.

	Th	H	T	O
	3	3	1	
		7	8	4
$\times$				4
	3	1	3	6

h.

	Th	H	T	O
	3	3	4	
		5	4	6
$\times$				7
	3	8	2	2

i.

	Th	H	T	O
	3	2	1	
		6	4	2
$\times$				5
	3	2	1	0

Exercise 4D

1. a. Here, the multiplier $23 = 2 \text{ ten} + 3 \text{ ones} = 20 + 3$. So, we multiply 23 by 23 stepwise as shown below.

Step 1. Multiply 23 by ones

	H	T	O
		2	3
$\times$		2	3
		6	9

$$23 \times 3 = 69$$

Step 3. Add the partial products.

	H	T	O
		2	3
$\times$		2	3
		6	9
+	4	6	0
	5	2	9

$$69 + 460 = 529$$

$$\text{So, } 23 \times 23 = 529.$$

b. Same as above.

	H	T	O
		4	1
$\times$		1	2
		8	2
+	4	1	0
	4	9	2

$$\text{So, } 41 \times 12 = 492.$$

- c. Here, the multiplier $18 = 1 \text{ ten} + 8 \text{ ones} = 10 + 8$. So, we multiply 56 by 18 stepwise as shown below.

Step 1. Multiply 56 by the ones.

	Th	H	T	O
			5	6
$\times$			1	8
		4	4	8

$$56 \times 8 = 448$$

Step 2. Multiply 23 by the tens.

	H	T	O
	1	2	3
$\times$		2	3
		6	9
	4	6	0

$$23 \times 20 = 460$$

Step 2. Multiply 56 by the tens.

	Th	H	T	O
			5	6
$\times$			1	8
		4	4	8
		5	6	0

$$56 \times 10 = 560$$

Step 3. Add the partial products.

	Th	H	T	O
×			5	6
			1	8
		4	4	8
+		5	6	0
	1	0	0	8

$$448 + 560 = 1008$$

$$\text{So, } 56 \times 18 = 1008.$$

d. Same as above.

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

$$\text{So, } 73 \times 64 = 4672.$$

e. Here, the multiplier $12 = 1 \text{ tens} + 2 \text{ ones} = 10 + 2$. So, we multiply 204 by 12 stepwise as shown below.

Step 1. Multiply 204 by the ones.

	Th	H	T	O
×		2	0	4
			1	2
		4	0	8

$$204 \times 2 = 408$$

Step 2. Multiply 204 by the tens.

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

$$204 \times 10 = 2040$$

Step 3. Add the partial products.

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

$$408 + 2040 = 2448$$

$$\text{So, } 204 \times 12 = 2448.$$

f. Same as above.

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

g. Here, multiplier $36 = 3 \text{ tens} + 6 \text{ ones} = 30 + 6$.

So, we multiply 143 by 36 stepwise as shown below.

Step 1. Multiply 143 by the ones.

	H	T	O
×	②	①	
	1	4	3
		3	6
	8	5	8

$$143 \times 6 = 858$$

Step 2. Multiply 143 by the tens.

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

$$143 \times 30 = 4290$$

Step 3. Add the partial products.

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

$$858 + 4290 = 5148$$

$$\text{So, } 143 \times 36 = 5148.$$

h. Same as above.

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



2. a.

	H	T	O
×		3	4
		2	1
		3	4
+	6	8	0
	7	1	4

c.

	H	T	O
×		1	2
		2	1
		1	2
+	2	4	0
	2	5	2

e.

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

g.

	H	T	O
×		3	3
		2	2
		6	6
+	6	6	0
	7	2	6

i.

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

k.

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

b.

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

d.

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

f.

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

h.

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

j.

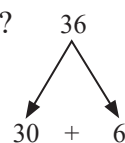
	Th	H	T	O
×		3	6	5
			2	3
	1	0	9	5
+	7	3	0	0
	8	3	9	5

l.

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

Exercise 4E

1. a. Step 1. $36 \times 4 = ?$



Step 2. $30 \times 4 = 120$

$6 \times 4 = 24$

144

So, $36 \times 4 = 144$.

b. Same as above.

So, $56 \times 9 = 504$.

c. Same as above.

So, $64 \times 8 = 512$.

d. Same as above.

So, $82 \times 6 = 492$.

e. Same as above.

So, $96 \times 9 = 864$.

f. Same as above.

So, $89 \times 5 = 445$.

2. a. $11 \times 1 = 11$

b. $28 \times 1 = 28$

c. $15 \times 6 = 6 \times 15$

d. $25 \times 39 = 39 \times 25$

e. $77 \times 48 = 48 \times 77$

f. $27 \times 0 = 0$

g. $0 \times 29 = 0$

h. $175 \times 0 = 0$

i. $345 \times 0 = 0$

3. (To multiply a number by 20, 30, 40, ..., 90, first multiply the numbers without zero.

Then add a zero (0) to the right of the product obtained.)

a. $5 \times 10 = 50$

b. $8 \times 10 = 80$

c. $10 \times 16 = 160$

d. $10 \times 50 = 500$

e. $20 \times 6 = 120$

f. $12 \times 30 = 360$

g. $124 \times 10 = 1240$

h. $80 \times 4 = 320$

i. $90 \times 35 = 3150$

4. (To multiply a number by 200, 300, 400, ..., 900, first multiply the numbers without the zeros. Then, write two zeros (00) to the right of the product obtained.)

a. $2 \times 100 = 200$

b. $200 \times 19 = 3800$

c. $31 \times 300 = 9300$

d. $17 \times 100 = 1700$

e. $600 \times 8 = 4800$

f. $20 \times 700 = 14000$

g. $500 \times 16 = 8000$

h. $9 \times 800 = 7200$

i. $900 \times 9 = 8100$

5. a. $5 \times 20 = 100$
 c. $6 \times 20 = 120$
 e. $11 \times 60 = 660$
 g. $6 \times 100 = 600$
 i. $700 \times 3 = 2100$

6. a.
$$\begin{array}{r} 56 \\ \times 1 \\ \hline 56 \end{array}$$

b.
$$\begin{array}{r} 423 \\ \times 1 \\ \hline 423 \end{array}$$

c.
$$\begin{array}{r} 78 \\ \times 0 \\ \hline 0 \end{array}$$

d.
$$\begin{array}{r} 249 \\ \times 0 \\ \hline 0 \end{array}$$

7. a. Number of notes = 83
 Value of each note = ₹10
 Thus, Ramesh has $83 \times 10 = ₹830$.
- b. Number of apples in one box = 256
 Number of boxes = 20
 Thus, there are $256 \times 20 = 5120$ apples in 20 boxes.
- c. Number of pens in one packet = 10
 Number of packets = 148
 Thus, there are $148 \times 10 = 1480$ pens in the carton, which contains 148 packets.

Exercise 4F

1. a. 28 comes between 20 and 30.
 $20 \times 4 = 80$ and $30 \times 4 = 120$
 So, the product of 28 and 4 comes between 80 and 120.
 Let us check: $28 \times 4 = 112$
 Clearly, 112 lies between 80 and 120.
- b. 55 comes between 50 and 60.
 $50 \times 7 = 350$ and $60 \times 7 = 420$
 So, the product of 55 and 7 comes between 350 and 420.
 Let us check: $55 \times 7 = 385$
 Clearly, 385 lies between 350 and 420.
- c. 64 comes between 60 and 70.
 $60 \times 3 = 180$ and $70 \times 3 = 210$
 So, the product of 64 and 3 comes between 180 and 210.
 Let us check: $64 \times 3 = 192$
 Clearly, 192 lies between 180 and 210.

- d. 87 comes between 80 and 90.
 $80 \times 5 = 400$ and $90 \times 5 = 450$
 So, the product of 87 and 5 comes between 400 and 450.

$$\begin{array}{r} 87 \\ \times 5 \\ \hline 435 \end{array}$$

Let us check: $87 \times 5 = 435$

Clearly, 435 lies between 400 and 450.

- e. 46 comes between 40 and 50.
 $40 \times 9 = 360$ and $50 \times 9 = 450$
 So, the product of 46 and 9 comes between 360 and 450.

$$\begin{array}{r} 46 \\ \times 9 \\ \hline 414 \end{array}$$

Let us check: $46 \times 9 = 414$

Clearly, 414 lies between 360 and 450.

- f. 41 comes between 40 and 50.
 $40 \times 8 = 320$ and $50 \times 8 = 400$
 So, the product of 41 and 8 comes between 320 and 400.

$$\begin{array}{r} 41 \\ \times 8 \\ \hline 328 \end{array}$$

Let us check: $41 \times 8 = 328$

Clearly, 328 lies between 320 and 400.

- g. 44 comes between 40 and 50.
 $40 \times 6 = 240$ and $50 \times 6 = 300$
 So, the product of 44 and 6 comes between 240 and 300.

$$\begin{array}{r} 44 \\ \times 6 \\ \hline 264 \end{array}$$

Let us check: $44 \times 6 = 264$

Clearly, 264 lies between 240 and 300.

- h. 37 comes between 30 and 40.
 $30 \times 2 = 60$ and $40 \times 2 = 80$
 So, the product of 37 and 2 comes between 60 and 80.

$$\begin{array}{r} 37 \\ \times 2 \\ \hline 74 \end{array}$$

Let us check: $37 \times 2 = 74$

Clearly, 74 lies between 60 and 80.

2. a. 55 rounded off to 60
 24 rounded off to 20
 Now: $60 \times 20 = 1200$
 So, the estimated product = 1200.

$$\begin{array}{r} 60 \\ \times 20 \\ \hline 1200 \end{array}$$

The actual product of $55 \times 24 = 1320$.

- b. 28 rounded off to 30
 13 rounded off to 10
 Now: $30 \times 10 = 300$
 So, the estimated product = 300.
 The actual product of $28 \times 13 = 364$

$$\begin{array}{r} 30 \\ \times 10 \\ \hline 300 \end{array}$$



c. 63 rounded off to 60

34 rounded off to 30

Now: $60 \times 30 = 1800$

So, the estimated product
= 1800.

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 6 & 0 & & \\ \hline 3 & 4 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 8 & 0 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

The actual product of $63 \times 34 = 2142$

d. 44 rounded off to 40

33 rounded off to 30

Now: $40 \times 30 = 1200$

So, the estimated product
= 1200.

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 4 & 0 & & \\ \hline 3 & 3 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 2 & 0 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

The actual product of $44 \times 33 = 1452$

e. 58 rounded off to 60

22 rounded off to 20

Now: $60 \times 20 = 1200$

So, the estimated product
= 1200.

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 6 & 0 & & \\ \hline 2 & 2 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 2 & 0 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

The actual product of $58 \times 22 = 1276$

f. 42 rounded off to 40

24 rounded off to 20

Now: $40 \times 20 = 800$

So, the estimated product = 800.

The actual product of $42 \times 24 = 1008$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 4 & 0 & & \\ \hline 2 & 4 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 8 & 0 & 0 & \\ \hline \end{array} \\ \hline \end{array}$$

g. 73 rounded off to 70

19 rounded off to 20

Now: $70 \times 20 = 1400$

So, the estimated product
= 1400.

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 7 & 0 & & \\ \hline 1 & 9 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 4 & 0 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

The actual product of $73 \times 19 = 1387$

h. 45 rounded off to 50

19 rounded off to 20

Now: $50 \times 20 = 1000$

So, the estimated product
= 1000.

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 5 & 0 & & \\ \hline 4 & 5 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 0 & 0 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

The actual product of $45 \times 19 = 855$

Exercise 4G

1. Number of slabs in one box = 24

Number of boxes = 134

So, the number of slabs in 134
boxes = $24 \times 134 = 3216$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 1 & 3 & 4 & \\ \hline 2 & 4 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 3 & 2 & 1 & 6 \\ \hline \end{array} \\ \hline \end{array}$$

2. Cost of one chair = ₹350

Number of chairs = 17

So, the cost of 17 chairs
= $350 \times 17 = ₹5950$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 3 & 5 & 0 & \\ \hline 1 & 7 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 5 & 9 & 5 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

3. Number of beads in one
garland = 135

Number of garlands = 36

So, the number of beads in 36
garlands = $135 \times 36 = 4860$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 1 & 3 & 5 & \\ \hline 3 & 6 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 4 & 8 & 6 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

4. Cost of one bedsheet = ₹596

Number of bedsheets = 8

So, the cost of 8 bedsheets
= $596 \times 8 = ₹4768$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 5 & 9 & 6 & \\ \hline 8 & & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 4 & 7 & 6 & 8 \\ \hline \end{array} \\ \hline \end{array}$$

5. Number of pencils in
one packet = 184

Number of packets = 24

So, the number of pencils in 24
packets = $184 \times 24 = 4416$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 1 & 8 & 4 & \\ \hline 2 & 4 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 4 & 4 & 1 & 6 \\ \hline \end{array} \\ \hline \end{array}$$

6. Number of bags a truck can
carry = 79

Number of trucks = 97

So, the number of bags 97 trucks
can carry
= $79 \times 97 = 7663$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 9 & 7 & & \\ \hline 7 & 9 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 7 & 6 & 6 & 3 \\ \hline \end{array} \\ \hline \end{array}$$

7. Toll tax for one bus = ₹230

Number of buses = 39

So, the total amount collected =
 $230 \times 39 = ₹8970$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 2 & 3 & 0 & \\ \hline 3 & 9 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 8 & 9 & 7 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

8. Number of students in the class
= 46

Amount deposited by each student
= ₹25

So, the total amount collected
= $46 \times 25 = ₹1150$

$$\begin{array}{r} \times \quad \begin{array}{|c|c|c|c|} \hline 4 & 6 & & \\ \hline 2 & 5 & & \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 1 & 5 & 0 \\ \hline \end{array} \\ \hline \end{array}$$

9. Number of matchsticks in

one matchbox = 50

Number of matchboxes = 73

So, the number of matchsticks in
73 matchboxes = $73 \times 50 = 3650$

$$\begin{array}{r} \times 73 \\ 50 \\ \hline + 3650 \\ \hline 3650 \end{array}$$

10. Cost of bananas per dozen = ₹30

Number of dozens bought = 16

So, the total money paid

= $30 \times 16 = ₹480$

$$\begin{array}{r} \times 16 \\ 30 \\ \hline + 480 \\ \hline 480 \end{array}$$

Learning Logs

1. Do it Yourself.

2. a.

$$\begin{array}{r} \text{H T O} \\ \times 72 \\ 6 \\ \hline 432 \end{array}$$

b.

$$\begin{array}{r} \text{H T O} \\ \times 34 \\ 4 \\ \hline 238 \end{array}$$

c.

$$\begin{array}{r} \text{Th H T O} \\ \times 65 \\ 18 \\ \hline 520 \\ + 650 \\ \hline 1170 \end{array}$$

d.

$$\begin{array}{r} \text{Th H T O} \\ \times 49 \\ 27 \\ \hline 343 \\ + 980 \\ \hline 1323 \end{array}$$

e.

$$\begin{array}{r} \text{Th H T O} \\ \times 439 \\ 4 \\ \hline 1756 \end{array}$$

f.

$$\begin{array}{r} \text{Th H T O} \\ \times 738 \\ 4 \\ \hline 2952 \end{array}$$

g.

$$\begin{array}{r} \text{Th H T O} \\ \times 393 \\ 6 \\ \hline 2358 \end{array}$$

h.

$$\begin{array}{r} \text{Th H T O} \\ \times 163 \\ 2 \\ \hline 326 \\ + 1630 \\ \hline 1956 \end{array}$$

3. a. $9 \times 7 = 7 \times 9$

c. $7 \times 8 = 8 \times 7$

e. $8 \times 1 = 8$

b. $4 \times 5 = 5 \times 4$

d. $5 \times 1 = 5$

f. $8 \times 0 = 0$

4. a. Number of passengers in one

aeroplane = 85

Number of aeroplanes = 17

So, the number of people who
went to Kerala by air

= $85 \times 17 = 1445$

$$\begin{array}{r} \times 85 \\ 17 \\ \hline + 595 \\ \hline 1445 \end{array}$$

b. Cost of one water bottle = ₹75

Number of water bottles = 10

So, the total cost of 10 water
bottles = $75 \times 10 = ₹750$

$$\begin{array}{r} \times 75 \\ 10 \\ \hline + 00 \\ \hline 750 \end{array}$$

c. Number of boxes = 82

Number of toys in one box = 12

So, the total number of toys

= $82 \times 12 = 984$

$$\begin{array}{r} \times 82 \\ 12 \\ \hline + 164 \\ \hline 984 \end{array}$$

d. Number of rows = 28

Number of chairs in one row = 9

So, the total number of chairs

= $28 \times 9 = 252$

$$\begin{array}{r} \text{H T O} \\ \times 28 \\ 9 \\ \hline 252 \end{array}$$

Mental Maths

1. d. a. $9 \times 8 = 72$ (not 55) b. $7 \times 8 = 56$ (not 64)

c. $6 \times 7 = 42$ (not 48)

d. $8 \times 9 = 72$ (which is correct)

2. c. a. $8 \times 8 = 64$ (not possible)

b. $9 \times 9 = 81$ (not possible)

c. $8 \times 9 = 72$ ✓

d. $7 \times 10 = 70$ (not possible)

3. c. $10 \times 7 = 70$

Correct answer is c.

