1. Revision

1. (a) 770 = Seven hundred seventy
(b) 115 = One hundred fifteen
(c) 214 = Two hundred fourteen
(d) 357 = Three hundred fifty-seven

2. (a) 257 (b) 344 (c) 458 (d) 526

3. (a) 649 (b) 774 (c) 401 (d) 208

4. (a) 223 — 200 + 20 + 3 (b) 469 — 400 + 60 + 9
(c) 359 — 300 + 50 + 9 (d) 508 — 500 + 8
(e) 405 — 400 + 5 (f) 669 — 600 + 60 + 9

5. (a) 850 (b) 269 (c) 362 (d) 407

6. (a) 100 + 20 + 5 = 125 (b) 200 + 00 + 3 = 203
(c) 300 + 0 + 9 = 309 (d) 500 + 30 + 0 = 530
(e) 600 + 40 + 8 = 648 (f) 200 + 60 + 5 = 265

7. (a) 10 (b) 100 (c) 99 (d) 999

8. (a) 880 > 808 (b) 265 < 562
(c) 385 = 385 (d) 446 < 464
(e) 565 = 565 (f) 897 < 987

9. (a) 312, 321, 591, 595, 618 (b) 202, 499, 512, 543, 546
(c) 119, 120, 280, 309, 390 (d) 206, 267, 277, 527, 572

10. (a) 647, 645, 558, 548, 540 (b) 681, 516, 309, 300, 212
(c) 861, 816, 618, 515, 514 (d) 598, 596, 529, 520, 250

11.

	Face Value	Place Value
(a)	5	500
(b)	4	400
(c)	2	200
(d)	9	900

12. (a) 128, 821, 218 (b) 781, 187, 871 (c) 525, 552, 255

13.

	Smallest Number	Greatest Number
(a)	501	551
(b)	278	872
(c)	244	442

14.

	Smallest Number	Greatest Number
(a)	165	651
(b)	357	735
(c)	235	533
(d)	709	987

15. (a) $\overset{\textcircled{1}\textcircled{1}}{175} + 268 = 443$ (b) $\overset{\textcircled{1}\textcircled{1}}{65} + 288 = 353$ (c) $\overset{\textcircled{1}}{48} + 144 = 192$ (d) $189 + 10 = 199$

16. (a) $437 + 121 = 558$ (b) $\overset{\textcircled{1}\textcircled{1}}{396} + 178 = 574$ (c) $\overset{\textcircled{1}}{490} + 980 = 1470$ (d) $\overset{\textcircled{1}}{809} + 416 = 1225$

17. (a) $\overset{\textcircled{7}\textcircled{12}}{\cancel{8}\cancel{2}9} - 247 = 582$ (b) $\overset{\textcircled{2}\textcircled{9}\textcircled{12}}{\cancel{3}\cancel{0}2} - 144 = 158$ (c) $246 - 104 = 142$ (d) $616 - 405 = 211$

18. (a) $\overset{\textcircled{2}\textcircled{16}}{\cancel{3}\cancel{6}8} - 184 = 184$ (b) $591 - 190 = 401$ (c) $\overset{\textcircled{3}\textcircled{13}}{\cancel{4}\cancel{2}8} - 185 = 253$ (d) $\overset{\textcircled{8}\textcircled{12}}{\cancel{9}\cancel{2}9} - 465 = 464$

(e) $\overset{\textcircled{5}\textcircled{17}}{\cancel{6}\cancel{7}9} - 483 = 196$ (f) $\overset{\textcircled{1}\textcircled{15}}{\cancel{2}\cancel{5}7} - 163 = 094$

19. (a) $\overset{\textcircled{4}}{48} \times 5 = 240$ (b) $\overset{\textcircled{3}}{69} \times 4 = 276$ (c) $212 \times 4 = 848$ (d) $\overset{\textcircled{2}\textcircled{2}}{145} \times 5 = 725$

20. (a) $\overset{①}{86} \times 2 = 172$ (b) $\overset{③}{28} \times 4 = 112$ (c) $\overset{⑧}{99} \times 9 = 891$ (d) $\overset{⑦}{78} \times 9 = 702$

21. (a) $\overset{①}{12} \times 5 = \mathbf{60}$ (b) $\overset{③}{16} \times 6 = \mathbf{96}$ (c) $\overset{②}{14} \times \mathbf{5} = 70$ (d) $\overset{②}{13} \times \mathbf{9} = 117$

22. (a) $3\overline{)27}\,(9$, $27 - 27 = 0$, $Q = 9, R = 0$ (b) $5\overline{)45}\,(9$, $45 - 45 = 0$, $Q = 9, R = 0$ (c) $9\overline{)81}\,(9$, $81 - 81 = 0$, $Q = 9, R = 0$ (d) $3\overline{)12}\,(4$, $12 - 12 = 0$, $Q = 4, R = 0$

(e) $7\overline{)56}\,(8$, $56 - 56 = 0$, $Q = 8, R = 0$ (f) $6\overline{)36}\,(6$, $36 - 36 = 0$, $Q = 6, R = 0$

23. (a) $9\overline{)36}\,(4$, $36 - 36 = 0$, $Q = 4$ (b) $8\overline{)56}\,(7$, $56 - 56 = 0$, $Q = 7$ (c) $5\overline{)45}\,(9$, $45 - 45 = 0$, $Q = 9$ (d) $9\overline{)63}\,(7$, $63 - 63 = 0$, $Q = 7$

24. Weight of one wheat bag = 61 kg

Weight of other wheat bag = 50 kg 243 g

∴ Total weight of wheat = 111 kg 243 g

	61 kg	000 g
+	50 kg	243 g
	111 kg	243 g

25. A man bought sweets = $\overset{④⑩}{8}$ kg 500 g

He distributed sweets = − 4 kg 250 g

∴ Sweets left with him = 4 kg 250 g

26. Ambika made laddoos = 48

She made 6 laddoos in 1 minute

She take time to make all laddoos = 48 ÷ 6 = 8 laddoos

$6\overline{)48}\,(8$, $48 - 48 = 0$

27. Milkman sells milk in the morning and evening

$= 45 + 64 = 109$ litres

$\therefore$ Milkman sell milk in one day = 109 litres

He sell milk in a week $= 109 \times 7 = 763$ litres

28.

Nishant have base ball cards	=	②① 240
Rajiv have base ball cards	=	568
Akash have base ball cards	=	+ 192
		1000

$\therefore$ Total cards = 1000

2. Four-Digit Numbers

Exercise 2.1

1. See in the answer sheet

Exercise 2.2

1. and **2.** See in the answer sheet

3. (a) 1008 — 1009, 1010, 1011, 1012

(b) 3097 — 3098, 3099, 3100, 3101

(c) 4996 — 4997, 4998, 4999, 5000

(d) 6667 — 6668, 6669, 6670, 6671

4. (a) 5430 — 5429, 5428, 5427, 5426

(b) 4200 — 4199, 4198, 4197, 4196

(c) 3000 — 2999, 2998, 2997, 2996

(d) 9701 — 9700, 9699, 9698, 9697

Exercise 2.3

1. (a) Value of 3 at ones place = 3 ones = 3

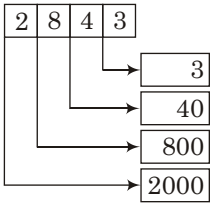
Value of 4 at tens place = 4 tens = 4

Value of 8 at hundreds place

= 8 hundreds = 800

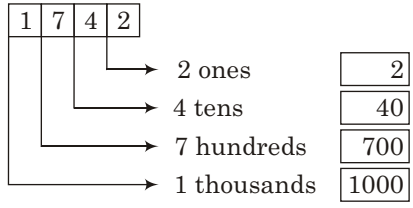
Value of 2 at thousands place

= 2 thousands = 2000

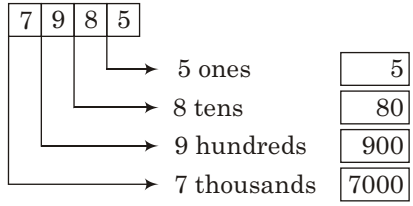


Similarly,

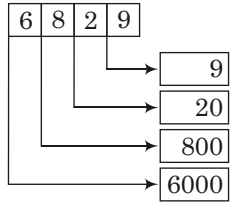
(b)



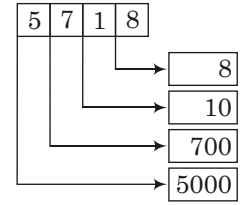
(c)



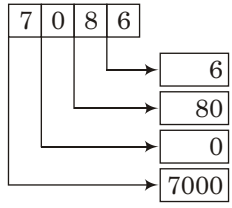
2. (a)



(b)



(c)



3. (a) $4730 = 4000 + 700 + 30$

(b) $5305 = 5000 + 300 + 5$

(c) $3006 = 3000 + 6$

(d) $5089 = 5000 + 80 + 9$

4. (a) $6000 + 200 + 30 + 7 = 6237$

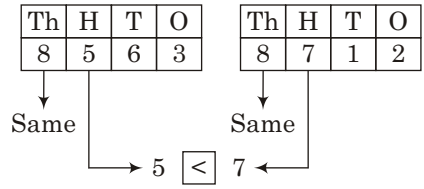
(b) $5000 + 50 + 8 = 5058$

(c) $8000 + 800 + 70 = 8870$

(d) $7000 + 6 = 7006$

Exercise 2.4

1. (a) Both the numbers are of four digit numbers, so we compare their digits.



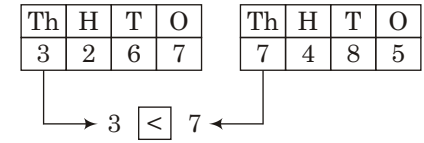
So, 8563 < 8712

(b) 1168 has four digits while 983 has only three digits.

We know that the number four digits in always greater than the number with three digits.

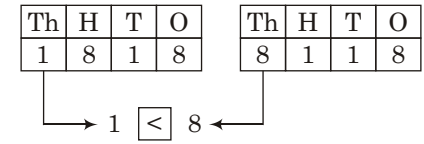
So, 1168 > 983

(c) Both the numbers are of four digits, so we compare their digits.



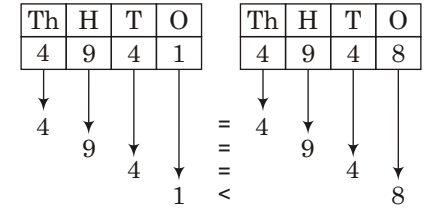
So, 3267 < 7485

(d) Both the numbers are of four digit numbers, so we compare their digits.



So, 1818 < 8118

(e) Both the numbers are of four digits numbers, so we compare their digits.



So, 4941 < 4948

(f) Both the numbers are of four digit numbers, so we compare their digits.

Th	H	T	O
7	0	3	2

Th	H	T	O
6	8	5	2

$7 > 6$

So, $7032 < 6852$

2. (a) All the numbers have four digits, so we compare them by arranging them in columns.

Th	H	T	O
2	0	6	3
3	2	2	2
3	0	0	2

So, **2063** is the smallest number.

Th	H	T	O
3	2	2	2
3	0	0	2

Same, $2 > 0$

So, **3222** is the greatest number.

(b) All the numbers have four digits, so we compare them by arranging them in columns.

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

$\therefore \quad 6 > 5 >$

So, 6390 is the greatest number and 2398 is the smallest number.

(c) All the numbers have four digits, so we compare them by arranging them in columns.

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

$7 > 6 > 4$

So, 7001 is the greatest number and 4475 is the smallest number.

(d) All the numbers have four digits, so we compare them by arranging them in columns.

Th	H	T	O
4	9	7	7
7	4	9	0
4	7	9	2

$\rightarrow 4 > 7$

So, **7490** is the greatest number.

Th	H	T	O
4	9	7	7
4	7	9	2

Same $\rightarrow 9 > 7$ or

So, **4792** is the smallest number.