4. b. a. $9 \times 6 = 54$

b. $8 \times 5 = 40$

c. $7 \times 7 = 49$

d. $10 \times 5 = 50$

Smallest product = 40

5. b. a. $9 \times 8 = 72$ (not 74)

b. $6 \times 7 = 42$ (which is correct)

c. $10 \times 9 = 90$ (not 80) d. $5 \times 9 = 45$ (not 50)

HOTS

×	3	9	6
9	27	81	54
8	24	72	48
7	21	63	42

×	5	6	3
9	45	54	27
4	20	24	12
2	10	12	6



CHAPTER 5 : DIVISION

Warm Up

This can be written as:

$\underline{28}$ divided by $\underline{7}$ gives $\underline{4}$.

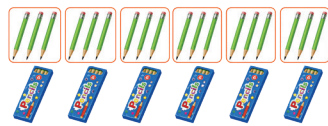
$$\underline{28} \div \underline{7} = \underline{4}$$

Exercise 5A

1. a. 16 ice creams shared equally by 4 is 4.
 $16 \div 4 = \underline{4}$
 Each child gets 4 ice cream cones.



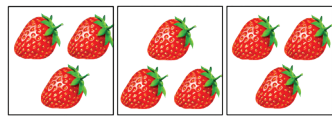
- b. 18 pencils shared equally by 6 is 3.
 $18 \div 6 = \underline{3}$
 Each pencil box has 3 pencils.



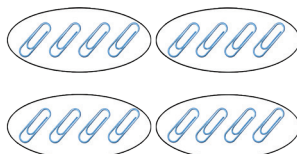
- c. 15 eggs shared equally by 3 is 5.
 $15 \div 3 = \underline{5}$
 Each basket has 5 eggs.



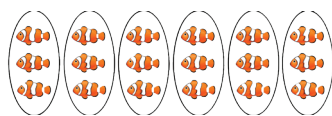
2. a. 9 in equal groups of 3 = 3 groups
 $9 \div 3 = \underline{3}$
3 groups are formed.



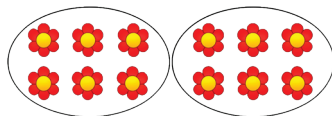
- b. 16 in equal groups of 4 = 4 groups
 $16 \div 4 = \underline{4}$
4 groups are formed.



- c. 18 in equal groups of 3 = 6 groups
 $18 \div 3 = \underline{6}$
6 groups are formed.



- d. 12 in equal groups of 6 = 2 groups
 $12 \div 6 = \underline{2}$
2 groups are formed.



3. a. There are 5 groups, each containing 2 balls, making a total of 10 balls.
 So, $10 \div 5 = 2$.
- b. There are 2 groups, each containing 7 triangles, making a total of 14 triangles.
 So, $14 \div 2 = 7$.

- c. There are 4 groups, each containing 6 stars, making a total of 24 stars.

$$\text{So, } 24 \div 4 = 6.$$

4. a. To find out how many candies are there in each bowl, we divide total number of candies to the number of bowls: $15 \div 3 = 5$

So, there are 5 candies in each bowl.

- b. To find out how many oranges are there in each basket, we divide total number of oranges to the number of baskets: $20 \div 5 = 4$

So, there are 4 oranges in each basket.

- c. To find out how many coloured pencils are there in each cup, we divide total number of coloured pencils to the number of cups: $36 \div 6 = 6$

So, there are 6 coloured pencils in each cup.

Exercise 5B

1. b. $32 \div 8 = \underline{\quad}$

$$\begin{array}{r} 32 \\ - 8 \leftarrow \textcircled{1} \\ \hline 24 \\ - 8 \leftarrow \textcircled{2} \\ \hline 16 \\ - 8 \leftarrow \textcircled{3} \\ \hline 8 \\ - 8 \leftarrow \textcircled{4} \\ \hline 0 \end{array}$$

- c. $420 \div 105 = \underline{\quad}$

$$\begin{array}{r} 420 \\ - 105 \leftarrow \textcircled{1} \\ \hline 315 \\ - 105 \leftarrow \textcircled{2} \\ \hline 210 \\ - 105 \leftarrow \textcircled{3} \\ \hline 105 \\ - 105 \leftarrow \textcircled{4} \\ \hline 0 \end{array}$$

2. a. $48 \div 6;$

We repeatedly subtract 6 from 48 until we reach 0.

$$48 - 6 = 42,$$

$$42 - 6 = 36,$$

$$36 - 6 = 30,$$

$$30 - 6 = 24,$$

$$24 - 6 = 18,$$

$$18 - 6 = 12,$$

$$12 - 6 = 6,$$

$$6 - 6 = 0$$

Here, we subtract 6, eight times from 48 to reach 0. So, $48 \div 6 = 8$.

b. $65 \div 13$;

We repeatedly subtract 13 from 65 until we reach 0.

$$\begin{array}{ll} 65 - 13 = 52, & 52 - 13 = 39, \\ 39 - 13 = 26, & 26 - 13 = 13, \\ 13 - 13 = 0 \end{array}$$

Here, we subtract 13, five times from 65 to reach 0. So, $65 \div 13 = 5$.

c. $60 \div 15$;

We repeatedly subtract 15 from 60 until we reach 0.

$$\begin{array}{ll} 60 - 15 = 45, & 45 - 15 = 30, \\ 30 - 15 = 15, & 15 - 15 = 0 \end{array}$$

Here, we subtract 15, four times from 60 to reach 0. So, $60 \div 15 = 4$.

d. $60 \div 12$;

We repeatedly subtract 12 from 60 until we reach 0.

$$\begin{array}{ll} 60 - 12 = 48, & 48 - 12 = 36, \\ 36 - 12 = 24, & 24 - 12 = 12, \\ 12 - 12 = 0 \end{array}$$

Here, we subtract 12, five times from 60 to reach 0. So, $60 \div 12 = 5$.

e. $42 \div 7$;

We repeatedly subtract 7 from 42 until we reach 0.

$$\begin{array}{ll} 42 - 7 = 35, & 35 - 7 = 28, \\ 28 - 7 = 21, & 21 - 7 = 14, \\ 14 - 7 = 7, & 7 - 7 = 0 \end{array}$$

Here, we subtract 7, six times from 42 to reach 0. So, $42 \div 7 = 6$.

f. $99 \div 11$;

We repeatedly subtract 11 from 99 until we reach 0.

$$\begin{array}{ll} 99 - 11 = 88, & 88 - 11 = 77, \\ 77 - 11 = 66, & 66 - 11 = 55, \\ 55 - 11 = 44, & 44 - 11 = 33, \\ 33 - 11 = 22, & 22 - 11 = 11, \\ 11 - 11 = 0 \end{array}$$

Here, we subtract 11, nine times from 99 to reach 0. So, $99 \div 11 = 9$.

g. $318 \div 106$;

We repeatedly subtract 106 from 318 until we reach 0.

$$318 - 106 = 212, \quad 212 - 106 = 106,$$

$$106 - 106 = 0$$

Here, we subtract 106, three times from 318 to reach 0. So, $318 \div 106 = 3$.

h. $500 \div 100$;

We repeatedly subtract 100 from 500 until we reach 0.

$$\begin{array}{ll} 500 - 100 = 400, & 400 - 100 = 300, \\ 300 - 100 = 200, & 200 - 100 = 100, \\ 100 - 100 = 0 \end{array}$$

Here, we subtract 100, five times from 500 to reach 0. So, $500 \div 100 = 5$.

3. a. We subtract 2 from 18 until we reach 0:

$$\begin{array}{ll} 18 - 2 = 16, & 16 - 2 = 14, \\ 14 - 2 = 12, & 12 - 2 = 10, \\ 10 - 2 = 8, & 8 - 2 = 6, \\ 6 - 2 = 4, & 4 - 2 = 2, \\ 2 - 2 = 0 \end{array}$$

So, there are nine 2s in 18.

b. We subtract 3 from 27 until we reach 0:

$$\begin{array}{ll} 27 - 3 = 24, & 24 - 3 = 21, \\ 21 - 3 = 18, & 18 - 3 = 15, \\ 15 - 3 = 12, & 12 - 3 = 9, \\ 9 - 3 = 6, & 6 - 3 = 3, \\ 3 - 3 = 0 \end{array}$$

So, there are nine 3s in 27.

c. We subtract 4 from 28 until we reach 0:

$$\begin{array}{ll} 28 - 4 = 24, & 24 - 4 = 20, \\ 20 - 4 = 16, & 16 - 4 = 12, \\ 12 - 4 = 8, & 8 - 4 = 4, \\ 4 - 4 = 0 \end{array}$$

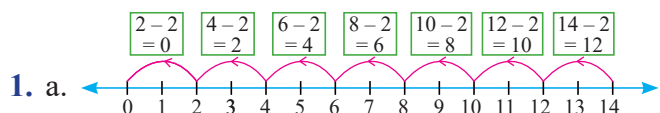
So, there are seven 4s in 28.

d. We subtract 8 from 40 until we reach 0:

$$\begin{array}{ll} 40 - 8 = 32, & 32 - 8 = 24, \\ 24 - 8 = 16, & 16 - 8 = 8, \\ 8 - 8 = 0 \end{array}$$

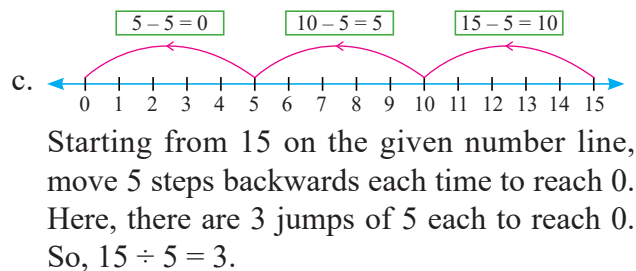
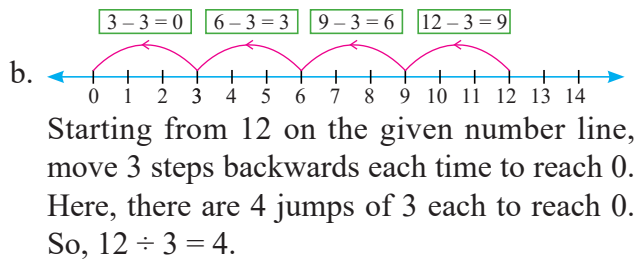
So, there are five 8s in 40.

Exercise 5C



Starting from 14 on the given number line, move 2 steps backwards each time to reach 0. Here, there are 7 jumps of 2 each to reach 0. So, $14 \div 2 = 7$.





2. a. On the number line, start from 16 and move 2 steps backwards each time to reach 0, as shown below. We have made 8 jumps of 2 each. So $16 \div 2 = 8$.



- b. Same as above: $24 \div 12 = 2$
 c. Same as above: $36 \div 6 = 6$
 d. Same as above: $15 \div 3 = 5$
3. a. $4 \times 8 = 32$
 $32 \div 4 = 8$, $32 \div 8 = 4$
 b. $9 \times 6 = 54$
 $54 \div 6 = 9$, $54 \div 9 = 6$
 c. $7 \times 8 = 56$
 $56 \div 7 = 8$, $56 \div 8 = 7$
4. a. $40 \div 5 = 8$
 $5 \times 8 = 40$
 b. $44 \div 11 = 4$
 $4 \times 11 = 44$
 c. $48 \div 8 = 6$
 $6 \times 8 = 48$

Exercise 5D

- 2.
- | | Dividend | Divisor | Quotient |
|----|----------|---------|----------|
| a. | 30 | 3 | 10 |
| b. | 48 | 8 | 6 |
| c. | 68 | 4 | 17 |
| d. | 55 | 5 | 11 |
| e. | 72 | 6 | 12 |
2. a. Given: Dividend = 32, divisor = 4 and quotient = 8
 So, the division fact = $30 \div 4 = 8$.

- b. $63 \div 7 = 9$
 c. $39 \div 3 = 13$
 d. $56 \div 4 = 14$
 e. $60 \div 15 = 4$

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

b.
$$\begin{array}{r} 7 \\ 5 \overline{)35} \\ \underline{-35} \\ 0 \end{array}$$

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

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

e.
$$\begin{array}{r} 8 \\ 2 \overline{)16} \\ \underline{-16} \\ 0 \end{array}$$

f.
$$\begin{array}{r} 6 \\ 4 \overline{)24} \\ \underline{-24} \\ 0 \end{array}$$

g.
$$\begin{array}{r} 8 \\ 7 \overline{)56} \\ \underline{-56} \\ 0 \end{array}$$

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

4. Divide the total number of balloons (10) by the number of balloons in each group (3).

$$\begin{array}{r} 3 \leftarrow \text{Quotient} \\ 3 \overline{)10} \\ \underline{-9} \\ 1 \leftarrow \text{Remainder} \end{array}$$



There are three groups, with three balloons in each group and 1 balloon left over.

5. a.
$$\begin{array}{r} 9 \leftarrow \text{Quotient} \\ 5 \overline{)46} \\ \underline{-45} \\ 1 \leftarrow \text{Remainder} \end{array}$$

Quotient = 9 and remainder = 1

- b. Same as above; Quotient = 7 and remainder = 1
 c. Same as above; Quotient = 8 and remainder = 3
 d. Same as above; Quotient = 8 and remainder = 1
 e. Same as above; Quotient = 4 and remainder = 6
 f. Same as above; Quotient = 5 and remainder = 5

Exercise 5E

1. $70 \div 7$;

	T	O	
	1	0	← Quotient
7	)	7	0
		-7	↓
		0	0
		-	0
			0 ← Remainder

Thus, $Q = 10$, and $R = 0$

Checking:

(Quotient $\times$ Divisor) + Remainder = Dividend

$$7 \times 10 + 0 = 70$$

$$70 + 0 = 70$$

$$70 = 70$$

Thus, the division is correct.

- Same as question 1; $Q = 22$ and $R = 0$.
- Same as question 1; $Q = 32$ and $R = 1$.
- Same as question 1; $Q = 11$ and $R = 1$.
- Same as question 1; $Q = 21$ and $R = 1$.
- Same as question 1; $Q = 11$ and $R = 1$.
- Same as question 1; $Q = 11$ and $R = 0$.
- Same as question 1; $Q = 11$ and $R = 0$.
- Same as question 1; $Q = 11$ and $R = 0$.
- $848 \div 4$;

	H	T	O	
	2	1	2	← Quotient
4	)	8	4	8
		-8	↓	
		0	4	
		-4	↓	
		0	8	
			8	
			0 ← Remainder	

Checking:

Quotient $\times$ Divisor + Remainder = Dividend

$$4 \times 212 + 0 = 848$$

$$848 + 0 = 848$$

$$848 = 848$$

Thus, the division is correct.

- Same as question 9; $Q = 132$ and $R = 0$
- Same as question 9; $Q = 111$ and $R = 0$
- Same as question 9; $Q = 204$ and $R = 0$
- Same as question 9; $Q = 321$ and $R = 1$
- Same as question 9; $Q = 211$ and $R = 1$

- Same as question 9; $Q = 111$ and $R = 1$
- Same as question 9; $Q = 111$ and $R = 1$
- Same as question 9; $Q = 202$ and $R = 1$
- Same as question 9; $Q = 101$ and $R = 1$
- Same as question 9; $Q = 204$ and $R = 1$
- Same as question 9; $Q = 101$ and $R = 3$

Exercise 5F

1. $63 \div 4$;

	T	O	
	1	5	← Quotient
4	)	6	3
		-4	↓
		2	3
		-2	↓
			3 ← Remainder

Checking:

Quotient $\times$ Divisor + Remainder = Dividend

$$4 \times 15 + 3 = 63$$

$$60 + 3 = 63$$

$$63 = 63$$

Thus, the division is correct.

- Same as above; $Q = 17$ and $R = 4$.
- Same as above; $Q = 8$ and $R = 3$.
- Same as above; $Q = 16$ and $R = 1$.
- Same as above; $Q = 16$ and $R = 1$.
- Same as above; $Q = 11$ and $R = 4$.
- $853 \div 8$;

	H	T	O	
	1	0	6	← Quotient
8	)	8	5	3
		-8	↓	
		0	5	
		-0	↓	
			5	3
			-4	↓
				8
				5 ← Remainder

Checking:

Quotient $\times$ Divisor + Remainder = Dividend

$$8 \times 106 + 5 = 853$$

$$848 + 5 = 853$$

$$853 = 853$$

Thus, the division is correct.

- Same as question 7; $Q = 90$ and $R = 4$.



9. Same as question 7; $Q = 158$ and $R = 5$.
10. Same as question 7; $Q = 121$ and $R = 4$.
11. Same as question 7; $Q = 78$ and $R = 0$.
12. Same as question 7; $Q = 127$ and $R = 2$.
13. Same as question 7; $Q = 64$ and $R = 3$.
14. Same as question 7; $Q = 210$ and $R = 1$.
15. Same as question 7; $Q = 100$ and $R = 3$.
16. Same as question 7; $Q = 108$ and $R = 6$.
17. Same as question 7; $Q = 66$ and $R = 4$.
18. Same as question 7; $Q = 60$ and $R = 3$.
19. Same as question 7; $Q = 131$ and $R = 3$.
20. Same as question 7; $Q = 72$ and $R = 7$.

Exercise 5G

2. $55 \div 10$;

Here dividend is 55, since unit digit is 5, remainder is 5 and number formed by remaining digit is 5, quotient is 5.

3. $78 \div 10$; Same as above. Dividend = 78, quotient = 7 and remainder = 8.

4. $103 \div 10$;

Here, dividend = 103, since unit digit is 3, remainder is 3 and number formed by remaining digit is 10, quotient is 10.

5. $200 \div 10$; Dividend = 200, quotient = 20 and remainder = 0.
6. $649 \div 10$; Dividend = 649, quotient = 64 and remainder = 9.

Exercise 5H

1. Total number of legs = 84

The number of legs of a cow = 4

Number of cows

$$= 84 \div 4 = 21$$

Thus, the number of cows was 21.

$$\begin{array}{r} 21 \leftarrow (Q) \\ 4 \overline{) 84} \\ \underline{-8} \\ 04 \\ \underline{-4} \\ 0 \leftarrow (R) \end{array}$$

2. Total number of chairs = 832

Number of rows = 8

Number of chairs in each row = $832 \div 8 = 104$

Thus, the number of chairs in each row was 104.

$$\begin{array}{r} 104 \leftarrow (Q) \\ 8 \overline{) 832} \\ \underline{-8} \\ 03 \\ \underline{-0} \\ 32 \\ \underline{-32} \\ 0 \leftarrow (R) \end{array}$$

3. Total money collected = ₹735

Number of children = 5

Amount each child

$$\text{contributed} = ₹735 \div 5 = ₹147$$

Thus, each child contributed ₹147.

$$\begin{array}{r} 147 \leftarrow (Q) \\ 5 \overline{) 735} \\ \underline{-5} \\ 23 \\ \underline{-20} \\ 35 \\ \underline{-35} \\ 0 \leftarrow (R) \end{array}$$

4. Total pens = 368

Number of boxes = 7

Pens in each box

$$= 368 \div 7 = 52 \text{ (quotient)}$$

Pens remaining

$$= 368 - (52 \times 7)$$

$$= 368 - 364 = 4$$

Therefore, each box will have 52 pens, and 4 pens will remain unpacked.

$$\begin{array}{r} 52 \leftarrow (Q) \\ 7 \overline{) 368} \\ \underline{-35} \\ 18 \\ \underline{-14} \\ 4 \leftarrow (R) \end{array}$$

5. Total distance travelled = 636 km

Number of days = 6

Distance covered in one day = $636 \div 6 = 106$ km

Thus, the car covered 106 km in one day.

$$\begin{array}{r} 106 \leftarrow (Q) \\ 6 \overline{) 636} \\ \underline{-6} \\ 03 \\ \underline{-0} \\ 36 \\ \underline{-36} \\ 0 \leftarrow (R) \end{array}$$

6. Total cost of 3 shirts

$$= ₹825$$

Price of one shirt

$$= ₹825 \div 3 = ₹275$$

Thus, the price of one shirt is ₹275.

$$\begin{array}{r} 275 \leftarrow (Q) \\ 3 \overline{) 825} \\ \underline{-6} \\ 22 \\ \underline{-21} \\ 15 \\ \underline{-15} \\ 0 \leftarrow (R) \end{array}$$

7. Total sweets to be divided = 146

Number of boys = 8

Sweets for each boy

$$= 146 \div 8 = 18 \text{ (quotient)}$$

Sweets remaining

$$= 146 - (18 \times 8)$$

$$= 146 - 144$$

$$= 2$$

Therefore, each boy gets 18 sweets, and 2 sweets remain undistributed.

$$\begin{array}{r} 18 \leftarrow (Q) \\ 8 \overline{) 146} \\ \underline{-8} \\ 66 \\ \underline{-64} \\ 2 \leftarrow (R) \end{array}$$

8. Total number of balls = 412

Number of balls in each packet = 10

Number of packets
= $412 \div 10 = 41$ (quotient)

Balls left = $412 - (41 \times 10) = 412 - 410 = 2$

Therefore, 41 packets will be made, and 2 balls will remain.

$$\begin{array}{r} 41 \leftarrow (Q) \\ 10 \overline{) 412} \\ \underline{-40} \\ 12 \\ \underline{-10} \\ 2 \leftarrow (R) \end{array}$$

9. Total toffees = 425

Number of children = 5

Toffees per child

= $425 \div 5 = 85$

Thus, each child gets 85 toffees.

$$\begin{array}{r} 85 \leftarrow (Q) \\ 5 \overline{) 425} \\ \underline{-40} \\ 25 \\ \underline{-25} \\ 0 \leftarrow (R) \end{array}$$

10. Guests per table = 8

Total guests = 656

Number of tables required
= $656 \div 8 = 82$

Thus, 82 tables will be required for 656 guests.

$$\begin{array}{r} 82 \leftarrow (Q) \\ 8 \overline{) 656} \\ \underline{-64} \\ 16 \\ \underline{-16} \\ 0 \leftarrow (R) \end{array}$$

Exercise 51

- 1.

$5 + 9 = 14$ pencils in two boxes.

- 2.

$2 \times 5 = 10$ mangoes in 5 such baskets.

- 3.

$10 - 3 = 7$ oranges left.

- 4.

$6 \div 2 = 3$ toffees each friend will get.

- 5.

$9 - 2 = 7$ students attended the dance class.

- 6.

$8 \times ₹5 = ₹40$

- 7.

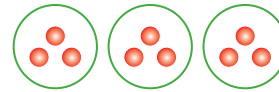
$16 + 13 = 29$ carrots buy in all.

- 8.

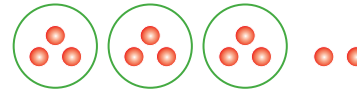
$20 \div 10 = 2$ towers can be made.

Learning Logs

1. $9 \div 3$

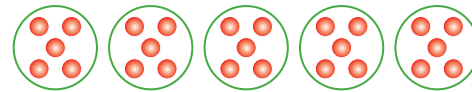


2. $11 \div 3$



$11 \div 3$ will have a remainder of 2.

3. $20 \div 5$



2. a. Divisor = 2, since $16 \div 2 = 8$

b. Divisor = 5, since $45 \div 9 = 5$

c. Divisor = 4, since $24 \div 6 = 4$

d. Divisor = 7, since $84 \div 12 = 7$

3. a. Here, divisor = 5 and quotient = 9 and remainder = 0

We know that,

Dividend = Divisor $\times$ Quotient + Remainder

Dividend = $5 \times 9 + 0 = 45$.

b. Same as above; Dividend = 30 ($5 \times 6 = 30$)

c. Same as above; Dividend = 126 ($14 \times 9 = 126$)

d. Same as above; Dividend = 78 ($13 \times 6 = 78$)

4. a. $28 \div 4 = 7$

b. $65 \div 5 = 13$

c. $56 \div 7 = 8$

d. $87 \div 3 = 29$

e. $36 \div 4 = 9$

f. $100 \div 10 = 10$

g. $81 \div 3 = 27$

h. $96 \div 8 = 12$

5. a. There are 7 days in a week.

The number of weeks in 84 days = $84 \div 7 = 12$

Thus, the number of weeks in 84 days is 12.

b. The cost of 5 notebooks = ₹100

Cost of 1 notebook = $₹100 \div 5 = ₹20$.

Thus, the cost of 1 notebook is ₹20.

c. Total number of trees to be planted = 108

Number of students = 9

Number of trees planted by each student = $108 \div 9 = 12$.

d. Total cost for 6 tickets = ₹540

Number of people = 6

Cost of one ticket = $₹540 \div 6 = ₹90$.



- e. Total number of notebooks = 865
Total number of notebook given to each child = 8
So, the number children = $865 \div 8$

$$\begin{array}{r} 108 \text{ (Q)} \\ 8 \overline{) 865} \\ \underline{-8} \\ 06 \\ \underline{-0} \\ 65 \\ \underline{-64} \\ 1 \text{ (R)} \end{array}$$

= 108 and 1 notebooks were left.

6. a. If $36 \div 9 = 4$, then $4 \times 9 = 36$ not $4 \div 9 = 36$.
So, the statement is false.
b. If $60 \div 10 = 6$, then $6 \times 10 = 60$.
So, the statement is true.
c. The remainder in a division operation is always less than the divisor.
So, the statement is false.
d. The dividend (the number being divided) is always equal to or greater than the divisor (the number by which we are dividing).
So, the statement is true.
e. Any number divided by itself is equal to 1, not 0.
So, the statement is false.

Puzzle

1. We know that, Dividend = (Quotient $\times$ Divisor) + Remainder
Given:
Quotient = 79, Divisor = 8 and Remainder = 5
Substituting these values into the formula.
Dividend = $(79 \times 8) + 5 = 632 + 5 = 637$
Thus, the number is 637
2. a. Total number of cookies Swati has, since each friend gets 24 cookies and there are 7 friends.
Total cookies = $24 \times 7 = 168$
Now, if Swati shares these 168 cookies with 6 friends, the number of cookies each friend will receive = Total cookies $\div$ number of friends = $168 \div 6 = 28$
Therefore, each friend will get 28 cookies.
b. If Swati shares these 168 cookies with 8 friends, the number of cookies each friend will receive = Total cookies $\div$ number of children = $168 \div 8 = 21$.

Mental Maths

1. a.

$$\begin{array}{r} \text{T O} \\ 13 \\ 5 \overline{) 65} \end{array}$$

b.

$$\begin{array}{r} \text{H T O} \\ 18 \\ 7 \overline{) 126} \end{array}$$

c.

$$\begin{array}{r} \text{T O} \\ 48 \\ 2 \overline{) 96} \end{array}$$

d.

$$\begin{array}{r} \text{H T O} \\ 89 \\ 9 \overline{) 801} \end{array}$$

2. a.

$$\begin{array}{r} \text{H T O} \\ 119 \\ 2 \overline{) 238} \\ \underline{-2} \\ 03 \\ \underline{-2} \\ 18 \\ \underline{-18} \\ 0 \end{array}$$

b.

$$\begin{array}{r} \text{H T O} \\ 126 \\ 4 \overline{) 505} \\ \underline{-4} \\ 10 \\ \underline{-8} \\ 25 \\ \underline{-24} \\ 1 \end{array}$$

c.

$$\begin{array}{r} \text{H T O} \\ 105 \\ 6 \overline{) 635} \\ \underline{-6} \\ 03 \\ \underline{-0} \\ 35 \\ \underline{-30} \\ 5 \end{array}$$

HOTS

1.

$$\begin{array}{l} 8 \div 4 = 2 \\ \times \\ 35 \div 60 \div 10 = 6 \\ \div \\ 5 \times 8 = 40 \\ = \\ 56 \div 7 = 8 \quad 12 \div 6 = 2 \end{array}$$

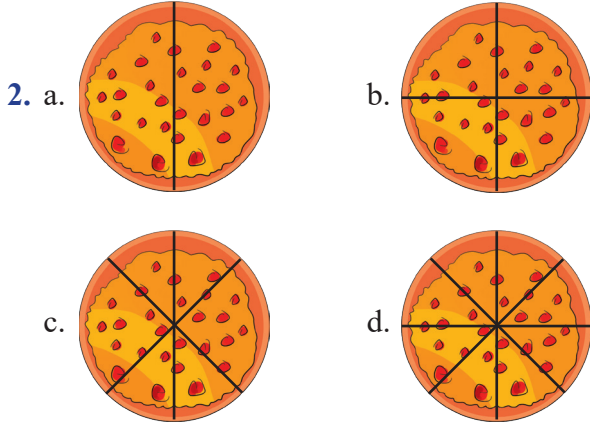
2.