Exercise 2.5

1. (a) $298 < 3285 < 3469 < 4061$ (b) $1189 < 1289 < 1892 < 1982$

(c) $999 < 9099 < 9909 < 9990$ (d) $6143 < 6314 < 6341 < 6431$

2. (a) $7649 > 7549 > 7496 > 7459$ (b) $8291 > 8192 > 8129 > 8091$

(c) $1321 > 1312 > 1213 > 1123$ (d) $5619 > 5032 > 4807 > 4523$

3. (a) 698 **699** 700 (b) 4039 **4040** 4041

(c) 1287 **1288** 1289 (d) 8500 **8501** 8502

4. (a) Predecessor = 889 – 1 = 888 Successor = 889 + 1 = 890

(b) Predecessor = 2341 – 1 = 2340 Successor = 2341 + 1 = 2342

(c) Predecessor = 7038 – 1 = 7037 Successor = 7038 + 1 = 7039

(d) Predecessor = 9000 – 1 = 8999 Successor = 9000 + 1 = 9001

Exercise 2.6

1. (a) For largest number we arrange the digits in descending order = **8521**

For smallest number we arrange the digits in ascending order = **1258**

(b) For largest number we arrange the digits in descending order = **9740**

For smallest number we arrange the digits in ascending order but we can not place zero at thousands place so smallest number = **4079**

(c) For largest number we arrange the digits in descending order = **8320**

For smallest number we arrange the digits in ascending order but we can not place zero at thousands place so smallest number = **2038**

2. (a) Smallest digits is 0, so we repeat 0 twice

So, largest possible number = **6200**

Smallest possible number = **2006**

(b) Smallest digit is 1, so we repeat 1 twice

So, largest possible number = **9611**

Smallest possible number = **1169**

(c) Smallest digit is 0, so we repeat 0 twice

So, largest possible number = **9800**

Smallest possible number = **8009**

3. (a) 7605, 6705, 7065, 6075, 7560, 5760, 6570 and more

(b) 3956, 3659, 3596, 9356, 6359, 5369 and more

(c) 4871, 1874, 1847, 4817, 7841, 7814 and more

4. (a) **94** is rounded off nearest to 10 is 90 since the digit at the ones place is 4 which is less than 5.

(b) **89** is rounded off nearest to 10 is 90 since the digit at the ones place is 9 which is more than 5.

(c) **126** is rounded off nearest to 10 is 130 since the digit at the ones place is 6 which is more than 5.

(d) **425** is rounded off nearest to 10 is 430 since the digit at the ones place is 5 which is equal to 5.

5. (a) **753** is rounded off nearest to 100 is 800 because the digit at the tens place is 5 which is equal to 5.

(b) **385** is rounded off nearest to 100 is **400** because the digit at the tens place is 8 which is more than 5.

(c) **1245** is rounded off nearest to 100 is **1200** because the digit at the tens place is 4 which is less than 5.

(d) **2964** is rounded off nearest to 100 is **3000** because the digit at the tens place is 6 which is more than 5.

6. (a) **5600** is rounded off nearest to 1000 is **6000** because the digit at the tens place is 6 which is more than 5.

(b) **4389** is rounded off nearest to 1000 is **4000** because the digit at the hundreds place is 3 which is less than 5.

(c) **6320** is rounded off nearest to 1000 is **6000** because the digit at the hundreds place is 3 which is less than 5.

(d) **7654** is rounded off nearest to 1000 is **8000** because the digit at the hundreds place is 6 which is more than 5.

Check Yourself

1. and **2.** As per answer sheet.

3.

(a)	5 more than 2086	(i) 8869	[8879 – 10]
(b)	1 less than 4000	(ii) 8785	[8685 + 100]
(c)	10 less than 8879	(iii) 2091	[2086 + 5]
(d)	100 more than 8685	(iv) 3999	[4000 – 1]

4. (a) (iv) Thousands

Th	H	T	O
③	4	2	7

(b) (iii) 500

2	⑤	8	9

9
80
500
2000

(c) (iii) 9999

(d) (viii) 8088 ⟶ 8000 + 80 + 8 = 8088

(e) (i) 5503 ⟶ 5000 + 5000 + 0 + 3 = 5503

3. Roman Numerals

1.

2 = 1 + 1 = II	3 = 1 + 1 + 1 = III
6 = 5 + 1 = VI	4 = 5 – 1 = IV
8 = 5 + 1 + 1 + 1 = VIII	10 = X
9 = 10 – 1 = IX	12 = 10 + 2 = XII
14 = 10 + 4 = XIV	15 = 10 + 5 = XV
17 = 10 + 5 + 2 = XVII	18 = 10 + 5 + 3 = XVIII

21 = 10 + 10 + 1 = XXI
24 = 10 + 10 + (5 – 1) = XXIV
28 = 10 + 10 + 5 + 3 = XXVIII
29 = 10 + 10 + 9 = XXIX
31 = 10 + 10 + 10 + 1 = XXXI
30 = 10 + 10 + 10 = XXX
33 = 10 + 10 + 10 + 3 = XXXIII
34 = 10 + 10 + 10 + (5 – 1) = XXXIV
38 = 10 + 10 + 10 + 5 + 3 = XXXVIII
39 = 10 + 10 + 10 + 9 = XXXIX

2. II = 1 + 1 = 2
IV = (5 – 1) = 4
VII = 5 + 1 + 1 = 7
X = 10
XV = 10 + 5 = 15
IX = 10 – 1 = 9
XIII = 10 + 3 = 13
XVI = 10 + 5 + 1 = 16
XX = 10 + 10 = 20
XIX = 10 + 9 = 19
XXI = 10 + 10 + 1 = 21
XXXI = 10 + 10 + 10 + 1 = 31
XXIX = 10 + 10 + 9 = 29
XXIV = 10 + 10 + 4 = 24
XXXV = 10 + 10 + 10 + 5 = 35
XXXII = 10 + 10 + 10 + 2 = 32
XXX = 10 + 10 + 10 = 30
XXXIV = 10 + 10 + 10 + (5 – 1) = 34
XXXIII = 10 + 10 + 10 + 3 = 33
XXVIII = 10 + 10 + 5 + 3 = 28
XXXVIII = 10 + 10 + 10 + 5 + 3 = 38

3. (b) **IXVII** because the combination includes I on both side of XV which is not possible.

(c) **VV** because V, L and D can not be repeated in the single combination.

(e) **VX** because V can not be at left side of X.

(g) **XIIV** because II can not be in middle of X and V.

(h) **XIIII** because I can not be repeated four times in the single combination.

4. (a) 9 = 10 – 1 = IX ✓

(b) 4 = 5 – 1 = IV ✓

(c) 6 = 5 + 1 = VI ✓

(d) 19 = 10 + 10 – 1 = XIX ✓

(e) 34 = 10 + 10 + 10 + (5 – 1) = XXXIV ✓

5. (a) XIX = 10 + (10 – 1) = 19, which is greater than 10.
So, 10 $\boxed{<}$ XIX

(b) XX = 10 + 10 = 20, which is greater than 10.
So, XX $\boxed{>}$ 10

(c) XV = 10 + 5 = 15, which is equal to 15.
So, XV $\boxed{=}$ 15

(d) XVII = 10 + 5 + 1 + 1 = 17, which is greater than 16.
So, 16 $\boxed{<}$ XVII

(e) II = 1 + 1 = 2, which is equal to 1 + 1 = 2
So, 1 + 1 $\boxed{=}$ II

(f) XVI = 10 + 5 + 1 = 16, which is greater than 10 + 4.
So, 10 + 4 $\boxed{<}$ XVI

6. (a) 3 + 10 = 13 = XIII (b) 5 + 2 = 7 = VII
(c) 10 – 2 = 8 = VIII (d) 10 + 5 = 15 = XV
(e) 6 + 7 + 7 = 20 = XX (f) 24 – 2 – 4 = 18 = XVIII

7. (a) XI + XI = 11 + 11 = 22 = XXII
(b) VI + IV = 6 + 4 = 10 = X
(c) VII + XVIII = 7 + 18 = 25 = XXV
(d) XI – V = 11 – 5 = 6 = VI
(e) XXX = 10 + 10 + 10 = 30 = XXX

8. (a) IV = 4, VIII = 8, V = 5, VI = 6, VII = 7
So ascending order of 4, 8, 5, 6 and 7 is
4, 5, 6, 7, 8
Now changing numbers to roman numerals again
IV, V, VI, VII, VIII

(b) XI = 11, XV = 15, XVI = 16, XIV = 14, XX = 20
So, ascending order of 11, 15, 16, 14, 20 is
11, 14, 15, 16, 20
Now changing numbers to roman numerals again
XI, XIV, XV, XVI, XX

9. (a) II = 2, VI = 6, III = 3, VI = 4, VII = 7

So, descending order of 2, 6, 3, 4, 7 is

7, 6, 4, 3, 2

Now changing numbers to roman numerals again

VII, VI, IV, III, II

(b) IX = 9, XI = 11, X = 10, XIV = 14, XV = 15

So, descending order of 9, 11, 10, 14, 15

15, 14, 11, 10, 9

Now changing numbers to roman numerals again

XV, XIV, XI, X, IX

10. (a) The hour hand is at 4 and minute hand is at 12.

So, time is 4 : 00.

(b) The hour hand is at 11 and minute hand is at 12.

So, time is 11 : 00.

(c) The hour hand is in between 4 and 5 and the minute hand is at 3.

So, time is 4 : 15.

(d) The hour hand is in between 8 and 9 and the minute hand is at 10.

So, time is 9 : 50.

11. (a)  (b)  (c) 

Check Yourself

1. (a) VI = 5 + 1 = 6 (b) IX = 10 − 1 = 9

(c) XV = 10 + 5 = 15 (d) XXXIV = 30 + 4 = 34

2. As per answer sheet

3. (a) XXXI = 10 + 10 + 10 + 1
= 31
So, (iii)

(b) XLVI = (50 − 10) + 5 + 1
= 40 + 6 = 46
So, (iv)

(c) XXXV = 10 + 10 + 10 + 5 = 35
So, (i)

(d) L = 50
So, (ii)

4. (a) (iv), only XXV make sense among all the options.

(b) (iii), 25 + 13 = 38 = XXXVIII

(c) (iii), XIX – IX = 19 – 9 = 10 = X

(d) (ii), XV + VI = 15 + 6 = 21 = XXI

4. Addition

Exercise 4.1

1. (a) First add the ones 5 + 4 = 9
Then add the tens 2 + 1 = 3

	T	O
	2	5
+	1	4
	3	9

Similarly,

(b)

	T	O
	2	3
+	4	2
	6	5

(c)

	T	O
	9	1
+		7
	9	8

(d)

	T	O
	8	2
+	1	7
	9	9

2. (a) 1. Add the ones 9 + 1 = 10 ones = 1 ten + 0 ones.
We have regrouped the ones into ten and ones.
2. Add the tens 4 + 2 + 1 (carried over) = 7
3. Add the hundreds 1 + 2 = 3 hundreds.

	H	T	O
		①	
	4		9
+	2	2	1
	3	7	0

(b) 1. Add the ones 2 + 9 = 11 ones = 1 ten + 1 ones.
We have regrouped the ones into tens and ones.
2. Add the tens 6 + 3 + 1 (carried over) 10 = 1 hundred + 0 tens

	H	T	O
		① ①	
	6		2
+	1	3	9
	9	0	1

[We have regrouped the tens into hundred and tens.]

3. Add the hundreds 7 + 1 + 1 (carried over) = 9 hundreds.

Similarly,

(c)

	H	T	O
	① 5	5	3
+	2	5	5
	8	0	8

(d)

	H	T	O
	3 1		
	0 3		1
+	1	3	0
	5	3	4

3. (a) Arrange the digits of the given numbers in columns of hundreds, tens and ones. Then add column wise.

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

1. Add the ones 9 + 8 + 9 = 26 ones = 2 ten + 6 ones. Write 6 under 'O' and carry over 2 to the tens place.
2. Add the tens 1 + 4 + 8 + 2 (carried over) = 15 = 1 hundred + 5 tens.

   Write 5 under tens and carry over 1 to the hundreds place.
3. Add the hundreds 4 + 2 + 1 (carried over) = 7

   Write 7 under the hundreds.

(b)

	H	T	O
	6	① 2	5
	2	1	6
+	1	1	2
	9	5	3

1. Add the ones 5 + 6 + 2 = 13 ones = 1 ten + 3 ones.

   Write 3 under 'O' and carry over 1 to the tens place.
2. Add the tens. 2 + 1 + 1 + 1 (carried over) = 5.

   Write 5 under tens.
3. Add the hundreds 6 + 2 + 1 = 9.