$$\begin{array}{l} 36 \div 9 = 4 \\ \times \\ 30 \div 12 \div 2 = 6 \\ \div \\ 3 \times 6 = 18 \\ = \\ 60 \div 10 = 6 \quad 36 \div 6 = 6 \end{array}$$

CHAPTER 6 : FRACTIONS

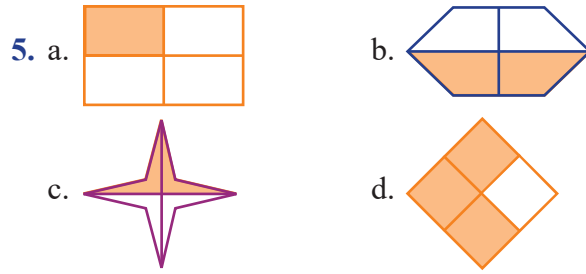
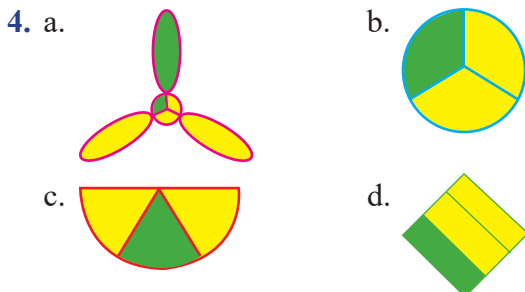
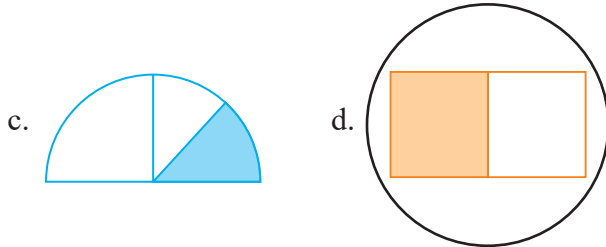
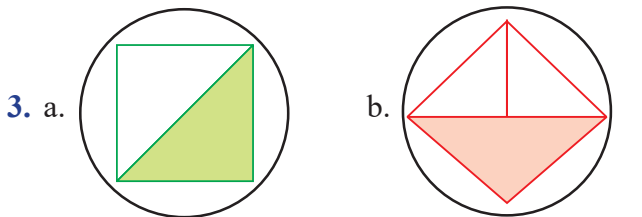
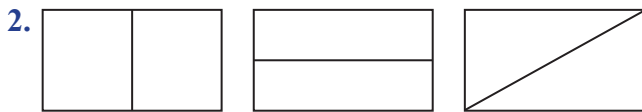
Warm Up

1. Since there are four friends, divide the pizza into four equal parts. Each friend gets **one** part out of the **four** equal parts.



Exercise 6A

1. a. Yes b. No
c. No d. No



6. a.

3	8	$\frac{3}{8}$	$\frac{5}{8}$
---	---	---------------	---------------

b.

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

c.

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

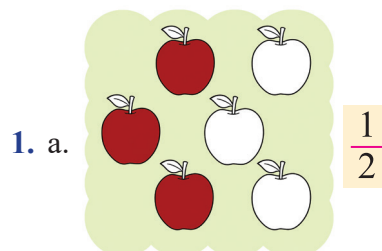
7. There are three wagons. Only one wagon is to be added which is shaded blue, so that half of the train is blue.

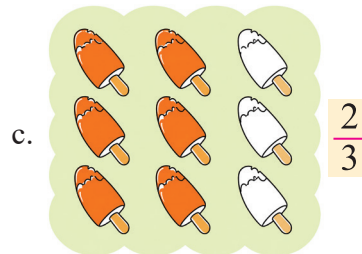
8.	Figure	a.	b.	c.	d.	e.	f.
a.	Number of shaded parts (numerator)	1	4	4	7	4	3
b.	Number of parts in all (denominator)	4	12	9	15	8	8
c.	Fraction for shaded parts	$\frac{1}{4}$	$\frac{4}{12}$	$\frac{4}{9}$	$\frac{7}{15}$	$\frac{4}{8}$	$\frac{3}{8}$

9. Total number of biscuits = 12
Mother takes half of the biscuits.
Half of 12 = 6
a. 6 biscuits are left. Colour them yellow.
b. 6 biscuits are taken away. Colour them brown.

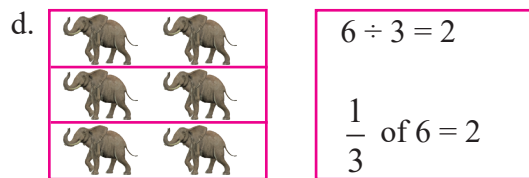
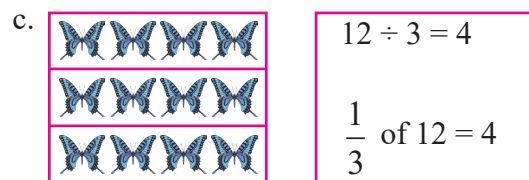
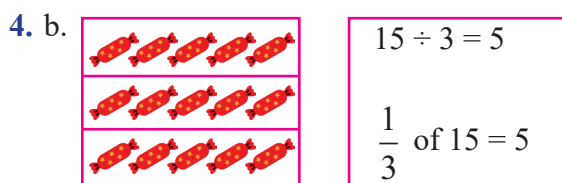
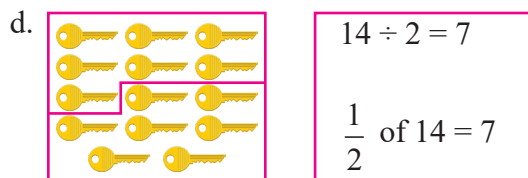
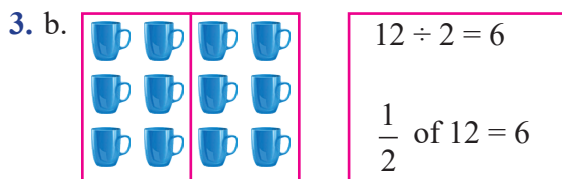
10. The chocolate was divided into 6 equal parts.
Ritu ate 1 part.
So, the fraction of chocolate eaten = $\frac{1}{6}$.

Exercise 6B





2. a. There are 4 flowers. 2 flowers are coloured.
The fraction for the coloured flowers is $\frac{2}{4}$.
- b. There are 5 toys. 2 toys are coloured. The fraction for the coloured toys is $\frac{2}{5}$.
- c. There are 9 apples. 6 apples are coloured. The fraction for the coloured apples is $\frac{6}{9}$.



Exercise 6C

1. Total questions = 10
Solved questions = 7
Unsolved questions = $10 - 7 = 3$
Fraction representing the unsolved questions
 $= \frac{3}{10}$
2. Total number of passengers in the bus = 16
Number of passengers who got off = 9
Fraction representing the passengers who got off
 $= \frac{9}{16}$
3. Total toffees given by mom = 18
- a. I ate = $\frac{1}{2}$ of 18 = 9
Therefore, I eat 9 toffees.
- b. I gave to my sister = $\frac{1}{3}$ of 18 = 6 toffees.

4. Total pocket money = ₹90

Money spent on stationery = $\frac{1}{3}$ of ₹90 = ₹30

Money spent on toys = $\frac{1}{3}$ of ₹90 = ₹30

a. Money spent of stationery and toys together = ₹30 + ₹30 = ₹60

b. Money left with him = ₹90 – ₹60 = ₹30.

5. Total pages in a story book = 32

Pages read by Sujoy = 15

Pages left for him to read = 32 – 15 = 17

Fraction of pages left to read = $\frac{17}{32}$

Learning Logs

1. a. Number of equal parts = 9

Number of red parts = 5

Fraction representing the red parts = $\frac{5}{9}$

b. Number of equal parts = 9

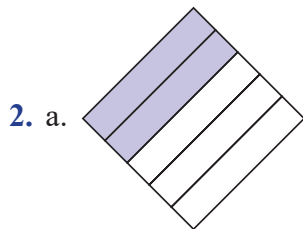
Number of blue parts = 2

Fraction representing the blue parts = $\frac{2}{9}$

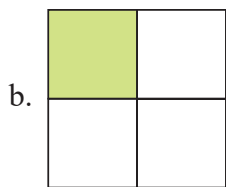
c. Number of equal parts = 9

Number of unshaded parts = 8

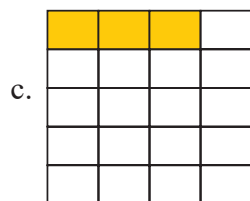
Fraction representing the unshaded parts = $\frac{8}{9}$



$\frac{2}{5}, \frac{1}{5}, \frac{3}{5}$



$\frac{3}{4}, \frac{1}{4}, \frac{2}{4}$



$\frac{3}{20}, \frac{4}{20}, \frac{8}{15}$

4. a. $\frac{1}{3}$ Three

b. $\frac{1}{2}$ Two

c. $\frac{1}{4}$ Four

d. $\frac{1}{9}$ Nine

e. $\frac{1}{5}$ Five

f. $\frac{1}{8}$ Eight

5. a. Number of bananas = 15

Hema ate = $\frac{1}{3}$ of 15 = $15 \div 3 = 5$ bananas.

b. Total rows of seats = 20

Occupied rows = 8

Not occupied rows = 20 – 8 = 12

Fraction of rows not occupied = $\frac{12}{20}$.

c. Number of toffees = 12

Ayushi ate = $\frac{1}{4}$ of 12 = $12 \div 4 = 3$ toffees.

d. Number of candles = 9

Sonam blows out = $\frac{1}{3}$ of 9 = $9 \div 3 = 3$ candles.

e. Total marks = 16

Marks scored by Joya = 8

Fraction of marks she got = $\frac{8}{16}$.

f. Total sums = 13

Finished sums = 7

Not finished sums = 13 – 7 = 6

Fraction of homework not finished = $\frac{6}{13}$.

Mental Maths

1. a. It represents $\frac{1}{8}$.

b. It represents $\frac{1}{8}$.

c. It represents $\frac{1}{6}$.

d. It represents $\frac{1}{8}$.

So, the correct option is (c).

2. In the given figure, the shaded region shows: $\frac{1}{4}$

So, the correct option is (a).

3. There are seven boxes in the figure, and each box is shaded in a different colour. So, the fraction represented by each colour is $\frac{1}{7}$.

So, the correct option is (d).



4. The white bond makes up one out of three equal parts of the flag. Fraction of flag that is white is $\frac{1}{3}$. So, the correct option is (b).
5. Total letters in MATHEMATICS = 11
Number of letter T = 2
Fraction represented by the letter T = $\frac{2}{11}$.
So, the correct option is (b).

HOTS

Total number of balls = 30

Ball given to Kareem = $\frac{1}{5}$ of 30 = $30 \div 5 = 6$ balls.

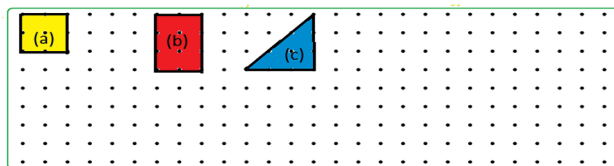
Ball given to Kavita = $\frac{1}{3}$ of 30 = $30 \div 3 = 10$ balls.

So, Kareem has 6 balls and Kavita has 10 balls.

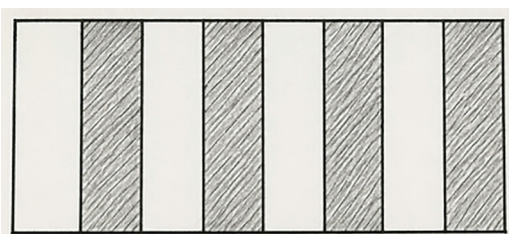
CHAPTER 7 : GEOMETRY

Warm Up

1. Road transport: vehicles like cars, buses, and trucks.
Rail transport – trains and trams.
Water transport – ships, boats, and ferries.
Air transport – airplanes, and helicopters.
2. a. Two-way traffic ahead
b. Petrol pump ahead
c. Left turn ahead
d. No horn/ Silence zone.



3.



4.

A zebra crossing is a type of pedestrian crossing marked with white stripes on the road. It helps people cross the road safely. Drivers must stop

to let pedestrians pass. The White strips of zebra crossing is usually rectangle, strips are always parallel and at equal distance.

Exercise 7A

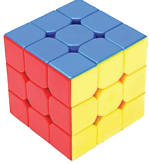
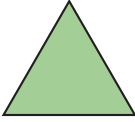
1. Object	a.	b.	c.	d.
Shape	Cuboid	Cube	Cylinder	Cone
Number of faces	6	6	3	2
Number of plane faces	6	6	2	1
Number of curved faces	0	0	1	1
Number of edges	12	12	2	1
Number of vertices	8	8	0	1

2. a. Yes, a cube is a special type of cuboid where all the edges are equal.
b. No, a cuboid cannot be a cube. A cuboid has rectangular faces and its edges can be of different lengths.
c. No, all the edges of a cuboid are not necessarily equal. Only opposite edges are equal.
d. Yes, all the edges of a cube are equal in length.
e. No, a cylinder does not have any straight edge. It has two circular faces and a curved surface.
f. A cone has 1 corner (also called the vertex).
g. A cylinder has 2 plane faces (the top and bottom circular faces).
3. a. Cylinder: Water bottle, Pencil
b. Cone: Ice cream cone, Birthday cap
4. Name of the given shape is cube. If we join two such solids face to face we get shape of cuboid.
5. a.
b.
c.
6. b. Cone

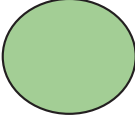
7. a. There are three cones.
b. There are three cylinders.
c. There are four rectangular blocks.
d. There are two cuboids at the base.
e. There are ten 3D objects in the picture.
8. Do it yourself.

Exercise 7B

5. Solid Traced Shape

a.  i. 

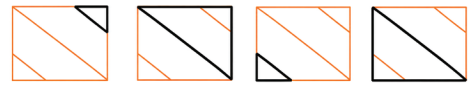
b.  ii. 

c.  iii. 

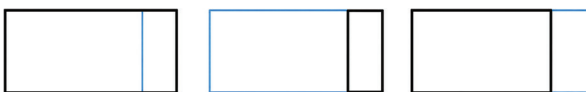
d.  iv. 

2. a. Circle
c. Square
3. a. Square
c. Circle
- b. Rectangle
d. Triangle

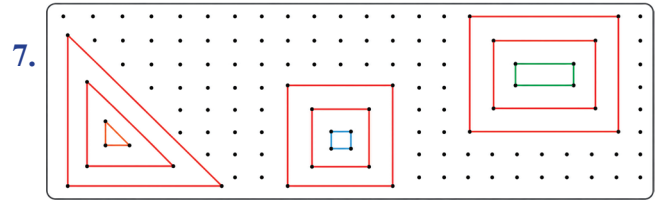
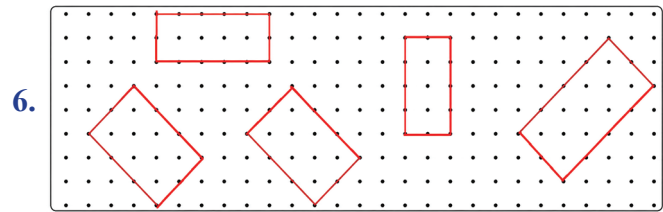
4. a. 
There are five triangles in the given figure.

b. 
There are four triangles in the given figure.