   Write 9 under the hundreds.

(c)

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

1. Add the ones 7 + 6 + 8 = 21 ones = 2 ten + 1 ones.

   Write 1 under 'O' and carry over 2 to the tens place.
2. Add the tens 2 + 6 + 2 (carried over) = 10.

   Write 0 under tens and carry over 1 to the hundreds place.
3. Add the hundreds 2 + 2 + 1 + 1 (carried over) = 6.

Similarly,

(d)

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

(e)

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

(f)

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

4. (a)

	T	O
	①	
	8	2
+		8
	9	0

(b)

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

(c)

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

(d)

	HTO	
		①
	4	7
+		
	2	8

(e)

	HTO		
	①	①	
	5	1	
	3		8
+			3
	7	1	6

(f)

	HTO		
	①	①	
	3	0	8
	2	5	1
+	1	6	7
	7	2	6

Exercise 4.2

1. (a)

	ThHTO			
	6	7	3	8
+	2	2	4	1
	8	9	7	9

1. Add the ones 8 + 1 = 9 ones. Write 9 under 'O'.
2. Add the tens 3 + 4 = 7 tens. Write 7 under 'T'.
3. Add the hundreds 7 + 2 = 9 hundreds. Write 9 under (H).
4. Add the thousands. 6 + 2 = 8 thousands. Write 8 under 'Th'.

Similarly,

(b)

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

(c)

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

(d)

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

(e)

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

(f)

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

2. (a)

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

(b)

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

(c)

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

(d)

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

3. (a)

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

(b)

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

(c)

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

(d)

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

Exercise 4.3

1. (a) 1. Add the ones. 6 + 2 = 8 ones. Write 8 under 'O'.

2. Add the tens. 6 + 8 = 14.

Write 4 under 'T' and carry 1 to the hundreds column.

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

3. Add hundreds, 7 + 4 + 1 (carried over) = 12 hundreds

Write 2 under hundreds (H) and carry over 1 to thousands column.

4. Add thousands 5 + 3 + 1 (carried over) = 9 thousands.

Write 9 under the thousands (Th).

(b) 1. Add the ones. 5 + 4 = 9 ones. Write 9 under '0'.

2. Add the tens. 2 + 8 = 10 tens = 1 hundred + 0 ten.

Write 0 under 'T' and carry over 1 to the hundreds place.

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

3. Add the hundreds. 9 + 6 + 1 (carried over) = 16 hundreds = 1 thousands + 6 hundreds.

Write 6 under 'H' and carry over 1 to the thousands column.

4. Add the thousands 3 + 1 + 1 (carried over) = 5 thousands.

Write 5 under 'Th'.

Thus, the sum is 5,609.

Similarly,

(c)

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

(d)

Th	H	T	O
	①	①	
4	2	6	4
4	0	9	5
+ 3	1	2	3
11	4	8	2

(e)

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

(f)

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

2. (a)

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

(b)

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

(c)

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

(d)

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

3. (a) 5 tens 15 ones = (5 tens + 1 ten) + 5 ones

= 6 tens + 5 ones = 65

(b) 19 tens 13 ones = (19 tens + 1 ten) + 3 ones

= 20 tens + 3 ones = 203

(c) 3 hundreds 55 ones = (3 hundreds + 5 tens) + 5 ones

= 35 hundreds + 5 ones = 355

(d) 14 hundreds 6 tens 16 ones

= (14 hundreds + 6 ten + 1 ten) + 6 ones

= 14 hundreds + 7 tens + 6 ones = 1476

(e) 13 hundreds 25 tens 19 ones

= (13 hundreds + 2 hundreds) + (5 tens + 1 ten) + 9 ones

= 15 hundreds + 6 tens + 9 ones = 1569

(f) 26 hundreds 35 tens 24 ones

= (26 hundreds + 3 hundreds) + (5 tens + 2 tens) + 4 ones

= 29 hundreds + 7 tens + 4 ones = 2974

Exercise 4.4

1. (a) 2,459 + 1,813 = 1,813 + **2,459**

(b) 4,597 + 1,591 = **1,591** + 4,597

(c) 9,251 + 123 + 111 = 111 + 9,251 + **123**

(d) 2,153 + 222 + 1,134 = 1,134 + **2,153** + 222

2. (a)

H	T	O
①	①	
2	7	1
1	2	5
+	9	8
4	9	4

H	T	O
①	①	
1	2	5
2	7	1
+	9	8
4	9	4

H	T	O
①	①	
	9	8
2	7	1
+ 1	2	5
4	9	4

The sum remains the same.

We observe that 271 + 125 + 98 = 494

We observe that 125 + 271 + 98 = 494

We observe that 98 + 271 + 125 = 494

(b)

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

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

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

The sum remains the same.

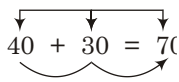
We observe that 4215 + 227 + 143 = 4585

We observe that 227 + 4215 + 143 = 4585

We observe that 143 + 227 + 4215 = 4585

3. (a) 40 + 30

***Step* 1 :** Check that the addends are in the same grouping i.e. 10s.

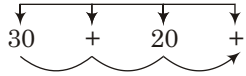


***Step* 2 :** In 40 and 30, one zero is at the right. So, we put one zero in the sum.

***Step* 3 :** Now, add the numbers, i.e., 4 + 3 = 7. So, the answer is 70.

(b) 30 + 20 + 30

Step 1 : Check that the addends are in the same grouping i.e. 10s.



Step 2 : In 30, 20 and 30, one zero is at the right. So, we put one zero in the sum.

Step 3 : Now, add the numbers, i.e., 3 + 2 + 3 = 8. So, the answer is 80.

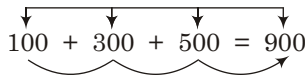
(c) 100 + 300 + 500

Step 1 : Check that the addends are in the same grouping, i.e. 100s.

Step 2 : In 100, 300 and 500 two zeroes are at the right. So, we put two zeroes in the sum.

Step 3 : Now, add the numbers i.e., 1 + 3 + 5 = 9.

So, the answer is 900.



(d) 1,000 + 5,000 + 2,000

Step 1 : Check that the addends are in the same grouping, i.e., 1000s.

Step 2 : In 1000, 5,000 and 2,000 three zeroes are at the right. So, we put three zeroes in the sum.

Step 3 : Now, add the numbers i.e., 1 + 5 + 2 = 8.

So, the answer is 8000.

Exercise 4.5

1. (a) 224, 136 and 790.

$$224 + 136 + 790 = 200 + 24 + 100 + 36 + 700 + 90$$
$$= (200 + 100 + 700) + 24 + 36 + 90$$
$$= 1000 + 150 = 1150$$

(b) 379 and 583.

$$379 + 583 = 300 + 79 + 500 + 83$$
$$= (300 + 500) + 79 + 83$$
$$= 800 + 162 = 962$$

(c) 305, 148 and 525

$305 + 148 + 525 = 300 + 5 + 100 + 48 + 500 + 25$

$= (300 + 100 + 500) + 5 + 48 + 25$

$= 900 + 78 = 978$

(d) 183 and 456

$183 + 456 = 100 + 83 + 400 + 56$

$= (100 + 400) + 83 + 56 = 500 + 139 = 639$

2. (a) $267 + 178 + 215$ (to the nearest ten)

$= 300 + 200 + 200 = 700$

[rounding off each number to the nearest 10]

(b) $364 + 496 + 110$ (to the nearest 100)

$= 300 + 500 + 100 = 900$

[rounding off each number to the nearest 100]

3. (a)
$$\begin{array}{r} {\scriptstyle ①①}\\ 436\\ +\ 267\\ \hline 703 \end{array}$$

(b)
$$\begin{array}{r} 512\\ +\ 0\\ \hline 512 \end{array}$$

(c)
$$\begin{array}{r} 601\\ +\ 100\\ \hline 701 \end{array}$$

(d)
$$\begin{array}{r} {\scriptstyle ①①}\\ 312\\ 196\\ +\ 204\\ \hline 712 \end{array}$$

(e)
$$\begin{array}{r} {\scriptstyle ①}\\ 417\\ 213\\ +\ 116\\ \hline 746 \end{array}$$

(f)
$$\begin{array}{r} {\scriptstyle ①}\\ 105\\ 200\\ +\ 108\\ \hline 413 \end{array}$$

Exercise 4.6

1.

		Th	H	T	O
Number of boys in a school	=	2	4	6	8
Number of girls in a school	=	+ 2	3	2	1
Total number of students in a school	=	4	7	8	9

∴ The total number of students in a school = 4789

2.

		Th	H	T	O
Tickets were sold on first day	=	2	6	0	8
Tickets were sold on second day	=	2	8	9	6
Tickets were sold on third day	=	+ 3	1	0	2
		8	6	0	6

∴ Total tickets were sold on third day = 8606

3. Number of Hindi books in library = 2596
Number of English books in library = 2847
Number of Mathematics books in library = 2764
∴ Total number of books in the library = 8207

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

4. Amount of a television = ₹ 3896
Amount of a washing machine = + ₹ 5692
Total amount = 9588

		Th	H	T	O
			①	①	
Amount of a television	=	₹ 3	8	9	6
Amount of a washing machine	=	+ ₹ 5	6	9	2
Total amount	=	9	5	8	8

∴ Total money paid by Mr. Joshi = ₹ 9,588

5. Number of mango trees = 2793
Number of apple trees = 3215
Number of banana trees = + 2154
8162

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

∴ Total number of trees in the farm house = 8162

6. Donation collected by primary classes = ₹ 1803
Donation collected by middle classes = ₹ 2925
Donation collected by senior classes = + ₹ 4627
₹ 9355

		Th	H	T	O
			②		①
Donation collected by primary classes	=	₹	1	8	3
Donation collected by middle classes	=	₹	2	9	2
Donation collected by senior classes	=	+ ₹	4	6	2	7
			9	3	5	5

7.
		①	①	
	2	4	6	8
+	7	4	3	5
	9	9	0	3

∴ 9903 is the number which is more than 7435.

8. Motorbikes manufactured in the first year = 3569
Motorbikes manufactured in the second year = + 4255
Total number of motorbikes in these two years = 7824

		①	①	
	3	5	6	9
+	4	2	5	5
	7	8	2	4

∴ 7824 motorbikes were manufactured by the company in these two years.

9. In an election first candidates got votes = 2469

In an election second candidates got votes = 2936

In an election third candidates got votes = + 3125

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

∴ Total votes were polled in the election = 8530

10. Greatest 3-digit number = 999

Smallest 4-digit number = + 1000

1999

∴ The sum of the greatest 3-digit number and smallest 4-digit number = 1999

11. Number of red roses = 235

Number of pink roses = 456

Number of white roses = 189 = 235 + 456 + 189

[rounding off each number to the nearest 100]

= 200 + 500 + 200 = 900

12. Number of red balls = 145

Number of blue balls = 238

Number of green balls = 295 = 145 + 238 + 295

[rounding off each number to the nearest 100]

= 100 + 200 + 300 = 600

13. Kartik has red marbles = 175

Kartik has blue marbles = 295

Kartik has black marbles = 164 = 175 + 295 + 164

[rounding off each number to the nearest 10]

= 180 + 300 + 160 = 640

Check Yourself

1. (a) 678 + 1,104 = 1,104 + 678

(b) 48 + 1,110 + 235 = 1,110 + 48 + 235

(c) 3,896 + 481 = 481 + 3,896

(d) 2,130 + 78 + 561 = 2,130 + 561 + 78

2. (a)

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

(True)

(b)

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

(True)

(d)

ThHTO
5729
+4270
9 999

So, the sum of 5729 and 4270 is not 9,899. (False)

(e)

ThHTO
① ①
6213
+1879
8 092

So, the addends of 8,102 is not 6213 and 1879. (False)

3. (a) 6,399 + 121 — (iii) 8,761 [6375 + 2386 + 0]

(b) 8,390 + 0 — (ii) 8,998 [5000 + 3000 + 998]

(c) 1,635 + 4,800 + 400 — (iii) 6,520 [6399 + 121]

(d) 5,000 + 3,000 + 998 — (iv) 6,835 [1635 + 4800 + 400]

(e) 6,375 + 2,386 + 0 — (v) 8,390 [8390 + 0]

4. (a) 5 hundreds + 9 tens + 3 ones

500
90
+ 3
593

So, the correct option is (iii).