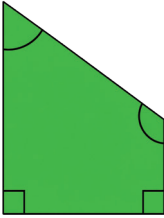
c. 
There are eight triangles in the given figure.

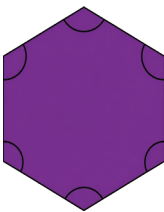
5. a. 
There are three rectangles in the given figure.

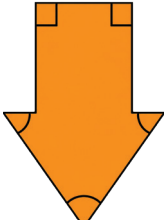
b. Same as above; Three rectangles.

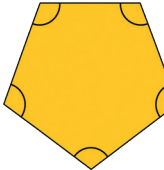


8. a. Rectangle
c. Circle
e. Circle
- b. Rectangle
d. Rectangle
f. Triangle
9. a. Rectangle
c. Circle
- b. Triangle
d. Square

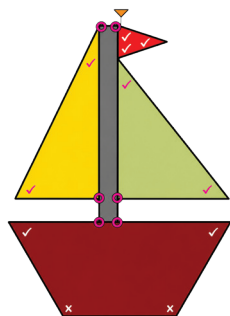
10. a. 
Number of square corners = 2
Number of less than square corners = 1
Number of more than square corners = 1

b. 
Number of square corners = 0
Number of less than square corners = 0
Number of more than square corners = 6

c. 
Number of square corners = 2
Number of less than square corners = 3
Number of more than square corners = 0

d. 
Number of square corners = 0
Number of less than square corners = 0
Number of more than square corners = 5

11.



Exercise 7C

1. a. The edge of a table
2. c. Circle
3. b. Road bend
4. a. Number of straight lines = 12; Number of curved lines = 6
- b. Number of straight lines = 12; Number of curved lines = 6
5. Shapes made by straight lines = 25; Shapes made by curved lines = 5

6.



Learning Logs

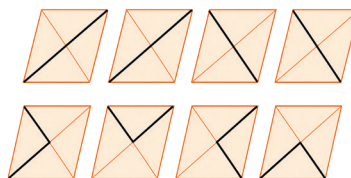
1. a. A triangle has 3 sides and 3 corners(vertices).
- b. A rectangle has 4 sides and 4 corners (vertices).
- c. All the sides of a square are equal.
- d. The opposite sides of a rectangle are equal.
- e. A circle has 0 sides and 0 corners (vertices).
2. a. I have 1 curved and 1 flat face. I am a cone.
- b. I have two flat and one curved face. I am a cylinder.
- c. I have 12 edges and 3 pairs of equal opposite faces. I am a cuboid.
- d. I have only 1 face and no corners. I am a sphere.
- e. I have 8 corners and 6 equal faces. I am cube.

3. a.



Number of rectangles = 18

b.



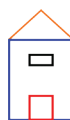
Number of triangles = 8

- c. Same as above; 5 triangles, 1 square, 3 rectangles.
- d. Same as above; 18 triangles, 3 squares, 4 rectangles.
4. Number of square corners = 8; Less than square corner = 14; More than square corner = 2.
5. Curved surface = 3; Plane surfaces = 7; Cone, Cylinder, Cuboid, Cube and Prism.

Mental Maths

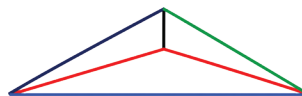
1. a. Sphere

2. b. 3



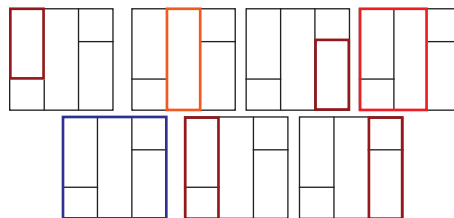
3. a. 4

4. a. 2

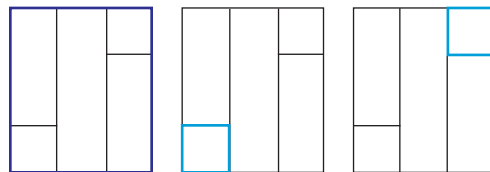


HOTS

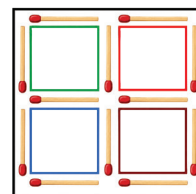
1. a. There are 7 rectangles in the given figure.



b. There are 3 squares in the given figure.



2. There are 5 squares can be made with 12 matchsticks.



MODEL TEST PAPER 1

- Largest two-digit number = 99
Smallest three-digit number = 100
Sum = $99 + 100 = 199$.
So, the correct answer is (d).
- $144 \div 9 = 16$
So, the correct answer is (b).
- The smallest 4-digit number is 1000. Since 1000 ends with 0, it is divisible by 10.
So, the correct answer is (a).
- Numbers rounded to the nearest ten to become 500.
The smallest number rounding to 500 is 495.
The greatest number rounding to 500 is 504.
So, the correct answer is (c).
- $23 \times 14 = 322$
So, the correct answer is (b).
- Cost of one pencil = ₹8
Cost of 15 such pencils = $15 \times ₹8 = ₹120$
So, the correct answer is (b).
- A cuboid has 6 faces, all are rectangles.
So, the correct answer is (c).
- From the given option, cube is a three-dimensional shape.
So, the correct answer is (c).
- A cuboid has 12 edges.
So, the correct answer is (b).
- A sphere has a smooth surface and no corners.
So, the correct answer is (b).
- a. The predecessor of 9090: $9090 - 1 = 9089$.
The statement is true.
b. The successor of 5751: $5751 + 1 = 5752$ not 5750.
The statement is false.
c. The place value of 3 in 2345 is 300 not 30.
The statement is false.
d. 3 thousands + 7 hundreds + 8 tens + 1 one
= $3000 + 700 + 80 + 1 = 3781$.
The statement is true.
e. 3795 rounded to the nearest 10 gives 6800.
The statement is true.
- a. Here, the pattern is increasing by 100 each time.
Next two numbers: $4320 + 100 = 4420$; and $4420 + 100 = 4520$
b. Here, the pattern is decreasing by 100 each time.

Next two numbers: $5630 - 100 = 5530$;
 $5530 - 100 = 5430$.

- a. $301 + 100 = 401$ b. $208 + 0 = 208$
c. $0 + 134 = 134$ d. $3264 - 0 = 3264$
e. $3640 - 1 = 3639$ f. $199 - 199 = 0$
g. $15 \times 10 = 150$ h. $38 \times 10 = 380$
i. $81 \times 100 = 8100$
- a. The place value of 3 and 5 in 3485 is 3000 and 5 respectively. Their sum is; $3000 + 5 = 3005$
The face value of 3 and 5 in 3485 is 3 and 5 respectively. Their sum is; $3 + 5 = 8$
The required difference = $3005 - 8 = 2997$.
b. Using the digits 4, 0, 5 and 7.
Greatest number: Arrange the digits in descending order, we get 7540.
Smallest Number: Arrange the digits in ascending order, keeping 0 after first digit, we get 4057.

15. a.
$$\begin{array}{r} 6327 \\ + 2698 \\ \hline 9025 \end{array}$$

b.
$$\begin{array}{r} 7036 \\ - 2698 \\ \hline 4338 \end{array}$$

c.
$$\begin{array}{r} 646 \\ \times 5168 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 101 \\ 6 \overline{) 607} \\ \underline{6} \\ 0 \\ \underline{0} \\ 07 \\ \underline{6} \\ 1 \end{array}$$

16. a. Total number of flowers = 15
= $\frac{1}{3}$ of 15



= $15 \div 3 = 5$
Colour 5 flowers.

- b. Number of apples = 16

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



= $16 \div 4 = 4$



Colour 4 apples.

17. a. $\frac{1}{2}$ of 40 = $40 \div 2 = 20$
b. $\frac{1}{5}$ of 35 = $35 \div 5 = 7$
c. $\frac{1}{6}$ of 48 = $48 \div 6 = 8$.



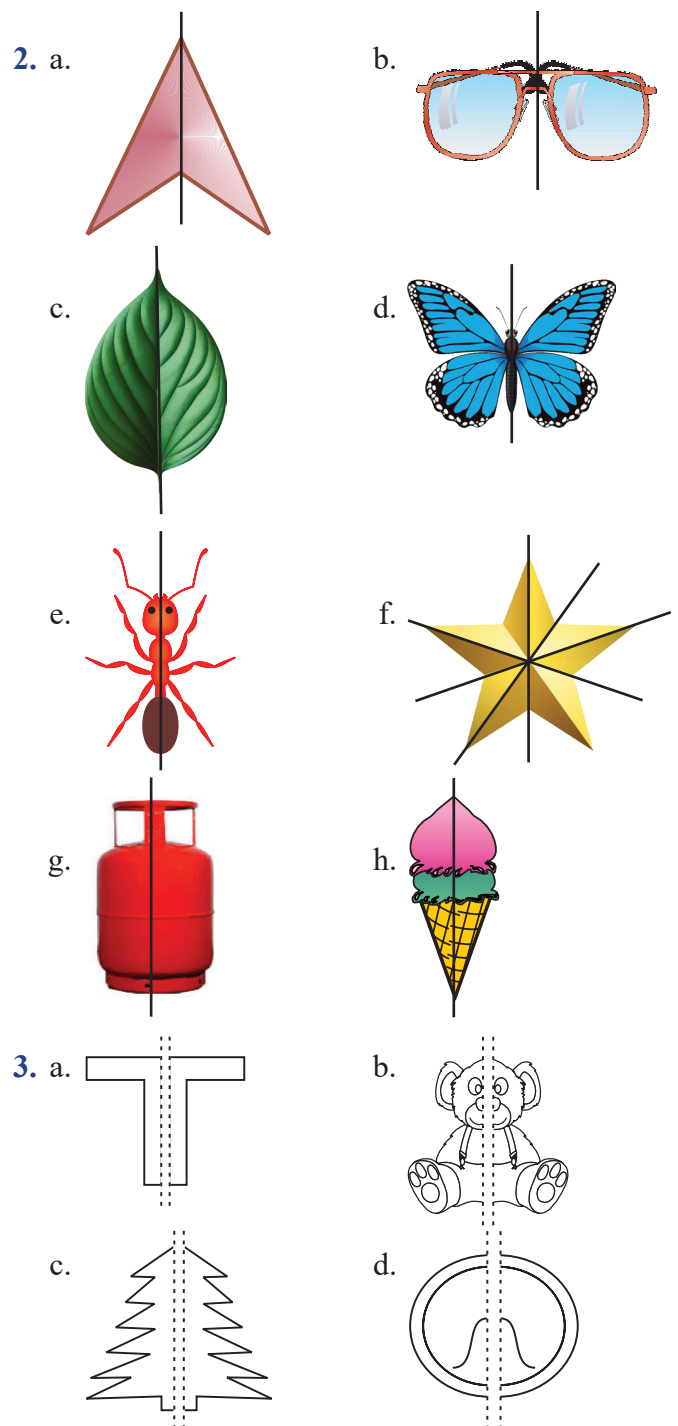
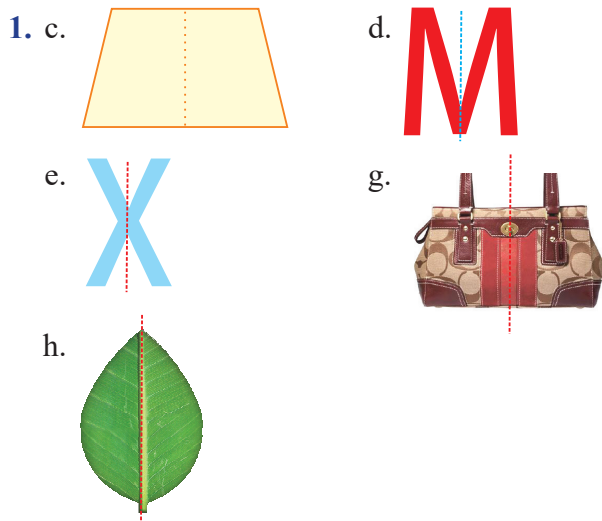
18. a. Number of equal parts = 8
Number of shaded parts = 3
Fraction of shaded part = $\frac{3}{8}$
- b. Number of equal parts = 16
Number of shaded parts = 5
Fraction of shaded part = $\frac{5}{16}$
19. a. A solid with six equal faces and eight vertices is a cube.
- b. A solid with six faces, eight vertices, and opposite faces equal is a cuboid.
Number of edges = 12.
- c. A solid with two surfaces, one edge, and one vertex is cone.
- d. A globe is shaped like a sphere.
- e. A solid with three faces, two edges, and no vertices is a cylinder.
20. Total chairs arranged = 6872
Occupied chairs = 3755
Unoccupied chairs = 6872 - 3755 = 3117
Thus, 3117 chairs are not occupied.

21.

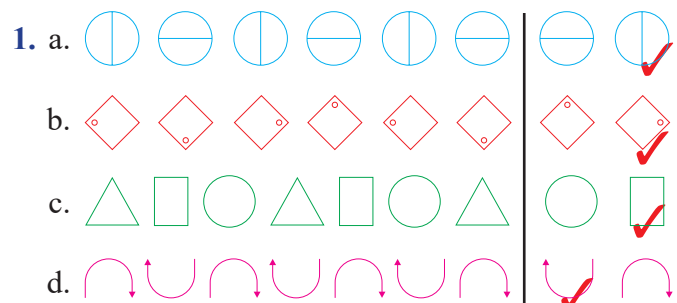
	Square corners	More than square corners	Less than square corners
a.	2	1	1
b.	0	6	0

CHAPTER 8: SYMMETRY AND PATTERNS

Exercise 8A

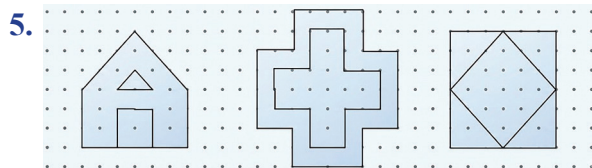


Exercise 8B

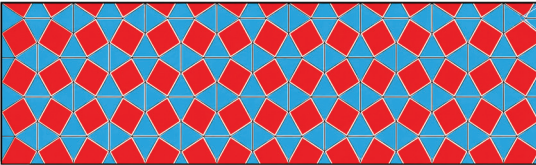


2. a. 
- b. 100 110 100 110 100 110
- c. 
- d. 

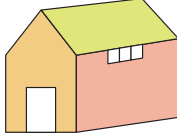
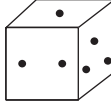
3. a. Here, the pattern is increasing by 4 each time.
So, the missing numbers are: $13 + 4 = 17$; $17 + 4 = 21$; $21 + 4 = 25$; $25 + 4 = 29$
- b. Here, the pattern is increasing by 50 each time.
So, the missing numbers are: $170 + 50 = 220$; $220 + 50 = 270$; $270 + 50 = 320$; $320 + 70 = 390$
- c. Here, the pattern is increasing by sum of the previous two numbers each time.
So, the missing numbers are: $5 + 8 = 13$; $13 + 8 = 21$; $21 + 13 = 34$.
- d. Same as part (a); 40, 45, 50
- e. Same as part (a); 141, 151, 161
- f. Same as part (a); 1075, 1085, 1095
- g. Each letter moves forward by 1 in the alphabet and first letter should be capital.
So, the missing terms are: Def, Efg, Fgh
- h. A, C, E, G, I, ____, ____, ____
Skip one letter in the alphabet each time.
So, the missing alphabets are: K, M, O.



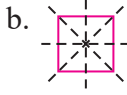
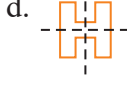
Exercise 8C

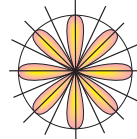
1. 
2. Honeycomb, Chessboard
3. Fish

Exercise 8D

1. a. 
Front view Side view Top view
- b. 
Front view Top view Side view
- c. 
Front view Top view Side view
2. a. Front view b. Side view
- c. Top view
3. a. West b. West
- c. East d. West

Learning Logs

1. a. 
c. 
- b. 
d. 
2. a. There are 8 lines of symmetry.



3. a. 
- b. AAB AAC AAD AAE AAF AAG
- c. 1 3 5 7 9 11
- d. 
- e. A1 B2 C3 D4 E5 F6
4. a. The pattern shows that the bottom number is the sum of the two numbers above it. The pattern is $3 + 5 = 8$, $5 + 7 = 12$. The missing numbers are: $7 + 9 = 16$ and $20 - 8 = 12$.
- b. The last letter of every word has been deleted. 'Tend' is written as 'Ten'.

- c. 



- d. The pattern shows that the bottom number is the difference of the two numbers above it. The pattern is $9 - 6 = 3$, $10 - 5 = 5$. The missing numbers are: $11 - 4 = 7$ and $20 - 9 = 11$.

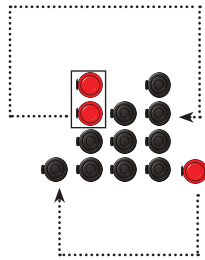
5. a.

Mental Maths

a b c d e f g h i

So, the last letter is "i".

HOTS



CHAPTER 9 : MEASUREMENT OF LENGTH

Warm Up

1. Ruler is used to measure the length of line.
2. Metre rod is used by shopkeepers to measure by tailor to take cloth.
3. Measuring tape is used by tailor to take measurements.
4. Odometer is used in cars and bikes measurements to measure distance.

Exercise 9A

1. a. cm
c. cm
e. cm
g. cm
i. m
2. a. 14 cm
c. 12 cm
e. 9 cm
3. a. Length of Route I: $4\text{m} + 4\text{m} + 6\text{m} + 3\text{m} + 5\text{m} + 6\text{m} = 28\text{m}$
And length of Route II: $6\text{m} + 8\text{m} + 4\text{m} + 8\text{m} + 3\text{m} + 5\text{m} = 34\text{m}$
Since $28\text{m} < 34\text{m}$, Route I is shortest route around rocks.

- Rock A is directly connected to rock F and distance between rock A and rock F is 5m.
- Length of route from rock A to rock C via rock B: $4\text{m} + 4\text{m} = 8\text{m}$.
- The length of shortest route from rock D to rock C is 8m.

Exercise 9B

1. a. $4\text{ m} = 4 \times 100\text{ cm} = 400\text{ cm}$
b. $14\text{ m} = 14 \times 100\text{ cm} = 1400\text{ cm}$
c. $26\text{ m} = 26 \times 100\text{ cm} = 2600\text{ cm}$
d. $5\text{ m } 10\text{ cm} = 5 \times 100\text{ cm} + 10\text{ cm} = 500\text{ cm} + 10\text{ cm} = 510\text{ cm}$
e. $95\text{ m } 8\text{ cm} = 95 \times 100\text{ cm} + 8\text{ cm} = 9500\text{ cm} + 8\text{ cm} = 9508\text{ cm}$
f. $12\text{ m } 18\text{ cm} = 12 \times 100\text{ cm} + 18\text{ cm} = 1200\text{ cm} + 18\text{ cm} = 1218\text{ cm}$
g. $45\text{ m } 75\text{ cm} = 45 \times 100 + 75\text{ cm} = 4500 + 75 = 4575\text{ cm}$
2. a. $5\text{ km} = 5 \times 1000\text{ m} = 5000\text{ m}$
b. $6\text{ km} = 6 \times 1000\text{ m} = 6000\text{ m}$
c. $9\text{ km} = 9 \times 1000\text{ m} = 9000\text{ m}$
d. $4\text{ km } 300\text{ m} = 4 \times 1000\text{ m} + 300\text{ m} = 4000\text{ m} + 300\text{ m} = 4300\text{ m}$
e. $2\text{ km } 500\text{ m} = 2 \times 1000\text{ m} + 500\text{ m} = 2000\text{ m} + 500\text{ m} = 2500\text{ m}$
f. $6\text{ km } 15\text{ m} = 6 \times 1000\text{ m} + 15\text{ m} = 6000\text{ m} + 15\text{ m} = 6015\text{ m}$
g. $1\text{ km } 425\text{ m} = 1 \times 1000\text{ m} + 425\text{ m} = 1000\text{ m} + 425\text{ m} = 1425\text{ m}$

Learning Logs

1. a. $100\text{ cm} = 1\text{ m}$
c. $100\text{ cm} = 1\text{ m}$
2. a. $8\text{ m} = 8 \times 100\text{ cm} = 800\text{ cm}$
b. $46\text{ m} = 46 \times 100 = 4600\text{ cm}$
c. $12\text{ m } 7\text{ cm} = 12 \times 100\text{ cm} + 7\text{ cm} = 1200\text{ cm} + 7\text{ cm} = 1207\text{ cm}$
d. $38\text{ m } 85\text{ cm} = 38 \times 100\text{ cm} + 85\text{ cm} = 3800\text{ cm} + 85\text{ cm} = 3885\text{ cm}$
3. a. $7\text{ km } 209\text{ m} = 7 \times 1000\text{ m} + 209\text{ m} = 7000\text{ m} + 209\text{ m} = 7209\text{ m}$
b. $3\text{ km } 486\text{ m} = 3 \times 1000\text{ m} + 486\text{ m} = 3000\text{ m} + 486\text{ m} = 3486\text{ m}$

- c. $4 \text{ km } 876 \text{ m} = 4 \times 1000 \text{ m} + 876 \text{ m} = 4000 \text{ m} + 876 \text{ m} = 4876 \text{ m}$
- d. $3 \text{ km } 911 \text{ m} = 3 \times 1000 \text{ m} + 911 \text{ m} = 3000 \text{ m} + 911 \text{ m} = 3911 \text{ m}$
4. a. Distance from Home to the Shopping Mall via Temple: $4 \text{ km} + 3 \text{ km} = 7 \text{ km}$
Distance from Home to the Shopping Mall via Bank: $6 \text{ km} + 5 \text{ km} = 11 \text{ km}$
Since 7 km is less than 11 km , the car should take the route from Home to the Shopping Mall via Temple.
- b. If Sonia takes the longer route, she will have to cover $11 \text{ km} - 7 \text{ km} = 4 \text{ km}$ more.

Mental Maths

- (c) cm
- (b) km
- (b) metre rod
- (a) 3967 cm
- (a) 6055 m

CHAPTER 10 : MEASUREMENT OF WEIGHT

Warm Up

- Varun's weight = 25 kg, Rajeev's weight = 27 kg
Since $27 \text{ kg} > 25 \text{ kg}$, Rajeev is heavier than Varun.
- Puneet's weight = 33 kg, Sujoy's weight = 32 kg
Since $32 \text{ kg} < 33 \text{ kg}$, Sujoy is lighter than Puneet.
- Looking at all weights: 19, 21, 25, 27, 27, 30, 32, 33. The highest weight is 33kg, which belongs to Puneet. Therefore, Puneet is the heaviest student.
- Ordering the weights from lightest to heaviest: $19 \text{ kg} < 21 \text{ kg} < 25 \text{ kg} < 27 \text{ kg} = 27 \text{ kg} < 30 \text{ kg} < 32 \text{ kg} < 33 \text{ kg}$.
So, the final order from the lightest to the heaviest is:
Rachna, Geeta, Varun, Arun, Rajeev, Ajay, Sujoy, Puneet.
- Looking at the weights, 27 kg appears twice, belonging to Arun and Rajeev.
Therefore, Arun and Rajeev weigh the same.

Exercise 10A

- g
 - kg
 - mg
 - g
 - kg
 - g
 - g
 - kg
- Less than 1 kg
 - More than 1 kg
 - Less than 1 kg
 - More than 1 kg
 - Less than 1 kg
 - More than 1 kg
 - More than 1 kg
 - Less than 1 kg

Exercise 10B

- $4 \text{ kg} = 4 \times 1000 \text{ g} = 4000 \text{ g}$
 - $6 \text{ kg} = 6 \times 1000 \text{ g} = 6000 \text{ g}$
 - $9 \text{ kg} = 9 \times 1000 \text{ g} = 9000 \text{ g}$
 - $3 \text{ kg} = 3 \times 1000 \text{ g} = 3000 \text{ g}$
 - $7 \text{ kg} = 7 \times 1000 \text{ g} = 7000 \text{ g}$
 - $2 \text{ kg} = 2 \times 1000 \text{ g} = 2000 \text{ g}$
- $1 \text{ kg } 200 \text{ g} = 1 \times 1000 \text{ g} + 200 \text{ g} = 1000 \text{ g} + 200 \text{ g} = 1200 \text{ g}$
 - $3 \text{ kg } 500 \text{ g} = 3 \times 1000 \text{ g} + 500 \text{ g} = 3000 \text{ g} + 500 \text{ g} = 3500 \text{ g}$
 - $4 \text{ kg } 800 \text{ g} = 4 \times 1000 \text{ g} + 800 \text{ g} = 4000 \text{ g} + 800 \text{ g} = 4800 \text{ g}$
 - $5 \text{ kg } 400 \text{ g} = 5 \times 1000 \text{ g} + 400 \text{ g} = 5000 \text{ g} + 400 \text{ g} = 5400 \text{ g}$
 - $6 \text{ kg } 800 \text{ g} = 6 \times 1000 \text{ g} + 800 \text{ g} = 6000 \text{ g} + 800 \text{ g} = 6800 \text{ g}$
 - $9 \text{ kg } 76 \text{ g} = 9 \times 1000 \text{ g} + 76 \text{ g} = 9000 \text{ g} + 76 \text{ g} = 9076 \text{ g}$

3. a.



b.





4. Step 1: Convert all weights to grams for easier comparison

$$T = 1 \text{ kg } 728 \text{ g} = 1728 \text{ g}$$

$$D = 2 \text{ kg} = 2000 \text{ g}$$

$$I = 1 \text{ kg } 210 \text{ g} = 1210 \text{ g}$$

$$R = 1 \text{ kg } 301 \text{ g} = 1301 \text{ g}$$

$$Y = 2 \text{ kg } 167 \text{ g} = 2167 \text{ g}$$

$$A = 2 \text{ kg } 50 \text{ g} = 2050 \text{ g}$$

$$B = 1 \text{ kg } 31 \text{ g} = 1031 \text{ g}$$

$$H = 1 \text{ kg } 827 \text{ g} = 1827 \text{ g}$$

Step 2: Arrange in increasing order

$$B = 1031 \text{ g}; I = 1210 \text{ g}; R = 1301 \text{ g}; T = 1728 \text{ g};$$

$$H = 1827 \text{ g}; D = 2000 \text{ g}; A = 2050 \text{ g}; Y = 2167 \text{ g}$$

Step 3: Write the letter in order of increasing weight.

B, I, R, T, H, D, A, Y

If we read the letters in order: BIRTHDAY.

You will get a gift when it is your BIRTHDAY.

Exercise 10C

1. a. The weight on one side of the scale is
 $2 \text{ kg} + 5 \text{ kg} = 7 \text{ kg}$
 Weight of the potatoes + 1 kg = Weight on the other side of the scale = 7 kg
 Think of different denominations of weight.
 $6 \text{ kg} + 1 \text{ kg} = 7 \text{ kg}$
 Hence, the weight of the potatoes = $7 \text{ kg} - 1 \text{ kg} = 6 \text{ kg}$.
2. The weight on one side of the scale is
 $1 \text{ kg} + 5 \text{ kg} = 6 \text{ kg}$
 Weight of a bag + 2 kg = Weight on the other side of the scale = 6 kg
 Think of different denominations of weight.
 $4 \text{ kg} + 2 \text{ kg} = 6 \text{ kg}$
 Hence, the weight of a bag = $6 \text{ kg} - 2 \text{ kg} = 4 \text{ kg}$.
3. Same as above; 1 kg

4. Same as above; 5 kg
5. Cheese + 500 g = 1 kg + 2 kg
 Cheese + 500 g = 2 kg + 1000 g (Since 1 kg = 1000 g)
 Cheese + 500 g = 2 kg + 500 g + 500 g
 Hence, the weight of the cheese is = 2 kg + 500 g = 2 kg 500 g.
6. Same as question 5; 500 g
7. Same as question 5; 1 kg 500 g
8. Same as question 5; 300 g

Learning LOGS

1. a. $3 \text{ kg} = 3 \times 1000 \text{ g} = 3000 \text{ g}$
 b. $2 \text{ kg} = 2 \times 1000 \text{ g} = 2000 \text{ g}$
 c. $2 \text{ kg } 368 \text{ g} = 2 \times 1000 \text{ g} + 368 \text{ g}$
 $= 2000 \text{ g} + 368 \text{ g} = 2368 \text{ g}$
 d. - i. Same as part (c).
2. a. Group 1: Total weight of Mayank, Riya, and Mohit = 100 kg
 $32 \text{ kg} + 31 \text{ kg} + \text{Mohit's weight} = 100 \text{ kg}$
 $63 \text{ kg} + \text{Mohit's weight} = 100 \text{ kg}$
 $\text{Mohit's weight} = 100 \text{ kg} - 63 \text{ kg} = 37 \text{ kg}$
 Group 2: Total weight of Maya, Amar, and Vikas = 100 kg
 $36 \text{ kg} + 44 \text{ kg} + \text{Vikas's weight} = 100 \text{ kg}$
 $80 \text{ kg} + \text{Vikas's weight} = 100 \text{ kg}$
 $\text{Vikas's weight} = 100 \text{ kg} - 80 \text{ kg} = 20 \text{ kg}$
 Group 3: Total weight of Gaurav, Mihir, and Kavya = 100 kg
 $41 \text{ kg} + 26 \text{ kg} + \text{Kavya's weight} = 100 \text{ kg}$
 $67 \text{ kg} + \text{Kavya's weight} = 100 \text{ kg}$
 $\text{Kavya's weight} = 100 \text{ kg} - 67 \text{ kg} = 33 \text{ kg}$
 b. Group 1: Mohit is the heaviest.
 Group 2: Amar is the heaviest.
 Group 3: Gaurav is the heaviest.

Mental Maths

1. c. Balance
2. a. kg
3. $7 \text{ kg } 784 \text{ g} = 7 \times 1000 \text{ g} + 784 \text{ g}$
 $= 7000 \text{ g} + 784 \text{ g} = 7784 \text{ g}$
 So, the correct option is (a).
4. b. On one side there are 4 tea packets.
 On the other side there is 1 kilogram of pulses.
 The scale is balanced, so both sides weigh the same.

If 4 tea packets weigh the same as 1 kilogram, then 1 tea packet must weigh 1 out of 4 parts of 1 kilogram, which is a quarter kilogram.

HOTS

- The smallest set of standard weights is 1 kg, 3 kg, 9 kg, 27, kg.
These are powers of 3. Using weights 3^0 , 3^1 , 3^2 , 3^3 you can measure every integer mass from 1 kg to 40 kg.
- First, compare any two bags using the balance to find which is heavier. Then keep the lighter bag aside and put the third bag on that pan. The one that remains heavier after the second comparison is the heaviest bag.