(b)

		Th	H	T	O
			①	①	
School library had books	=		2	6	9	8
More books bought in library	=	+		5	7	8
			3	2	7	6

(c)

		①
Pastries sold by Tanya	=	47
Pastries sold by Vanya	=	+ 39
		86

∴ Total pastries sold in all = 86 pastries

(d) Total strength of Ist primary school = 1200
Total strength of IInd primary school = 1300
Total strength of IIIrd primary school = + 1500
4000

∴ 4,000 pupils are there in all in the three schools

(e) Joe has amount = ₹ 38
Anna has amount = + ₹ 25
₹ 63

∴ They have ₹ 63 together.

5. Subtraction

Exercise 5.1

1. (a)

T	O
1	8
–	3
1	5

***Step* 1 :** Subtract the ones 8 – 3 = 5 ones. Write 5 under 'O'.

***Step* 2 :** Write 1 under 'T'.

Similarly,

(b)

T	O
9	
–	6
1	3

(c)

T	O
1	7
–	8
	9

(d)

T	O
9	5
– 2	4
7	1

***Step* 1 :** Subtract the ones 5 – 4 = 1 one. Write 1 under 'O'.

***Step* 2 :** Subtract the tens 9 – 2 = 7 Tens. Write 7 under 'T'.
Write 5 under the tens column.
So, the difference is 71.

(e)

	T	O
	③	⑬
	~~4~~	~~3~~
–	2	7
	1	6

Step 1 : Subtract the ones. We cannot subtract 7 ones from 3 ones. Therefore, we regroup tens into ones.

4 tens 3 ones = 3 tens 13 ones

13 – 7 = 6 ones.

Write 6 under the ones column.

Step 2 : Subtract the tens 3 – 2 = 1. Write 1 under the tens column.

So, the difference is 16.

(f)

	T	O
	④	⑩
	~~5~~	~~0~~
–	2	4
	2	6

Step 1 : Subtract the ones. We cannot subtract 4 ones from 0 ones. Therefore, we regroup Tens into ones.

5 tens 0 ones = 4 tens 10 ones

10 – 4 = 6 ones.

Write 6 under the ones.

Step 2 : Subtract the tens 4 – 2 = 2. Write 2 under tens column.

So, the difference is 26.

(g)

	H	T	
	①	⑬	⑭
	~~2~~	$^{3}\!/$	4$\!/$
–		1	
	0		5

Step 1 : Subtract the ones. We cannot subtract 8 one from 4 ones. Therefore, we regroup Tens into ones.

4 tens 4 ones = 3 tens 14 ones

14 – 8 = 6 ones.

Write 6 under the ones.

***Step* 2 :** Subtract the tens. We cannot subtract 8 ones from 3 ones. Therefore, we regroup hundreds into tens.

2 hundreds 3 tens = 1 hundred 13 tens

13 – 8 = 5.

(h)

	H	T	O
	4	6	9
–	3	2	5
	1	4	4

***Step* 1 :** Subtract the ones. 5 ones from 9 ones

9 – 5 = 4 ones. Write 4 under ones column.

***Step* 2 :** Subtract the tens. 2 tens from 6 tens.

6 – 2 = 4 tens.

***Step* 3 :** Subtract the hundreds. 3 hundreds from 4 hundreds.
4 – 3 = 1 hundreds.

Write 1 under hundreds column.

So, the difference is 144.

2. (a)

	T	O
	9	8
–	6	4
	3	4

(b)

	T	O
	⑤	⑰
	~~6~~	7
–	2	9
	3	8

(c)

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

(d)

	HTO		
	2	7	5
–			0
	2	7	5

(e)

	H	T	O
	2	4	6
–		4	6
	2	0	0

(f)

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

3. (a)

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

(b)

	H	T	O
	②	⑩	
	~~3~~	~~0~~	8
–		8	7
	2	2	1

(c)

	H	T	O
		⑦	⑪
	3	~~8~~	~~1~~
–	3	1	8
	0	6	3

(d)

	H	T	O
		⑫	
	6	~~2~~	8
–	5	8	7
	0	4	1

(e)

	H	T	O
	9	7	8
–	6	5	0
	3	2	8

(f)

	H	T	O
	⑦	⑨	⑩
	8	~~0~~	~~0~~
–	7	4	5
	0	5	5

Exercise 5.2

1. (a)

	Th	H	T	O
	4	6	7	9
−	1	3	5	7
	3	3	2	2

(b)

	Th	H	T	O
	7	3	8	9
−	1	0	6	9
	6	3	2	0

(c)

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

(d)

	Th	H	T	O
	4	9	8	8
2 −		5	3	3
	2	4	5	5

(e)

	Th	H	T	O
	6	3	8	8
4 −		2	7	7
	2	1	1	1

(f)

	Th	H	T	O
	4	7	0	5
3 −		7	0	4
	1	0	0	1

2. (a)

	Th	H	T	O
	8	6	4	7
5 −		4	2	5
	3	2	2	2

(b)

	Th	H	T	O
	2	7	8	6
−		2	4	4
	2	5	4	2

(c)

	Th	H	T	O
	1	4	3	9
1 −		1	7	7
		3	2	2

(d)

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

(e)

	Th	H	T	O
	3	8	7	7
2 −		8	6	7
	1	0	1	0

(f)

	Th	H	T	O
	5	2	3	6
3 −		0	8	4
	2	2	2	2

3. (a)

Subtract

	Th	H	T	O
	6	3	5	6
5 −				
	3	2	1	

Check

	Th	H	T	O	
	1	2	1	3	← Difference
+	5	1	4	3	← Subtrahend
	6	3	5	6	← Minuend

On subtracting 5143 from 6356, we get 1213.

On adding 1213 to 5143, we get back 6356.

So, the subtraction is correct.

Similarly,

(b)

	Th	H	T	O
	7	2	5	7
−	2	1	3	6
	5	1	2	1

Check

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

(c)

	Th	H	T	O
	6	7	8	6
−	1	4	2	3
	5	3	6	3

Check

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

(d)

	Th	H	T	O
	6	9	7	9
−	5	0	0	0
	1	9	7	9

Check

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

(e)

	Th	H	T	O
	9	9	9	9
−	8	7	6	9
	1	2	3	0

Check

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

(f)

	Th	H	T	O
	9	8	7	8
−	5	1	1	6
	4	7	6	2

Check

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

4. (a)

	Th	H	T	O
		③	⑩	
	5	4	0	9
−	2	1	9	8
	3	2	1	1

***Step* 1 :** Subtract the ones. 8 ones from 9 ones.

***Step* 2 :** Subtract the tens. But there are no tens in the tens column. So we go to the hundreds column and borrow 1 hundred. Now, the tens column has 10 tens Leaving 3 hundreds.

Now, 10 – 9 = 1 tens. Write 1 under tens.

***Step* 3 :** Subtract the hundreds. 3 – 1 = 2 hundreds.

Write 2 under hundreds column.

***Step* 4 :** Subtract the thousands. 5 thousands from 2 thousands. 5 – 2 = 3 thousands. Write 3 thousands in thousands column.

So, the difference is 3211.

(b)

	Th	H	T	O
	⑧	⑰	②	⑱
	~~9~~	~~7~~	~~3~~	~~8~~
–	1	9	0	9
	7	8	2	9

***Step* 1 :** We cannot subtract 9 ones from 8 ones. Borrow 1 ten from 3 tens leaving 2 tens.

1 ten + 3 ones = 18 ones

Now, 18 – 9 = 9 ones.

***Step* 2 :** Subtract the tens. 2 – 0 = 2 tens

***Step* 3 :** Subtract hundreds. We cannot subtract 9 hundred from 7 hundred Borrow 1 thousand leaving 8 thousands.

1 thousand + 7 hundreds = 17 hundreds.

Now, 17 – 9 = 8 hundreds.

***Step* 4 :** 8 thousands – 1 thousands = 7 thousands

Thus, 9738 – 1909 = 7829

Similarly,

(c)

	ThHTO			
	⑤	⑰	⑭	⑪
	~~6~~	^{7}~~8~~	^{4}~~3~~	~~1~~
–	3	9	9	8
	2	8	5	3

(d)

	Th	H	T	O
	⑥	⑯	⑯	⑰
	~~7~~	^{6}~~7~~	^{6}~~7~~	~~7~~
–	6	8	8	8
	0	8	8	9

(e)

Th	H	T	O
⑤	⑬	⑱	⑰
~~6~~	^{3}~~4~~	^{8}~~9~~	~~7~~
– 2	8	9	8
3	5	9	9

(f)

Th	H	T	O
⑥	⑭	⑧	⑬
~~7~~	~~4~~	~~9~~	~~3~~
– 2	9	4	7
4	5	4	6

5. (a)

Th	H	T	O
①	⑰	⑪	
2	~~8~~	~~1~~	9
– 1	8	9	9
0	9	2	0

(b)

Th	H	T	O
⑥	⑱	⑧	⑯
~~7~~	~~8~~	~~9~~	~~6~~
– 2	9	8	7
4	9	0	9

(c)

ThHTO			
④	⑨	⑨	⑩
~~5~~	~~0~~	~~0~~	~~0~~
– 3	4	5	2
1	5	4	8

(d)

Th	H	T	O
⑤	⑭	⑧	⑫
~~6~~	~~4~~	~~9~~	~~2~~
– 5	9	7	6
0	5	1	6

(e)

Th	H	T	O
③	⑨	⑨	⑩
~~4~~	~~0~~	~~0~~	~~8~~
– 2	1	7	9
1	8	2	9

(f)

Th	H	T	O
⑦	⑨	⑮	⑩
8	~~0~~	~~6~~	~~0~~
– 2	9	7	8
5	0	8	2

6. (a)

ThHTO		
5	~~8~~	~~9~~
3–	~~6~~	~~0~~
2	~~2~~	~~0~~

Check

ThHTO		
2	~~2~~	~~0~~ ← Difference
3+	~~6~~	~~0~~ ← Subtrahend
5	~~8~~	~~9~~ ← Minuend

On subtraction 5869 from 3649, we get 2220.

On adding 2220 to 3649, we get back 5869.

So, the subtraction is correct.

Similarly,

(b)

Th	H	T	O
⑦	⑨	⑨	⑭
~~8~~	~~0~~	^{18}~~9~~	~~4~~
– 7	8	9	6
0	1	9	8

Check

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

(c)

	Th	H	T	O
	④	⑨	⑨	⑩
	5	Ø	Ø	Ø
−	3	4	5	2
	1	5	4	8

Check

	Th	H	T	O
		①		
	8	4	5	2
+	3	4	5	2
	11	9	0	4

(d)

	Th	H	T	O
	④	⑨	⑨	⑩
	5	Ø	Ø	Ø
−	4	9	8	7
	0	0	1	3

Check

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

(e)

	Th	H	T	O
	①	⑬	⑨	⑯
	2	6	/	/
1 −		7	8	
	0	9	5	

Check

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

(f)

	Th	H	T	O
	④	⑪	⑦	⑯
	5	6	/	/
2 −		3	9	
	2	2	8	

Check

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

Exercise 5.3

1. (a)

	Th	H	T	O
	□	1	11	10
	1	2	/	/
−			4	3
	1	1	7	7

(b)

	Th	H	T	O
	□	2	13	15
	1	3	4	5
−	1	2	8	7
	0	0	5	8

(c)

	Th	H	T	O
	□	3	10	15
	2	4	/	/
2 −		3	3	
	0	8	0	

(d)

	Th	H	T	O
	□	4	13	12
	3	2	5	
1 −		6	2	
	2	8	2	

(e)

Th	H	T	O
□	1	17	11
4	12		/
3 –		8	8
1	4	1	

(f)

Th	H	T	O
□	6	12	11
4	17		
3 –		8	6
1		3	0

2. (a)

Th	H	T	O
0	12	17	17
1	3	8	7
–	8	9	8
	4	8	9

(b)

Th	H	T	O
1	9	9	13
2	0	0	3
– 1	2	1	4
0	7	8	9

(c)

Th	H	T	O
1	9	9	18
2	10		
1 –		9	8
0	9	1	

(d)

Th	H	T	O
2	14	16	14
3	5		
1 –		3	9
1		5	5

(e)

Th	H	T	O
3	11	9	14
4	12		
2 –		5	4
1		7	7

(f)

Th	H	T	O
3	15	14	14
4	5		
2 –		6	7
1		8	8

(g)

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

(h)

Th	H	T	O
7	11	9	14
8	2	0	4
– 2	8	9	6
5	3	0	8

(i)

Th	H	T	O
	6	16	
2	7	6	8
– 1	3	9	2
1	3	7	6

3. (a)

Th	H	T	O	
②	⑭	⑭	⑬	
~~3~~	~~5~~	~~5~~	~~3~~	
– 2	7	9	8	
0	7	5	5	← Difference

First arrange the digits of the given numbers in columns of hundreds, tens and ones. Write the bigger number first. Now, start by subtracting the ones, then tens and finally the hundreds.