CHAPTER 11 : MEASUREMENT OF CAPACITY

Warm Up

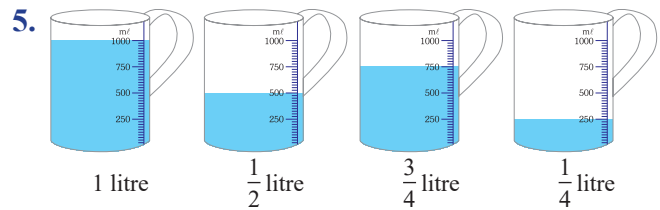
- Litre(L)
- Litre(L)
- Millilitre(mL)
- Litre(L)
- Litre(L)
- Litre(L)
- Millilitre(mL)
- Millilitre(mL)
- Litre(L)
- Millilitre(mL)

Exercise 11A

- Cup of tea – 200 mL
 - Jug – 1 L
 - Spoon – 5mL
 - Bucket – 10 L
- Water in your bottle = 500 mL
 - Tea in a cup = 200 mL
 - Lemon soda in a glass = 300 mL
 - Sanitizer in a bottle = 50 mL
 - 3 pouches of milk = 3 L



- 250 mL
 - 300 mL
 - 1 L
 - 3 L
 - 150 mL
 - 100 mL



Exercise 11B

- Capacity of a jug is 1L.
 $1\text{ L} = 1000\text{ mL} = 200\text{ mL} + 200\text{ mL} + 200\text{ mL} + 200\text{ mL} + 200\text{ mL}$
So, capacity of each can is 200 mL
 - Capacity of milk packet = 500 mL.
 $500\text{ mL} = 100\text{ mL} + 100\text{ mL} + 100\text{ mL} + 100\text{ mL} + 100\text{ mL}$
So, capacity of each bottle is 100 mL.
 - Capacity of can = 3 L
 $3\text{ L} = 500\text{ mL} + 500\text{ mL} + 500\text{ mL} + 500\text{ mL} + 500\text{ mL} + 500\text{ mL}$
So, capacity of each bottle is 500 mL.
 - Capacity of can = 1 L
 $1\text{ L} = 250\text{ mL} + 250\text{ mL} + 250\text{ mL} + 250\text{ mL}$
So, capacity of each bottle is 250 mL.
- Two 500 mL = $2 \times 500\text{ mL} = 1000\text{ mL} = 1\text{ L}$
 - Five 200 mL = $5 \times 200\text{ mL} = 1000\text{ mL} = 1\text{ L}$
 - Four 250 mL = $4 \times 250\text{ mL} = 1000\text{ mL} = 1\text{ L}$
 - $1\text{ L} = 1000\text{ mL} = 250\text{ mL} + 250\text{ mL} + 250\text{ mL} + 250\text{ mL}$
So, 1 L = four 250 mL
 - Twenty 50 mL = $20 \times 50\text{ mL} = 1000\text{ mL} = 1\text{ L}$
 - $500\text{ mL} = 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL} + 50\text{ mL}$
So, ten 50 mL = 500 mL
- $8\text{ L} = 8 \times 1000\text{ mL} = 8000\text{ mL}$
 - $5\text{ L} = 5 \times 1000\text{ mL} = 5000\text{ mL}$
 - $6\text{ L} = 6 \times 1000\text{ mL} = 6000\text{ mL}$
 - $9\text{ L} = 9 \times 1000\text{ mL} = 9000\text{ mL}$
- $4\text{ L } 3\text{ mL} = 4 \times 1000\text{ mL} + 3\text{ mL} = 4000\text{ mL} + 3\text{ mL} = 4003\text{ mL}$
 - $3\text{ L } 90\text{ mL} = 3 \times 1000\text{ mL} + 90\text{ mL} = 3000\text{ mL} + 90\text{ mL} = 3090\text{ mL}$
 - $2\text{ L } 921\text{ mL} = 2 \times 1000\text{ mL} + 921\text{ mL} = 2000\text{ mL} + 921\text{ mL} = 2921\text{ mL}$

$$\begin{aligned} \text{d. } 7 \text{ L } 600 \text{ mL} &= 7 \times 1000 \text{ mL} + 600 \text{ mL} \\ &= 7000 \text{ mL} + 600 \text{ mL} = 7600 \text{ mL} \end{aligned}$$

Learning Logs

1. a. $1 \text{ L} = 1 \times 1000 \text{ mL} = \underline{1000} \text{ mL}$
 b. $1000 \text{ mL} = 1000 \div 1000 = \underline{1} \text{ L}$
 c. In short, litre is written as L.
 d. In short, milliliter is written as mL.

2. a. mL
 c. mL

- b. L
 d. mL

3. a.



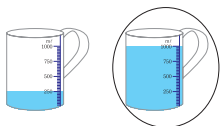
- b.



- c.



4. a.



- b.



- c.



5. a.



L

- b.



mL

- c.



L

- d.



L

- e.



mL

- f.



mL

6. a. $3 \text{ L} = 3 \times 1000 \text{ mL} = 3000 \text{ mL}$
 b. $7 \text{ L} = 7 \times 1000 \text{ mL} = 7000 \text{ mL}$
 c. $8 \text{ L } 300 \text{ mL} = 8 \times 1000 \text{ mL} + 300 \text{ mL} = 8000 \text{ mL} + 300 \text{ mL} = 8300 \text{ mL}$

- d. $4 \text{ L } 832 \text{ mL} = 4 \times 1000 \text{ mL} + 832 \text{ mL} = 4000 \text{ mL} + 832 \text{ mL} = 4832 \text{ mL}$
 e. $8 \text{ L } 647 \text{ mL} = 8 \times 1000 \text{ mL} + 647 \text{ mL} = 8000 \text{ mL} + 647 \text{ mL} = 8647 \text{ mL}$
 f. $4 \text{ L } 288 \text{ mL} = 4 \times 1000 \text{ mL} + 288 \text{ mL} = 4000 \text{ mL} + 288 \text{ mL} = 4288 \text{ mL}$

Mental Maths

1. a. millilitres
 2. b. $4 \text{ L } 65 \text{ mL} = 4 \times 1000 \text{ mL} + 65 \text{ mL} = 4000 \text{ mL} + 65 \text{ mL} = 4065 \text{ mL}$
 So, the correct answer is (b).

HOTS

1. Two half-litre = $500 \text{ mL} + 500 \text{ mL} = 1000 \text{ mL} = 1 \text{ L}$

One two-litre = 2 L

Since, $1 \text{ L} < 2 \text{ L}$, one two-litre pack of ghee is more.

2. Total capacity of bottle = 8 L

$$\text{Water filled in a bottle} = \frac{1}{4} \times 8 = 2 \text{ L}$$

Remaining water that can be filled = $8 - 2 = 6 \text{ L}$

Therefore, 6 litres more water can be filled.

Puzzle

Steps to be taken:-

Steps	Action Done	8 L Container	5 L Container	3 L Container
	Initial state	8 L	0 L	0 L
1	Pour from 8 L into 5 L	3 L	5 L	0 L
2	Pour from 8 L into 3 L	3 L	2 L	3 L
3	Pour from 3 L back into 8 L	6 L	2 L	0 L
4	Pour 2 L from 5 L into 3 L	6 L	0 L	2 L
5	Pour from 8 L to fill 5 L	1 L	5 L	3 L
6	Fill rest of 3 L from 5 L	1 L	4 L	3 L
7	Pour all 3 L back into 8 L	4 L	4 L	0 L

CHAPTER 12: TIME

Warm Up

The first session starts at 7 o'clock.

It ends at 8 o'clock.

1. 	2. 
7 o'clock	8 o'clock
7:00	8:00
3. 	4. 
9 o'clock	10 o'clock
9:00	10:00
5. 	
11 o'clock	
11:00	

Exercise 12A

1. b. 	c. 
8:30	5:30
Half-past eight	Half-past five
d. 	
7:30	
Half-past Seven	

2. a. 	b. 
1:30	4:30
c. 	d. 
6:30	3:30

3. a. Bunny wakes up at 6:30.



b. Bunny goes to school at half past 7.



c. Bunny comes back home at 2 o'clock.



d. Bunny goes to play at half past 5.



Exercise 12B

1. a.



i. 8:45

b.



ii. 12:15

c.



iii. 11:45

d.



iv. 4:15

2. a.



3:15

b.



8:15

c.



2:45

d.



11:45

3. b. In this clock, the hour hand is beyond 2. The minute-hand is on 3.
So, we say that the time is 2:15 or quarter past 2.



2:15

- c. In this clock, the hour hand is beyond 2. The minute hand is on 9.

So, we say that the time is 2:45 or quarter to 3.



2:45

- d. In this clock, the hour hand is beyond 7. The minute hand is on 9.

So, we say that the time is 7:45 or quarter to 8.



7:45

Exercise 12C

1. b. 25 minutes past 10
c. 15 minutes past 10 or quarter past 10
d. 15 minutes to 8 or quarter to 8.
2. a. 15 minutes to 1 b. Quarter past 10
c. 10 minutes to 3 d. 5 minutes past 8

3. a.



25 minutes to 2

b.



20 minutes past 12

c.



15 minutes to 2

d.



10 minutes past 9

4. b. 26 minutes past 9 = 9:26
c. 5 minutes to 12 = 11:55
d. 5 minutes past 7 = 7:05

Exercise 12D

1. a. 5:30 a.m. b. 7:15 p.m.
c. 6:55 a.m. d. 9:40 a.m.
e. 10:25 p.m. f. 5:00 p.m.
g. 3:45 a.m. h. 8:05 p.m.

3. a. It takes about a **minute** to tie your shoelaces.
b. It takes about a **second** to blink your eyes.
c. It takes about 5 **minutes** to cook noodles.
d. It takes about 5 **minutes** to sing a song.
e. It takes about a **month** to get the next salary.
f. It takes about 8 **hours** to sleep at night.
g. It takes about 15 **minutes** to eat breakfast.

a. Original time: 2:30 $\rightarrow$ 1 hour before: move hour hand to 1:30, 1 hour after: move hour hand to 3:30

Exercise 12G

- 4th January, 2003 or 04.01.2003
 - 21st April, 2014 or 21.04.2014
 - 16th May, 2018 or May 16, 2018
- National Statistics Day: 29 June
 - Ramanujan's Birthday: 22 December
 - International women in Mathematics Day: 12 May
 - International Day of Mathematics: 14 March

Learning Logs

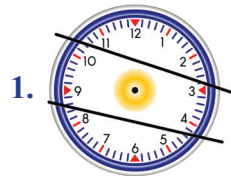
- 10:45 → (iii) Quarter to 11
 - 8:15 → (v) Quarter past 8
 - 9:20 → (ii) 20 minutes past 9
 - 6:40 → (i) 20 minutes to 7
 - 5:30 → (iv) Half past 5
- I wake up at 6:15 a.m.
 - I take 10 minutes to wash up. Now, the time is 6:25 a.m.
 - I take 15 minutes to get dressed. Now, the time is 6:40 a.m.
 - It takes me 15 minutes to have breakfast. Now, the time is 6:55 a.m.
 - I leave for school 5 minutes after having breakfast. The time is 7:00 a.m.
 - It takes me 20 minutes to walk to school. The time is 7:20 a.m.
- November 15, 2018; 15.11.2018
 - 16th November, 2019; 16.11.2019
 - 26.01.2020; 26th January, 2020
- The movie began at 11:15 a.m. Its duration was 2 hours. The time at which movie ends is 11:15 a.m. + 2 hours = 1:15 p.m.
Thus, the movie ended at 1:15 p.m.
- If 28th April is a Saturday.
29th April (Sunday), 30th April (Monday), 1st May (Tuesday)
So, 1st May will be a Tuesday.
- Saturday

Mental Maths

- In the given clock, the hour hand is beyond 5 and minute hand is on 3. So the time shown in the clock is Quarter past 5. So, the correct answer is (a).
- Correct option is (c).
- Correct option is (a).
- 5:30 → Half past 5 (Correct)
 - 10:15 → Quarter to 10 (Incorrect)
 - 8:45 → Quarter to 9 (Correct)
 - 3:30 → Half past 3 (Correct)

So, the correct option is (b).
- Correct option is (c).

HOTS



CHAPTER 13: MONEY

Warm Up

- $₹200 + ₹50 + ₹20 + ₹10 = ₹290$
Saket had ₹290.
- $₹200 + ₹10 + ₹10 + ₹5 + ₹5 = ₹230$
Tanmay had ₹230.
- $₹200 + ₹50 + ₹50 + ₹20 + ₹10 + ₹5 = ₹335$
Arun had ₹335.
- $₹200 + ₹200 + ₹10 + ₹10 = ₹420$
Rahul had ₹420.

Exercise 13A

1.	Column A	Column B
a.	$₹2 + ₹5 + ₹5 + ₹50$ $= ₹62$	$₹20 + ₹20 + ₹1 + ₹10$ $= ₹51$
b.	₹100	₹200
c.	$₹100 + ₹10 + ₹20 + ₹50 + ₹20 = ₹200$	$₹10 + ₹10 + ₹20 + ₹20 + ₹20 + ₹20 = ₹100$
d.	$₹20 + ₹20 + ₹2 + ₹5 + ₹2 + ₹2 = ₹51$	$₹20 + ₹20 + ₹20 + ₹1 + ₹1 = ₹62$