Similarly,

(b)

	Th	H	T	O
	□	8	18	□
	7	9	8	8
−	4	8	9	7
	3	0	9	1

(c)

	Th	H	T	O
	5	13	18	□
	6	4	8	8
−	4	8	9	7
	1	5	9	1

(d)

	Th	H	T	O
	□	3	9	10
	5	0		
3 −		9		
	2	1		

(e)

	Th	H	T	O
	7	12	15	□
	8	5		
6 −		8		
	1	7		

(f)

	Th	H	T	O
	8	13	13	13
	9	3		
5 −		7		
	2	6		

Exercise 5.4

1. (a)

	Th	H	T	O
	⑤	⑪	⑨	⑬
	6	2	0	3
−	3	6	8	4
	2	5	1	9

		H	T	O	
	①	①	①		
	2	5	1	9	← Difference
+	3	6	8	4	← Subtrahend
	6	2	0	3	← Minuend

On subtracting 3684 from 6203, we get 2519.

On adding 2519 to 3684, we get back 6203.

So, the subtraction is correct.

Similarly,

(b)

	Th	H	T	O
	⑤	⑨	⑨	⑩
	6	0	0	0
−	3	7	2	5
	2	2	7	5

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

2. (a)

Th	H	T	O
	②	⑨	⑭
1	~~3~~	~~Ø~~	~~4~~
– 1	2	2	6
0	0	7	8

(b)

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

(c)

Th	H	T	O
①	⑭	⑮	⑫
~~2~~	~~3~~	~~Ø~~	~~2~~
– 1	8	7	4
0	6	8	8

(d)

Th	H	T	O
3	6	2	5
– 3	5	1	1
0	1	1	4

(e)

ThHTO			
	②	⑪	⑫
4	~~3~~	~~2~~	~~2~~
– 2	0	5	3
2	2	6	9

(f)

Th	H	T	O
		⑤	⑫
4	8	~~Ø~~	~~2~~
– 1	6	5	8
3	2	0	4

Exercise 5.5

1. (a) 243 (b) 0 (c) 0 (d) 2,691
(e) 1 (f) 6840

2. (a) 60 – 40 = 20

***Step* 1 :** Check that the minuend and subtrahend are in the same grouping, that is 10s. In 60 and 40, one zero is at the right. So, we put one zero in the difference.

***Step* 2 :** Now, subtract the numbers, i.e., 6 – 4 = 2.

So, the answer is 20.

(b) 800 – 400 = 400

***Step* 1 :** Check that the minuend and subtrahend are in the same grouping, i.e., 100s.

***Step* 2 :** In 400 and 800, two zeroes are at the right. So, we put two zeroes in the difference.

***Step* 3 :** Now, subtract the numbers, i.e., 8 – 4 = 4.

So, the answer is 400.

(c) $7,000 - 1,000 = 6,000$

Step 1 : Check that the minuend and subtrahend are in the same grouping, i.e., 1000s.

Step 2 : In 1,000 and 7,000, three zeroes are at the right. So, we put three zeroes in the difference.

Step 3 : Now, subtract the numbers, i.e., $7 - 1 = 6$.

So, the answer is 6,000.

(d) $40 - 30 = 10$

(e) $600 - 300 = 300$

(f) $8,000 - 3,000 = 5,000$

Exercise 5.6

1. (a) 35 from 272

Sol : **Actual Value**

	H	T	O
		⑥	⑫
	2	~~7~~	~~2~~
–		3	5
	2	3	7

Estimated Value

	H	T	O
		⑦	⓪
	2	~~7~~	~~Ø~~
–		4	0
	2	3	0

The actual value 237 when round off to the nearest 10 is 230.

So, the estimated value 230 is very close to the actual value 237.

(b) **Actual Value**

	H	T	O
		⑦	⑬
	8	~~3~~	~~Ø~~
–	4	4	0
	3	9	6

Estimated Value

	H	T	O
	8	4	0
–	4	4	0
	4	0	0

The actual value 396 when round off to the nearest 10 is 400.

So, the estimated value 400 is very close to the actual value 396.

(c) **Actual Value**

	H	T	O
	⑦	⑬	⑩
	~~8~~	~~4~~	~~0~~
−	6	7	6
	1	6	4

Estimated Value

	H	T	O
	⑦	⑭	
	~~8~~	~~4~~	0
−	6	8	0
	1	6	0

The actual value 164 when round off to the nearest 10 is 160.

So, the estimated value 160 is very close to the actual value 164.

2. (a) **Actual Value**

	H	T	O
		⑧	⑭
	7	~~9~~	~~4~~
−	6	7	6
	1	1	8

Estimated Value

	H	T	O
	8	0	0
−	7	0	0
	1	0	0

The actual value 118 when round off to the nearest 100 is 100.

So, the estimated value 100 is very close to the actual value 118.

(b) **Actual Value**

	HTO
	~~56~~
−	~~51~~
	01

Estimated Value

	HTO
	07
−	05
	01

The actual value 110 when round off to the nearest 100 is 100.

So, the estimated value 100 is very close to the actual value 110.

(c) **Actual Value**

	H	T	O
	⑧	⑫	⑮
	~~9~~	~~3~~	~~5~~
−	3	7	8
	5	5	7

Estimated Value

	H	T	O
	9	0	0
−	4	0	0
	5	0	0

The actual value 557 when round off to the nearest 100 is 500.

So, the estimated value 500 is very close to the actual value 557.

3. (a) 65 – 48

48 = 40 + 8 65 – 40 = 25 25 – 8 = 17

So, 65 – 48 = 17

(b) 83 – 38

38 = 30 + 8 83 – 30 = 53 53 – 8 = 45

So, 83 – 38 = 45

(c) 57 – 32

32 = 30 + 2 57 – 30 = 27 27 – 2 = 25

So, 57 – 32 = 25

Exercise 5.7

1.

	Th	H	T	O
	⑦	⑨	⑪	⑩
	~~8~~	~~Ø~~	~~2~~	~~Ø~~
–	3	6	5	9
	4	3	6	1

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

Now, add 4361 to 3659 to get the correct answer.

So, 4361 is more than 3,659.

2.

	ThHTO			
	⑥	⑨	⑨	⑩
	~~7~~	~~Ø~~	~~Ø~~	~~Ø~~
–	4	6	5	9
	2	3	4	1

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

Now, add 2341 to 4659 to get the correct answer.

So, 2341 is more than 4,659.

3.

	ThHTO			
			④	⑭
	9	6	~~5~~	~~4~~
–	5	5	4	7
	4	1	0	7

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

Now, add 4107 to 5547 to get the correct answer.

So, 4107 is the other number.

4. Total invitation cards are sent to people = 2,950

Total people came to function = 1,997

Cards were not used = 2,950 – 1,997

So, 953 cards were not used.

	ThHTO			
	①	⑱	⑭	⑩
	2	9	5	0
–	1	9	9	7
	0	9	5	3

5. Bottles needed in a hospital = 7,284

Bottles received from medical company = 5,798

More bottles need in hospital = 7,284 – 5,798

So, more bottles need in hospital = 1486

	Th	H	T	O
	⑥	⑪	⑰	⑭
	7	2	8	4
–	5	7	9	8
	1	4	8	6

6. Capacity of people in a circus ground = 5,298

Total people went to watch circus = 6,900

Total number of extra people on the ground

= 6,900 – 5,298

∴ Total extra people on the ground = 1602

	ThHTO			
		⑧	⑨	⑩
	6	9	0	0
–	5	2	9	8
	1	6	0	2

7. Total bags of wheat in a godown = 56,498

Total bags of wheat sold = 2,505

Total bags of wheat left in a godown

= 56,498 – 2,505

∴ Total bags of wheat left in a godown = 53993

	TThT	hHTO			
			⑤	⑭	
	5	6	4	9	8
–		2	5	0	5
	5	3	9	9	3

8. Monthly salary of Mr Verma = ₹ 9,500

Mr Verma spends = ₹ 6,495

He saved Amount from his salary

= ₹ 9,500 – ₹ 6,495

∴ Mr Verma saved ₹ 3005 from his salary.

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

9.

	ThHTO
	8 4
? –	6 1
	6 3

Now, subtract 6348 from 8498 to get the correct answer.

	ThHTO
	8 4
6 –	3 8
	2 1

So, 6,348 is the number when it is subtracted from 8,498 we get 2,150.

10. Cost of radio set = ₹ 6,590

Shyam has amount = ₹ 4,465

More money he need = ₹ 6,590 – ₹ 4,465

= ₹ 2125

	Th	H	T	O
			⑧	⑩
	6	5	Ø	Ø
–	4	4	6	5
	2	1	2	5

∴ Shyam need extra money to buy the radio set = ₹ 2125.

Check Yourself

1. (a) 4759 – 0 = 4759 (b) 1624 – 0 = 1624

(c) 2149 – 0 = 2149 (d) 2176 – 2176 = 0

(e) 8569 – 3000 = 5569 (f) 6596 – 80 = 6516

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

3. (a) 723 cm – 500 cm

HTO

= 223 cm

(b) 700 – 0

HTO

= 700

(c) 1000 – 800

HTO

= 200

(d) 585 – 100

HTO

= 485

6. Multiplication

Exercise 6.1

1. (a) Addition : 5 + 5 + 5 + 5 + 5 = **25** Multiplication **5** × **5** = **25**

(b) Addition : 4 + 4 + 4 + 4 = **16** Multiplication **4** × **4** = **16**

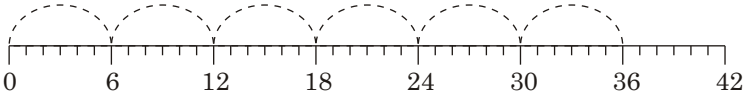
(c) Addition : 7 + 7 + 7 = **21** Multiplication **7** × **3** = **21**

(d) Addition : 8 + 8 + 8 + 8 = **32** Multiplication **8** × **4** = **32**

2. (a) $7 \times 9 = \mathbf{63}$ (b) $8 \times 9 = \mathbf{72}$ (c) $8 \times 6 = \mathbf{48}$

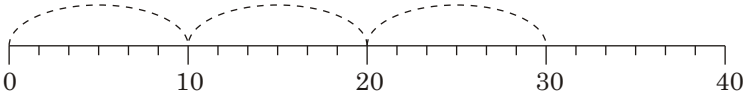
(d) $7 \times 7 = \mathbf{49}$ (e) $9 \times 4 = \mathbf{36}$ (f) $4 \times 8 = \mathbf{32}$

3. (a)



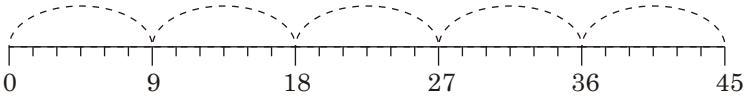
6 times 6 = 6 × 6 = 36

(b)



3 times 10 = 3 × 10 = 30

(c)



5 times 9 = 9 × 5 = 45

Exercise 6.2

1. (a) ***Step 1 :*** First multiply 2 ones by 4.
2 ones × 4 = 8 ones. Write 8 under 'O'.
Step 2 : Multiply 2 tens by 4. 2 tens × 4 = 8 tens.
Write 8 under 'T'.
So, the product is 22 × 4 = 88.

T	O
2	2
×	4
8	8

(b)

TO	
3	2
×	3
9	6

(c)

T	O
1	4
×	2
2	8

(d)

T	O
4	9
×	1
4	9

2. (a)

H	T	O
	①	
	9	2
×		5
4	6	0

***Step* 1 :** Multiply 2 ones by 5. 2 ones × 5 = 10 ones = 1 ten + 0 ones. Write 0 under 'O' and carry over 1 to the tens column.

***Step* 2 :** Multiply 9 tens by 5. 9 tens × 5 = 45 tens + 1 ten (carried over) = 45 tens. Write 46 under 'T'.

So, the product is 92 × 5 = 460.

(b)

H	T	O
	①	
	7	6
×		6
4	5	6

***Step* 1 :** Multiply 6 ones by 6. 6 ones × 6 = 36 ones = 3 tens + 6 ones. Write 6 under 'O' and carry over 3 to the tens column.

***Step* 2 :** Multiply 7 tens by 6. 7 tens × 6 = 42 tens + 3 tens (carried over) = 45 tens. Write 45 under 'T'.

So, the product is 76 × 6 = 456.

Similarly,

(c)

H	T	O
	④	
	8	5
×		9
7	6	5

(d)

H	T	O
	④	
	2	7
×		7
1	8	9

3. (a)

H	T	O
	①	
	4	5
×	1	2
	9	0
①		
4	5	0
5	4	0

***Step* 1 :** 45 × 2 = 90

***Step* 2 :** 45 × 10 = 450

***Step* 3 :** Sum of the products of step 1 and step 2 = 90 + 450 = 540

(b)
H	T	O
	1	4
×	1	2
	2	8
1	4	0
5	6	8

***Step* 1 :** $14 \times 2 = 28$

***Step* 2 :** $14 \times 10 = 140$

***Step* 3 :** Sum of the products of step 1 and step 2 $= 28 + 140 = 168$.

Similarly,

(c)
H	T	O
	①	
	2	8
×	2	2
	5	6
5	6	0
6	1	6

(d)
H	T	O
	③	
	5	5
×	1	6
3	3	0
5	5	0
8	8	0

4. (a)
H	T	O
	②	
	2	3
×	1	8
1	8	4
2	3	0
4	1	4

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

(c)
H	T	O
	②	
	4	6
×	2	4
1	8	4
9	2	0
11	0	4

(d)
H	T	O
	⑥	
	2	8
×	2	8
2	2	4
5	6	0
7	8	4

Exercise 6.3

1. (a) ***Step* 1 :** Multiply 2 ones by 7. 2 ones × 7 = 14 ones = 1 ten + 4 ones.

Write 4 under 'O' and carry over 1 to the tens column.

H	T	O
	⑤	①
	9	8	2
×			7
6	8	7	4

***Step* 2 :** Multiply 8 tens by 7.

8 tens × 7 = 56 tens + 1 ten (carried over) = 57 tens = 5 hundreds + 7 tens.

Write 7 under 'T' and carry over 5 to the hundreds column.

***Step* 3 :** Multiply 9 hundred by 7. 9 hundreds $\times 7 = 63$ hundreds +5 hundreds (carried over) = 68 hundreds. = 6 thousands + 8 hundreds. Write 8 under 'H' and 6 under 'Th'.

Similarly,

(b)
HTO
4 1 2
× 3
1 2 3 6

(c)
HTO
③②
1 9 6
× 4
7 8 4

(d)
HTO
⑦⑦
3 8 9
× 8
3 1 1 2

2. (a) ***Step* 1 :** $285 \times 9 = 2565$

***Step* 2 :** $285 \times 2 = 5700$

***Step* 3 :** Sum of the products of step 1 and step 2

$= 2565 + 5700 = 8265$

H T O
⑦④
2 8 5
× 2 9
2 5 6 5
5 7 0 0
8 2 6 5

Similarly,

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

(c)
H T O
②
5 6 1
× 1 4
2 2 4 4
5 6 1 0
7 8 5 4

(d)
H T O
②
2 5 4
× 3 6
1 5 2 4
7 6 2 0
9 1 4 4

Exercise 6.4

1. (a)
TO
1 0
× 8
8 0

(b)
TO
2 8
× 1 0
0 0
2 8 0
2 8 0

(c)
TO
1 2
× 2 0
0 0
2 4 0
2 4 0

(d)
	T	O
	5	0
×	4	0
	0	0
2	0	0
2	0	0

(e)
	T	O
	9	0
×	6	0
	0	0
5	4	0
5	4	0

(f)
	T	O
	1	0
×		4
	4	0

2. (a) $25 \times \mathbf{37} = 35 \times \mathbf{25}$ (b) $\mathbf{36} \times 48 = 48 \times 36$

(c) $87 \times 29 = 29 \times \mathbf{87}$ (d) $139 \times 842 = \mathbf{842} \times 39$

(e) $288 \times 1 = 288$ (f) $\mathbf{1} \times 274 = 274$

Exercise 6.5

1. (a)
	Th	H	T	O
	3	2	1	3
×				3
	9	6	3	9

(b)
	Th	H	T	O
		①	①	
	1	0	2	2
×				6
	6	1	3	2

(c)
	Th	H	T	O
	①	②		
	2	3	4	1
×				5
	11	7	0	5

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

(e)
	Th	H	T	O
	2	3	0	1
×				3
	6	9	0	3

(f)
	Th	H	T	O
	1	0	0	2
×				4
	4	0	0	8

(g)
	Th	H	T	O
	④	③		③
	1	7	5	6
×				6
	10	5	3	6

(h)
	Th	H	T	O
	①	①	①	
	1	8	7	9
×				2
	3	7	5	8

2. (a) $1080 \times 2 = (1000 + 80) \times 2$

$= (1000 \times 2) + (80 \times 2)$

$= 2000 + 160 = 2160$

(b) $1620 \times 3 = (1000 + 600 + 20) \times 3$

$= (1000 \times 3) + (600 \times 3) + (20 \times 3)$

$= 3000 + 1800 + 60 = 4860$

(c) $2345 \times 4 = (2000 + 300 + 40 + 5) \times 4$

$= (2000 \times 4) + (300 \times 4) + (40 \times 4) + (5 \times 4)$

$= 8000 + 1200 + 160 + 20 = 9380$

(d) $1050 \times 5 = (1000 + 50) \times 5 = (1000 \times 5) + (50 \times 5)$

$= 5000 + 250 = 5250$

3. (a) Multiply 36 by 8 using the estimation method by rounding off to the nearest 10 to compare with the actual value.

Estimation Value

H	T	O	
	4	0	
×		8	
3	2	0	= 288

Actual Value

H	T	O	
	④		
	3	6	
×		8	
2	8	8	

So, the estimated value 320 is not very close to the actual value 288.

(b) **Estimation Value**

H	T	O	
	①		
	4	0	
×		7	
2	8	0	= 294

Actual Value

H	T	O	
	①		
	4	2	
×		7	
2	9	4	

So, the estimated value 280 is very close to the actual value 294.

(c) **Estimation Value**

H	T	O	
	③		
	8	5	
×		6	
5	1	0	= 510

Actual Value

H	T	O	
	8	5	
×		6	
5	1	0	

(d) **Estimation Value**

H	T	O	
	③		
	9	0	
×		4	
3	6	0	= 364

Actual Value

H	T	O	
	9	1	
×		4	
3	6	4	

(e) **Estimation Value**

H	T	O
	5	0
×		6
3	0	0

= 294

Actual Value

H	T	O
	⑤ 4	9
×		6
2	9	4

(f) **Estimation Value**

H	T	O
	60	
×		5
3	0	0

= 285

Actual Value

H	T	O
	⑤ 5	7
×		5
2	8	5

Exercise 6.6

1. In 1 hour the bus travels = 50 kilometres

In 6 hours the bus travels = 50 × 6

So, the bus travels 300 kilometres in 6 hour.

H	T	O
	5	0
×		6
3	0	0

2. Total students in a section of class IIIrd = 35 each

Total numbers of students in 9 section = 35 × 9

So, 315 students are there in 9 sections

H	T	O
	④ 3	5
×		9
3	1	5

3. Number of people can travel in a bus = 75

Total number of people can travel in 12 such buses = 75 × 12

So, 900 people can travel in 12 such buses.

HTO	
① 75	
×12	
150	
750	
900	

4. Number of trees in a forest = 121

Number of chimps live on each tree = 7

Total number of chimps = 121 × 7

So, 847 chimps are there in all.

HTO	
① 121	
×	7
8	4 7

5. Number of people can sit in 1 bus = 48

Number of people can sit in 200 buses = 200×48

So, 9600 people can sit in 200 buses.

H	T	O
2	0	0
×	4	8
1	6	0	0
8	0	0	0
9	6	0	0

6. A fruitseller has total boxes = 42

Each box having strawberries = 15

Total number of strawberries in all = 42×15

So, 630 strawberries are there in all.

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

7. A packet contains balloons = 148

Balloons in 18 such packets = 148×18

So, total balloon in 18 such packets is 2664.

H	T	O
①	⑥	
1	4	8
×	1	8
1	1	8	4
1	4	8	0
2	6	6	4

8. Number of mother goats = 512

Each mother goat gave to birth = 2 kids

Total number of kids = $512 \times 2 = 1024$

So, there are total kids = 1024 kids

	512
×	2
	1024

9. Cost of 1 shirt = ₹ 345

Cost of such 14 shirts = ₹ 345×14

∴ Cost of 14 shirts = ₹ 4830

	①②	
	3	45
×	1	4
1	3	8	0
3	4	5	0
4	8	3	0

10. We know, 1 hour = 60 minutes

1 day = 24 hours

Total minutes in a day = $60 \times 24 = 1440$ min

Check Yourself

1. (a) $2399 \times \mathbf{1} = 2399$ (b) $2386 \times \mathbf{2651} = 2651 \times \mathbf{4386}$

(c) $0 \times 2485 = \mathbf{0}$ (d) $2451 \times 1 = \mathbf{2451}$

(e) $80 \times 90 = \mathbf{7200}$ (f) $100 \times 10 = \mathbf{1000}$

(g) $60 \times 100 = \mathbf{6000}$ (h) $13 \times 6 = \mathbf{78}$

2.

(a)	4×3	(i)	2×7 [7×2]
(b)	6×3	(ii)	10×5 [5×10]
(c)	7×2	(iii)	21×3 [9×7]
(d)	5×10	(iv)	$10 + 2$ [4×3]
(e)	9×7	(v)	9×2 [6×3]

3. (a) $10 \times 100 = 1000$ (b) $6 \times 8 \times 3 = \mathbf{144}$

```
  1 0 0
×   1 0
-------
    0 0 0
  1 0 0 0
-------
  1 0 0 0
```

```
    6
  × 8
-----
  4 8
```

```
    4 8
  × 3
-----
  1 4 4
```

(c) Greatest 2-digit number = 99
Smallest 3-digit number = 100
The product = 9900

```
  1 0 0
×   9 9
-------
    9 0 0
  9 0 0 0
-------
  9 9 0 0
```

(d) Greatest 3-digit number = 999
Smallest 2-digit number = 10
The product = 9990

```
  9 9 9
×   1 0
-------
    0 0 0
  9 9 9 0
-------
  9 9 9 0
```

(e) 80×80

```
    8 0
  × 8 0
-------
    0 0
  6 4 0 0
-------
  6 4 0 0
```

The product of 80 and 80 is 6400.