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

2. Kanika has ₹1, ₹2, ₹5 coins and ₹10, ₹20, ₹50, ₹100 notes. She can use any combination of these to pay for items.

a. Cost of cupcake = ₹35

Way 1 = ₹20 + ₹10 + ₹5

Way 2 = ₹20 + ₹5 + ₹5 + ₹5

b. Cost of lunch Box = ₹95

Way 1 = ₹50 + ₹20 + ₹20 + ₹5

Way 2 = ₹20 + ₹20 + ₹20 + ₹20 + ₹10 + ₹5

c. Cost of dairy = ₹48

Way 1 = ₹20 + ₹20 + ₹5 + ₹2 + ₹1

Way 2 = ₹20 + ₹10 + ₹10 + ₹5 + ₹2 + ₹1

d. Cost of water bottle = ₹120

Way 1: ₹50 + ₹50 + ₹20

Way 2: ₹50 + ₹20 + ₹20 + ₹20 + ₹10

3. a. 42 rupees and 45 paise = ₹42.45

b. 103 rupees and 65 paise = ₹103.65

4. a. ₹12 = 1200p

b. ₹35.65 = ₹35 + 65p = $35 \times 100 + 65 = 3500 + 65 = 3565p$

c. ₹25.45 = ₹25 + 45p = $25 \times 100 + 45 = 2500 + 45 = 2545p$

d. ₹99.80 = ₹99 + 80p = $99 \times 100 + 80 = 9900 + 80 = 9980p$

e. ₹63.35 = ₹63 + 35p = $63 \times 100 + 35 = 6300 + 35 = 6335p$

f. ₹20.20 = ₹20 + 20p = $20 \times 100 + 20 = 2000 + 20 = 2020p$

5. a. $800p = ₹8.00 = ₹8$ b. $1800p = ₹18.00 = ₹18$

c. $4005p = ₹45.05$ d. $3945p = ₹39.45$

e. $8440p = ₹84.40$ f. $2535p = ₹25.35$

6. a. 2345 paise = 23 rupees 45 paise

b. 6569 paise = 65 rupees 69 paise

c. 4905 paise = 49 rupees 5 paise

d. 8394 paise = 83 rupees 94 paise

Exercise 13B

$$\begin{array}{r} \text{a.} \quad \begin{array}{r} \text{₹} \quad 1 \quad 6 \quad 2 \\ + \quad \text{₹} \quad 4 \quad 2 \quad 0 \\ \hline \text{₹} \quad 5 \quad 8 \quad 2 \end{array} \end{array}$$

$$\begin{array}{r} \text{b.} \quad \begin{array}{r} \text{₹} \quad 7 \quad 3 \quad 4 \\ + \quad \text{₹} \quad 2 \quad 1 \quad 4 \\ \hline \text{₹} \quad 9 \quad 4 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{c.} \quad \begin{array}{r} \text{₹} \quad 3 \quad 0 \quad 4 \\ + \quad \text{₹} \quad 4 \quad 9 \quad 6 \\ \hline \text{₹} \quad 8 \quad 0 \quad 0 \end{array} \end{array}$$

$$\begin{array}{r} \text{d.} \quad \begin{array}{r} \text{₹} \quad 1 \quad 3 \quad 2 \\ + \quad \text{₹} \quad 2 \quad 4 \quad 2 \\ \hline \text{₹} \quad 3 \quad 7 \quad 4 \end{array} \end{array}$$

$$\begin{array}{r} \text{2. a.} \quad \begin{array}{r} \text{₹} \quad 8 \quad 3 \\ - \quad \text{₹} \quad 4 \quad 8 \\ \hline \text{₹} \quad 3 \quad 5 \end{array} \end{array}$$

$$\begin{array}{r} \text{b.} \quad \begin{array}{r} \text{₹} \quad 6 \quad 9 \\ - \quad \text{₹} \quad 5 \quad 1 \\ \hline \text{₹} \quad 1 \quad 8 \end{array} \end{array}$$

$$\begin{array}{r} \text{c.} \quad \begin{array}{r} \text{₹} \quad 7 \quad 4 \\ - \quad \text{₹} \quad 7 \quad 1 \\ \hline \text{₹} \quad 3 \end{array} \end{array}$$

$$\begin{array}{r} \text{d.} \quad \begin{array}{r} \text{₹} \quad 2 \quad 3 \quad 2 \\ - \quad \text{₹} \quad 1 \quad 9 \quad 6 \\ \hline \text{₹} \quad 3 \quad 6 \end{array} \end{array}$$

4. a. Money received by mohan from his father = ₹60

Money received by him from her mother = ₹120

Total money received = Money from father + Money from mother = ₹60 + ₹120 = ₹180

Thus, Mohan received ₹180 in all.

b. Cost of milk = ₹55

Cost of biscuits = ₹20

Cost of butter = ₹25

Total spending = Cost of milk + Cost of biscuits + Cost of butter

= ₹55 + ₹20 + ₹25 = ₹100

Thus, she spent ₹100 altogether.

c. Initial amount Pankaj had = ₹400

Amount spent on lunch = ₹150

Remaining amount = Initial amount – Amount spent = ₹400 – ₹150 = ₹250

Thus, Pankaj has ₹250 now.

d. Total price of the item = ₹300

Amount the boy has = ₹225

Additional money needed = Total price – Amount he has = ₹300 – ₹225 = ₹75

Therefore, the boy needs ₹75 more to buy the item.

e. Initial amount Rishi has = ₹480

Cost of the item = ₹432

Remaining amount = Initial amount – Cost of item = ₹480 – ₹432 = ₹48.

Thus, Rishi has ₹48 now.

Learning Logs

1. a. One rupee coin = two coins of 50 paise together.

b. Four coins of fifty paise together = 2 rupees coin.

c. Five coins of one rupee together = one 5 rupee coin.

2. a. ₹89.60 = ₹89 + 60 paise = 89 rupees 60 paise.

b. ₹19.75 = ₹19 + 75 paise = 19 rupees 75 paise.



- c. ₹0.55 = 55 paise
d. ₹10.00 = ₹10 = 10 rupees
3. a. 750p = ₹7.50 b. ₹4080p = ₹40.80
c. 1985p = ₹19.85 d. 3007 p = ₹30.07
4. Rani has ₹250, so she can buy:
Backpack (₹250); kettle, and Football (₹200)
She cannot buy the suitcase (₹800 is more than ₹250), T-shirt (₹350 is more than ₹250).
So, she can buy Backpack, football, and kettle.
5. a. Cost for buying speakers for his son = ₹93
Cost for buying speakers for his daughter = ₹85
Total spending = ₹93 + ₹85 = ₹178.
Thus, Mayank spent ₹178 on buying sparklers.
- b. Total earning of a family = ₹27,689
Total spending of a family = ₹4889
Saving = Earning – Spending
= ₹27,689 – ₹4889 = ₹22,800.

Mental Maths

1. 8 rupees 35 paise = ₹8.35 = 835 paise
So, the correct option is (c).
2. Correct option is (c).
3. ₹10 = 1000 paise = 20 × 50 paise
Twenty 50-paise coins make a total of 10-rupee coin.
So, the correct option is (b).
4. Cost of a pencil = ₹5
Cost of 6 pencils = 6 × 5 = ₹30
Cost of a poster = ₹12
Cost of 5 posters = 5 × 12 = ₹60
Total cost = cost of 6 pencils + cost of 5 posters
= ₹30 + ₹60 = ₹90
So, the correct option is (c).

HOTS

1. Take the number of ₹200 notes and ₹100 notes as the same.
Total amount from ₹200 notes = 5 × 200 = ₹1000
Total amount from ₹100 notes = 5 × 100 = ₹500
Total money = ₹1000 + ₹500 = ₹1500
Number of ₹200 notes = 5
Number of ₹100 notes = 5
2. Cost of three burgers = ₹150
Cost of one burger = ₹150 ÷ 3 = ₹50
Cost of 2 fries and 1 burger = ₹100
Cost of 2 fries = ₹100 – ₹50 = ₹50

- Cost of 1 fries = ₹50 ÷ 2 = ₹25
Cost of 1 drink, 1 fries and 1 burger = ₹120
Cost of 1 drink = ₹120 – ₹25 – ₹50 = ₹45
Cost of 3 drinks = ₹45 × 3 = ₹135
3. a. Cost of two bars = ₹70
Cost of 1 bar = ₹70 ÷ 2 = ₹35
Cost of five bar = ₹150 ÷ 5 = ₹30
Set of 5 bars of soaps is cheaper as ₹30 < ₹35.
- b. Cost of 4 lollipops = ₹10
Cost of 1 lollipops = ₹10 ÷ 4 = ₹2.5
Cost of 10 lollipops = ₹20
Cost of 1 lollipop = ₹20 ÷ 10 = ₹2
Therefore, set of 10 lollipops is cheaper as ₹2.5 < ₹2.

CHAPTER 14: MONEY

Warm Up

1. a. Captain of team 1 = Paddlefish;
Letter count = 10
b. Captain of team 1 = Eel;
Letter count = 3
2. Animal names that start with the letter 'S':
Seahorse, Shark, Sea Turtle, Starfish, Seal, Sea Lion. There are six animal names that start with the letter 'S'.
3. There is one animal name that starts with a vowel is Oyster.

Exercise 14A

1.

Flowers	No. of Flowers
 Rose	12
 Marigold	14
 Jasmine	6
 Sunflower	8

 Lotus	3
 Lily	6

- There are six types of flowers shown in the drawing.
- The flower with the highest number is Marigold.
- The flower with the least number is Lotus.
- Jasmine and Lily have the same number of flowers.
- Total number of flowers = $12 + 14 + 6 + 8 + 3 + 6 = 49$.

2.

Soft Drinks	Number of Bottles	Tally marks
Cola	25	
Lemon	30	
Jeera	10	
Mint	15	
Orange	30	

Exercise 14B

1.

Animal	Number of animals (Each  represents 1 animal)
Giraffe	  
Lion	   
Elephant	     
Deer	         
Monkey	        

- Each symbol stands for 1 student.
- There are 6  in the Hurdle Race, each  representing 1 student.
So, 6 students took part in the Hurdle Race.
- The maximum number of students participate in the Relay Race.
- The minimum number of students participate in the Long Jump.
- Four students took part in the High Jump.

f. $7 + 4 + 6 + 2 + 4 = 23$.

So, 23 students altogether participated in all events.

- From the given pictograph, Cartoons is the most popular TV programme.
 - $7 + 6 + 4 + 4 = 21$.
So, Amit asked 21 children in total.
 - Sports and Knowledge are equally popular TV programme.

Learning Logs

1.

Student names	Number of Candles	Tally marks
Saket	3	
Saransh	1	
Neha	6	
Neetu	3	
Archana	7	

- Archana brought the maximum number of candles, which is 7.
 - Neha brought 6 candles.
 - Saket and Neetu both brought 3 candles each.
 - Saransh brought the least number of candles, which is 1.
- 2.
- Each star symbol represents 2 students.
 - The pictograph represents the number of students in Class 3 who like different desserts.
 - Ice-cream is the most popular dessert (7 stars = 14 students).
 - Kheer is the least popular dessert (2 stars = 4 students).
 - Number of students whose favourite dessert is Ice-cream: $7 \times 2 = 14$ students
Number of students whose favourite dessert is Chocolate: $5 \times 2 = 10$ students
Number of students whose favourite dessert is Halwa: $3 \times 2 = 6$ students
Number of students whose favourite dessert is Kheer: $2 \times 2 = 4$ students
Number of students whose favourite dessert is Ladoo: $4 \times 2 = 8$ students
Number of students whose favourite dessert is Barfi: $5 \times 2 = 10$ students
Total students = $14 + 10 + 6 + 4 + 8 + 10 = 52$ students



3. Each square represents 2 students.

Colour	Number of squares	Number of students
Red	4	$4 \times 2 = 8$
Blue	7	$7 \times 2 = 14$
Green	5	$5 \times 2 = 10$
Brown	3	$3 \times 2 = 6$
Yellow	2	$2 \times 2 = 4$
Pink	7	$7 \times 2 = 14$

- a. 8 students like the red colour.
 b. 14 students like the blue colour.
 c. Blue is the favourite colour of maximum students.
 d. Number of students who liked Green colour
 $= 5 \times 2 = 10$
 Number of students who liked Brown colour
 $= 3 \times 2 = 6$
 Difference $= 10 - 6 = 4$ students

4.

Day	No. of toys (Each  represent 2 toys)
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

HOTS

1. Checking numbers near 80:
 $78 \rightarrow$ Seventy Eight $\rightarrow$ Seventy(7), Eight(5)
 $79 \rightarrow$ Seventy Nine $\rightarrow$ Seventy(7), Nine(4)
 $80 \rightarrow$ Eighty $\rightarrow$ Eighty(6)
 Only 79 fits the clue.
 2. Sixty has least number of letters amongst all numbers 51 to 69.

MODEL TEST PAPER – 2

1. Sequence increases by 3 each time: $3 \rightarrow 6 \rightarrow 9 \rightarrow 12 \rightarrow 15$
 So, the correct option is (c).
 2. Year of birth $= 2025 - 8 = 2017$
 So, the correct option is (c).

3. Minute hand on 6 = 30 minutes; Hour hand between 2 and 3 $\rightarrow$ 2:30
 So, the correct option is (a).
 4. Pencil is short $\rightarrow$ measured in centimetres.
 So, the correct option is (c).
 5. Long length $\rightarrow$ measuring tape is suitable to measure the length of room.
 So, the correct option is (b).
 6. 1 metre = 100 cm
 So, the correct option is (b).
 7. 1 kg is heaviest among the given weights.
 So, the correct option is (c).
 8. $1\text{ kg} = 1000\text{g}$, $2\text{ kg} = 2 \times 1000\text{g} = 2000\text{g}$
 So, the correct option is (c).
 9. 3:30 = Half past three
 So, the correct option is (b).
 10. Pictograph uses pictures or symbols to represent data
 So, the correct option is (a).
 11. a. I wake up at 7:00 a.m.
 b. I take 5 minutes to brush my teeth. Now, the time is 7:05 a.m.
 c. I take 10 minutes to have a shower. Now, the time is 7:15 a.m.
 d. I take 20 minutes to eat my lunch. Now, the time is 7:35 a.m.
 e. I leave for my friend's house 10 minutes after having lunch. The time is 7:45 a.m.
 f. It takes me 15 minutes to reach the friend's home. The time is 8:00 a.m.

12. a. The sequence repeats every three shapes.

Next three shapes are   

- b. The sequence repeats with attenuate upward and downward arrows.

Next three arrows are $\uparrow \downarrow \uparrow$

- c. The pattern increases by 5 each time.

Next three numbers are $28 + 5 = 33$; $33 + 5 = 38$; $38 + 5 = 43$

- d. The pattern increases by 9 each time.

Next three numbers are $54 + 9 = 63$; $63 + 9 = 72$; $72 + 9 = 81$

13. a. $5\text{ m} = 5 \times 100\text{ cm} = 500\text{ cm}$

- b. $6\text{ m } 16\text{ cm} = 6 \times 100 + 16 = 600 + 16 = 616\text{ cm}$

- c. $5 \text{ km} = 5 \times 1000 = 5000 \text{ m}$
 d. $7000 \text{ mg} = 7 \text{ g}$
 e. $5859 \text{ m} = 5000 \text{ m} + 859 \text{ m} = 5 \text{ km } 859 \text{ m}$
 f. $6 \text{ kg} = 6 \times 1000 \text{ g}$
 g. $6500 \text{ g} = 6000 \text{ g} + 500 \text{ g} = 6 \text{ kg } 500 \text{ g}$
 h. $7 \text{ L} = 7000 \text{ mL}$
 i. $9 \text{ L } 45 \text{ mL} = 9000 \text{ mL} + 45 \text{ mL} = 9045 \text{ mL}$
 j. $7004 \text{ mL} = 7000 \text{ mL} + 4 \text{ mL} = 7 \text{ L } 4 \text{ mL}$

14. Front → , Side → , Top → 

15. a. 
 8:10
 10 minutes past 8

b. 
 12:15
 Quarter past 12

c. 
 9:45
 Quarter to 10

d. 
 6:50
 10 minutes to 7

16. Duration of movie is 2 hours 35 minutes.
 Duration in minutes = $(2 \times 60 + 35)$ minutes
 = 155 minutes.

17. Scheduled departure = 8:15 p.m.
 Arrived at bus stand = 7:30 p.m.
 Difference = 8:15 p.m. – 7:30 p.m. = 45 minutes
 Thus, we reached 45 minutes early.

18. a. ₹6 = 600 p
 b. ₹60.10 = $60 \times 100 + 10 = 6010 \text{ p}$
 c. 7005 p = ₹70.05
 d. There are hundred ₹10 notes in ₹1000.
 e. There are ten ₹5 coins in ₹50.
19. Expenditure on: Cake → ₹204, Balloons → ₹28, Stickers → ₹55
 Total expenditure = ₹204 + ₹28 + ₹55 = ₹287
 Amount given to shopkeeper = ₹500
 Change = ₹500 – ₹287 = ₹213
 Thus, Garima gets back ₹213.

20.

Sports	Number of Students
Cricket	         
Hockey	      
Football	       
Badminton	         
Chess	     
Key:  = 2 students	