7. Division

1. (a) $8 \div 2 = \mathbf{4}$

$8 - 2 = 6$

$6 - 2 = 4$

$4 - 2 = 2$

$2 - 2 = 0$

(b) $1616 \div 4 = \mathbf{4}$

$16 - 4 = 12$

$12 - 4 = 8$

$8 - 4 = 8$

$4 - 4 = 0$

(c) $12 \div 6 = \mathbf{2}$

$12 - 6 = 6$

$6 - 6 = 0$

(d) $20 \div 4 = \mathbf{5}$

$20 - 4 = 16$

$16 - 4 = 12$

$12 - 4 = 8$

$8 - 4 = 4$

$4 - 4 = 0$

(e) $30 \div 5 = \mathbf{6}$

$30 - 5 = 25$

$25 - 5 = 20$

$20 - 5 = 15$

$15 - 5 = 5$

$5 - 5 = 0$

(f) $27 \div 9 = \mathbf{3}$

$27 - 9 = 18$

$18 - 9 = 9$

$9 - 9 = 0$

(g) $49 \div 7 = \mathbf{7}$

$49 - 7 = 42$

$42 - 7 = 35$

$35 - 7 = 28$

$28 - 7 = 21$

$21 - 7 = 14$

$14 - 7 = 7$

$7 - 7 = 0$

(h) $24 \div 8 = \mathbf{3}$

$24 - 8 = 16$

$16 - 8 = 8$

$8 - 8 = 0$

2. (a) $16 - 4 = \mathbf{12}$

$\mathbf{12} - 4 = 8$

$\mathbf{8} - 4 = 4$

$\mathbf{4} - 4 = 0$

$\mathbf{4} \div 4 = 1$

(b) $20 \div 5 = 4$

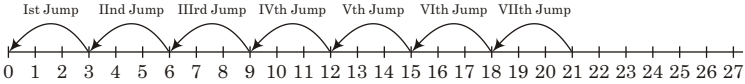
$20 - 5 = 15$

$15 - \mathbf{5} = 10$

$10 - \mathbf{5} = 5$

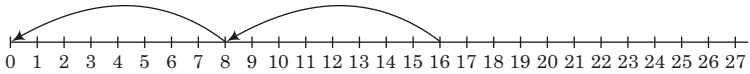
$5 - \mathbf{5} = 0$

3. (a)



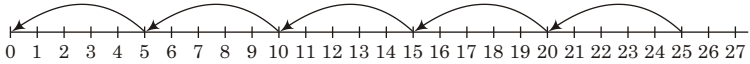
21 ÷ 3 = 7

(b)



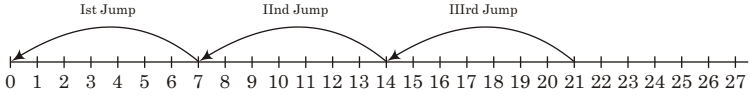
16 ÷ 8 = 2

(c)



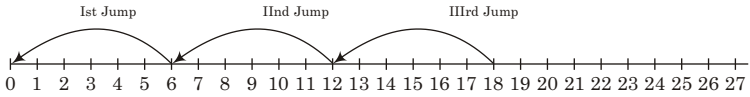
25 ÷ 5 = 5

4. (a)



21 ÷ 7 = 3

(b)



18 ÷ 6 = 3

Exercise 7.2

1.

	Multiplication Facts	Corresponding	Division Facts
(a)	2 × 8 = 16	16 ÷ 2 = 8	16 ÷ 8 = 2
(b)	4 × 6 = 24	24 ÷ 6 = 4	24 ÷ 4 = 6
(c)	3 × 7 = 21	21 ÷ 7 = 3	21 ÷ 3 = 7
(d)	2 × 9 = 18	18 ÷ 9 = 2	18 ÷ 2 = 9

2. (a) 3 × 9 = 27 27 ÷ 9 = 3 and 27 ÷ 3 = 9

(b) 5 × 9 = 45 45 ÷ 9 = 5 and 45 ÷ 5 = 9

(c) 2 × 7 = 14 14 ÷ 2 = 7 and 14 ÷ 7 = 2

(d) 9 × 2 = 18 18 ÷ 9 = 2 and 18 ÷ 2 = 9

3. (a) 9 ÷ 9 = **1**

$$\begin{array}{r} 1 \\ 9\overline{)\,9} \\ \underline{9} \\ 0 \end{array}$$

[When we divide any number by itself the answer is 1.]

(b) $24 \div 1 = \mathbf{24}$

$$1\overline{)24}\,(24$$
$$\underline{24}$$
$$0$$

[When we divide any number by 1, the answer is the number itself]

(c) $20 \div 10 = \mathbf{2}$

$$10\overline{)20}\,(2$$
$$\underline{20}$$
$$0$$

(d) $0 \div 7 = \mathbf{0}$ [When we divide 0 by any number, the answer is 0.]

Similarly,

(e) $32 \div 32 = \mathbf{1}$

$$32\overline{)32}\,(1$$
$$\underline{32}$$
$$0$$

(f) $118 \div 1 = \mathbf{118}$

$$1\overline{)118}\,(118$$
$$1\downarrow\quad|$$
$$\underline{1}\quad|$$
$$1\quad\downarrow$$
$$\underline{1}$$
$$8$$
$$\underline{8}$$
$$0$$

4. (a) $93 \div \mathbf{1} = 93$ (b) $\mathbf{75} \div 1 = 75$ (c) $50 \div \mathbf{10} = 5$

(d) $\mathbf{0} \div 37 = 0$ (e) $623 \div \mathbf{623} = 1$ (f) $\mathbf{0} \div 55 = 0$

Exercise 7.3

1. (a) 57 by 5

$$5\overline{)57}\,(11$$
$$5\downarrow$$
$$\underline{7}$$
$$\underline{5}$$
$$2$$

***Step* 1 :** Divide the number on the extreme left, i.e. 5 have by 5.

$5 \div 5 = 1$

Write 1 above in the tens place of the quotient and 5 below the dividend in the tens place $5 - 5 = 0$. Write O below 5 and bring down 7 ones.

***Step* 2 :** Divide 7 by 5. $7 \div 5 = 1$ and the remainder is $7 - 5 = 2$ (as $2 < 5$). Write 1 in the quotient in the ones place and 5 below 7.

***Step* 3 :** Write 2 as the remainder. We cannot divide further as we got a remainder which is less than the divisor.

So, $Q = 11$, $R = 2$

Similarly,

(b) $85 \div 4$

$$\begin{array}{r} 21 \\ 4\overline{)85} \\ 8\downarrow \\ \hline 5 \\ 4 \\ \hline 1 \end{array}$$

So, $Q = 21$, $R = 1$

(c) $67 \div 6$

$$\begin{array}{r} 11 \\ 6\overline{)67} \\ 6\downarrow \\ \hline 7 \\ 6 \\ \hline 1 \end{array}$$

So, $Q = 11$ $R = 1$

(d) $84 \div 4$

$$\begin{array}{r} 21 \\ 4\overline{)84} \\ 8\downarrow \\ \hline 4 \\ 4 \\ \hline 0 \end{array}$$

So, $Q = 21$, $R = 0$

(e) $96 \div 6$

$$\begin{array}{r} 16 \\ 6\overline{)96} \\ 6\downarrow \\ \hline 36 \\ 36 \\ \hline 0 \end{array}$$

Step 1 : Divide 9 by 6. 6 goes 1 time in 9 and the remainder is $9 - 6 = 3$. $(3 < 6)$. Write 1 in the quotient in the tens place and 6 below 9.

Step 2 : Subtract 6 from 9, that is $9 - 6 = 3$. Write 3 below 6 and bring down 6 ones and write it next to 3 to get 36.

Step 3 : Divide 36 by 6. 6 goes 6 times in 36 and the remainder is $36 - 36 = 0$

So, $Q = 16$, $R = 0$

Similarly,

(f) $68 \div 2$

$$\begin{array}{r} 34 \\ 2\overline{)68} \\ 6\downarrow \\ \hline 8 \\ 8 \\ \hline 0 \end{array}$$

So, $Q = 34$, $R = 0$

(g) $69 \div 6$

$$\begin{array}{r} 11 \\ 6\overline{)69} \\ 6\downarrow \\ \hline 9 \\ 6 \\ \hline 3 \end{array}$$

So, $Q = 11$, $R = 3$

(h) $92 \div 9$

$$\begin{array}{r} 1 \\ 9\overline{)92} \\ 9\downarrow \\ \hline 02 \end{array}$$

So, $Q = 1$, $R = 2$

2. (a) $36 \div 3$

$$3\overline{)36}\,(12$$
$$\underline{3\downarrow}$$
$$6$$
$$\underline{6}$$
$$0$$

***Step* 1 :** Divide the number on the extreme left, i.e. $3 \div 3 = 1$. Write 1 in the tens place of the quotient and 3 below the dividend in the tens place $3 - 3 = 0$. Write 0 below 3 and bring down 6 ones.

***Step* 2 :** Divide 6 by 3. Write 2 above in the ones place of the quotient and 6 below the dividend in the ones place. $6 - 6 = 0$. We get 0 as the remainder.

So, dividend = 36 , divisor = 3, quotient = 12 and remainder = 0

Check : Divisor × Quotient + Remainder = Dividend

i.e., $3 \times 12 + 0 = 36$ is dividend

Hence, the answer is verified.

(b) $48 \div 8$

$$8\overline{)48}\,(6$$
$$\underline{48}$$
$$0$$

***Step* 1 :** Divide 48 by 8. 8 goes 6 times in 48 and the remainder is $48 - 48 = 0$.

Write 6 in the quotient and 48 below the 48. We get 0 as the remainder.

Check : Divisor × Quotient + Remainder = Dividend

That is, $8 \times 6 + 0 = 48$ is dividend

Hence the answer is verified.

(c) $97 \div 4$

$$4\overline{)97}\,(24$$
$$\underline{8\downarrow}$$
$$17$$
$$\underline{16}$$
$$1$$

***Step* 1 :** Divide 97 by 4. 4 goes 2 times in 9 and the remainder is $9 - 8 = 1$. Write 1 below 8 and bring down 7 ones and write it next to 1 to get 17.

***Step* 2 :** Divide 17 by 4. 4 goes 4 times in 17 and the remainder is $17 - 16 = 1$. Write 4 in the ones place and 16 below 17.

***Step* 3 :** Write 1 as the remainder. We cannot divisor further as we got a remainder which is less than the divisor.

So, $Q = 24$, $R = 1$

Check : Divisor × Quotient + Remainder = Dividend

i.e., $4 \times 24 + 1 = 97$ is dividend

Hence the answer is verified.

(d) $55 \div 5$

$$\begin{array}{r|l} 5 & 55 \\ \hline 5\downarrow & \\ \hline 5 & \\ 5 & \\ \hline 0 & \end{array} \quad 11$$

$Q = 11$, $R = 0$

Check : Divisor × Quotient + Remainder = Dividend

$5 \times 11 + 0 = 55$

Hence the answer is verified.

(e) $42 \div 8$

$$\begin{array}{r|l} 8 & 42 \\ \hline 40 & \\ \hline 2 & \end{array} \quad 5$$

$Q = 5$, $R = 2$

Check : Divisor × Quotient + Remainder = Dividend

$8 \times 5 + 2 = 42$

Hence the answer is verified.

(f) $29 \div 2$

$$\begin{array}{r|l} 2 & 29 \\ \hline 2\downarrow & \\ \hline 9 & \\ 8 & \\ \hline 1 & \end{array} \quad 14$$

$Q = 14$, $R = 1$

Check : Divisor × Quotient + Remainder = Dividend

$2 \times 14 + 1 = 29$

Hence the answer is verified.

(g) $69 \div 6$

$$\begin{array}{r|l} 6 & 69 \\ \hline 6\downarrow & 11 \\ \hline 9 & \\ 6 & \\ \hline 3 & \end{array}$$

$Q = 11,\ R = 3$

Check : Divisor × Quotient + Remainder = Dividend

$6 \times 11 + 3 = 69$

Hence the answer is verified.

(h) $75 \div 9$

$$\begin{array}{r|l} 9 & 75 \\ \hline 72 & 8 \\ \hline 3 & \end{array}$$

$Q = 8,\ R = 3$

Check : Divisor × Quotient + Remainder = Dividend

$9 \times 8 + 3 = 75$

Hence the answer is verified.

Exercise 7.4

1. (a) $459 \div 4$

$$\begin{array}{r|l} 4 & 459 \\ \hline 4\downarrow & 114 \\ \hline 5 & \\ 4\downarrow & \\ \hline 19 & \\ 16 & \\ \hline 3 & \end{array}$$

***Step* 1 :** Start dividing from left side. Divide 4 by 4. $4 \div 4 = 1$. Write 1 in the quotient in the hundreds place and 4 below 4.

***Step* 2 :** Bring down 5 from the tens place. Divide 5 by 4. $5 \div 4 = 1$. Write one is the tens place in the quotient. $5 - 4 = 1$. Write 1 as remainder. We can not divide further as we got a remainder which is less than the divisor.

***Step* 3 :** Bring down 9 ones and write it next to 1 to get 19. Divide 19 by 4. $4 \times 4 = 16$, $19 \div 4 = 4$. Write 4 in the ones place in the quotient $19 - 16 = 3$.

So, we have $Q = 114$, $R = 3$.

(b) $635 \div 2$

$$\begin{array}{r|l} 2 & 635 \\ \hline & 6 \\ & 3 \\ & 2 \\ \hline & 15 \\ & 14 \\ \hline & 1 \end{array} \quad 317$$

Step 1 : Divide 6 by 2. 2 goes 3 times in 6 and the remainder is $6 - 6 = 0$. Write 3 in the quotient in the hundreds place and 6 below 6.

Step 2 : Subtract 6 from 6, that is $6 - 6 = 0$. Write O below 6 and bring down 3 tens divide 3 by 2. 2 goes 1 times in 3 and the remainder is $3 - 2 = 1$ (as $1 < 2$). Write 1 in the quotient in the tens place and 2 below 3. Write 1 as the remainder.

Step 3 : Now, bring down 5 from the ones place and write it next to 1 to get 15. Divide 15 by 2. $(2 \times 7 = 14)$. $14 \div 2 = 7$. Write 7 in the ones place in the quotient. $15 - 14 = 1$.

So, we have $Q = 317$, $R = 1$.

Similarly,

(c) $7{,}144 \div 8$

$$\begin{array}{r|l} 8 & 7144 \\ \hline & 64 \\ & 74 \\ & 72 \\ \hline & 24 \\ & 24 \\ \hline & 0 \end{array} \quad 893$$

$Q = 893$

$R = 0$

(d) $8{,}056 \div 6$

$$\begin{array}{r|l} 6 & 8056 \\ \hline & 6 \\ & 20 \\ & 18 \\ \hline & 25 \\ & 24 \\ \hline & 16 \\ & 12 \\ \hline & 4 \end{array} \quad 1342$$

$Q = 1342$

$R = 4$

(e) $225 \div 5$

$$\begin{array}{r|l} 5 & 225 \\ \hline & 20 \\ & 25 \\ & 25 \\ \hline & 0 \end{array} \quad 45$$

$Q = 45$

$R = 0$

(f) $740 \div 7$

$$\begin{array}{r|l} 7 & 740 \\ \hline & 7 \\ & 40 \\ & 35 \\ \hline & 5 \end{array} \quad 105$$

$Q = 105$

$R = 5$

(g) $6,275 \div 4$

$4\overline{)6275}\,(1568$

4
22
20
27
24
35
32
3

$Q = 1568$

$R = 3$

(h) $9,235 \div 5$

$5\overline{)9235}\,(1847$

5
42
40
23
20
35
35
0

$Q = 1847$

$R = 0$

2. (a) $385 \div 7$

$7\overline{)385}\,(55$

35
35
35

***Step* 1 :** Start dividing from the left side. Divide 3 by 7 but $3 < 7$, so division is not possible. Hence we take 38.

Divide 38 by 7. $38 \div 7 = 5$ with 3 as remainder. Write 5 in the tens place of the quotient. Write 35 below 38. $38 - 35 = 3$ (remainder)

***Step* 2 :** Bring down 5 ones. Now, we have 35. divide 35 by $7 = 5$ with 0 remainder. Write 5 in the ones place of the quotient. $7 \times 5 = 35$. Write 35 below 35. $35 - 35 = 0$ (remainder)

So, we have $Q = 55$, $R = 0$

Check : Divisor × Quotient + Remainder = Dividend

$7 \times 55 \times 0 = 385 =$ Dividend

Hence, the answer is verified.

Similarly,

(b) $397 \div 9$

$9\overline{)397}\,(44$

36
37
36
1

So, we have $Q = 44$, $R = 1$

(c) $1937 \div 6$

$6\overline{)1937}\,(322$

18
13
12
17
12
5

So, we have $Q = 322$, $R = 5$

(d) $2181 \div 5$

$5\overline{)2181}\,(436$

20

18

15

31

30

1

So, we have $Q = 436$, $R = 1$

(e) $899 \div 4$

$4\overline{)899}\,(224$

8

9

8

19

16

3

So, we have $Q = 224$, $R = 3$

(f) $615 \div 8$

$8\overline{)615}\,(76$

56

55

48

7

So, we have $Q = 76$, $R = 7$

(g) $3275 \div 4$

$4\overline{)3275}\,(818$

32

7

4

35

32

3

So, we have $Q = 818$, $R = 3$

(h) $5312 \div 9$

$9\overline{)5312}\,(590$

45

81

81

2

So, we have $Q = 590$, $R = 2$

Exercise 7.5

1. (a) $26 \div 1 = \mathbf{26}$ [We know, if a non-zero number is divided by 1, the quotient is the number itself.]

(b) $\mathbf{25} \div 1 = 25$ [If a non-zero number is divided 1, the quotient is the number itself.]

(c) $59 \div 59 = \mathbf{1}$ [If a non-zero number is divided by itself, the quotient is 1.]

(d) $0 \div 2 = \mathbf{0}$ [If zero is divided by any non-zero number, the quotient is 0.]

Similarly,

(e) $14 \div 14 = \mathbf{1}$ (f) $0 \div 16 = \mathbf{0}$

2. (a) $2 \div 389$

$$\begin{array}{r|l} 2 & 389 \\ \hline & 2 \\ \hline & 18 \\ & 18 \\ \hline & 9 \\ & 8 \\ \hline & 1 \end{array} \quad 194$$

***Step* 1 :** Divide 3 hundreds by 2. 2 goes into 3 one time $2 \times 1 = 2$. Write 1 at hundreds place in the quotient and 2 below 3. 3 hundreds –2 hundreds = 1 hundreds

***Step* 2 :** Bring down 8 tens

1 hundreds + 8 tens = 18 tens

Divide 18 tens by 2.

2 goes into 18 nine times. $2 \times 9 = 18$. Write 9 at tens place in the quotient and 18 below 18.

***Step* 3 :** Bring down 9 ones.

Divide 9 ones by 2.

2 goes into 9 four times $2 \times 4 = 8$. Write 4 at ones place in the quotient and 8 below the 9.

9 ones – 8 ones = 1 ones

So, Remainder = 1, Quotient = 194

$\therefore$ $389 \div 2 = 194$

Similarly,

(b) $2 \div 96$

$$\begin{array}{r|l} 2 & 96 \\ \hline & 8 \\ \hline & 16 \\ & 16 \\ \hline & 0 \end{array} \quad 48$$

So, Remainder = 0

Quotient = 48

$\therefore$ $96 \div 2 = 48$

(c) $3 \div 457$

$$\begin{array}{r|l} 3 & 457 \\ \hline & 3 \\ \hline & 15 \\ & 15 \\ \hline & 7 \\ & 6 \\ \hline & 1 \end{array} \quad 152$$

So, Remainder = 1

Quotient = 152

$\therefore$ $457 \div 3 = 152$

(d) $4 \div 89$

$$\begin{array}{r|l} 4 & 89 \\ \hline & 8 \\ \hline & 9 \\ & 8 \\ \hline & 1 \end{array} \quad 22$$

So, Remainder = 1

Quotient = 22

$\therefore \quad 89 \div 4 = 22$

(e) $4 \div 738$

$$\begin{array}{r|l} 4 & 738 \\ \hline & 4 \\ \hline & 33 \\ & 32 \\ \hline & 18 \\ & 16 \\ \hline & 2 \end{array} \quad 184$$

So, Remainder = 2

Quotient = 184

$\therefore \quad 738 \div 4 = 184$

(f) $5 \div 89$

$$\begin{array}{r|l} 5 & 89 \\ \hline & 5 \\ \hline & 39 \\ & 35 \\ \hline & 4 \end{array} \quad 17$$

So, Remainder = 4

Quotient = 17

(g) $5 \div 250$

$$\begin{array}{r|l} 5 & 250 \\ \hline & 25 \\ \hline & 00 \end{array} \quad 50$$

So, Remainder = 0

Quotient = 50

(h) $6 \div 876$

$$\begin{array}{r|l} 6 & 876 \\ \hline & 6 \\ \hline & 27 \\ & 24 \\ \hline & 36 \\ & 36 \\ \hline & 0 \end{array} \quad 146$$

So, Remainder = 0

Quotient = 146

3. (a) $60 \div 10 = \mathbf{6}$

$$\begin{array}{r|l} 10 & 60 \\ \hline & 60 \\ \hline & 0 \end{array} \quad 6$$

(b) $90 \div 10 = \mathbf{9}$

$$\begin{array}{r|l} 10 & 90 \\ \hline & 90 \\ \hline & 0 \end{array} \quad 9$$

(c) $70 \div 10 = \mathbf{7}$

$$\begin{array}{r|l} 10 & 70 \\ & 70 \\ \hline & 0 \\ \hline \end{array} \quad 7$$

(d) $160 \div 10 = \mathbf{16}$

$$\begin{array}{r|l} 10 & 160 \\ & 10\downarrow \\ \hline & 60 \\ & 60 \\ \hline & 0 \\ \hline \end{array} \quad 16$$

(e) $210 \div 10 = \mathbf{21}$

$$\begin{array}{r|l} 10 & 210 \\ & 20\downarrow \\ \hline & 10 \\ & 10 \\ \hline & 0 \\ \hline \end{array} \quad 21$$

(f) $3{,}860 \div 10 = \mathbf{386}$

$$\begin{array}{r|l} 10 & 3860 \\ & 30\downarrow \\ \hline & 86 \\ & 80\downarrow \\ \hline & 60 \\ & 60 \\ \hline & 0 \\ \hline \end{array} \quad 386$$

4. (a) $79 \div 10$

$$\begin{array}{r|l} 10 & 79 \\ & 79 \\ \hline & 9 \\ \hline \end{array} \quad 7$$

$Q = 7, R = 9$

(b) $675 \div 10$

$$\begin{array}{r|l} 10 & 675 \\ & 60\downarrow \\ \hline & 75 \\ & 70 \\ \hline & \\ \hline \end{array} \quad 67$$

$Q = 67, R = 5$

(c) $2431 \div 10$

$$\begin{array}{r|l} 10 & 2431 \\ & 20\downarrow \\ \hline & 43 \\ & 40\downarrow \\ \hline & 31 \\ & 30 \\ \hline & 1 \\ \hline \end{array} \quad 243$$

$Q = 243, R = 1$

(d) $723 \div 100$

$$\begin{array}{r|l} 100 & 723 \\ & 700 \\ \hline & 23 \\ \hline \end{array} \quad 7$$

$Q = 7, R = 23$

(e) $5894 \div 100$

$$\begin{array}{r|l} 100 & 5894 \\ & 500 \\ \hline & 894 \\ & 800 \\ \hline & 94 \end{array} \quad 58$$

$Q = 58,\ R = 94$

Exercise 7.6

1. Cost of 8 toy guns = ₹ 288

Cost of 1 toy gun = ₹ $288 \div 8$ = ₹ 36

∴ Cost of 1 toy gun = ₹ 36

$$\begin{array}{r|l} 8 & 288 \\ & 24 \\ \hline & 48 \\ & 48 \\ \hline & 0 \end{array} \quad 36$$

2. Total number of students is divided into 6 equal groups = 504

Total students in each group = $504 \div 6$

∴ There are 84 students in each group.

$$\begin{array}{r|l} 6 & 504 \\ & 48 \\ \hline & 24 \\ & 24 \\ \hline & 0 \end{array} \quad 84$$

3. If total students can sit on 1 bench = 6 students

Total number Benches are needed for 882 students

$= 882 \div 6$

∴ For 882 students needed benches = 147

$$\begin{array}{r|l} 6 & 882 \\ & 6 \\ \hline & 28 \\ & 24 \\ \hline & 42 \\ & 42 \\ \hline & 0 \end{array} \quad 147$$

4. A car goes in 1 litre = 8 km

It will consume petrol to go 1040 km = $1040 \div 8$

∴ The car will consume 130 litre of petrol to go 1040 km.

$$\begin{array}{r|l} 8 & 1040 \\ & 8 \\ \hline & 24 \\ & 24 \\ \hline & 00 \end{array} \quad 130$$

5. The product of two numbers = 7304

One of the number of the product = 8

The other number of the product = 7304 ÷ 8

∴ The other number of the product = 913

```
8) 7304 (913
   72
   ---
   10
    8
   ---
    24
    24
   ---
     0
```

6. Beds were arranged in 10 halls = 360

Beds in each hall = 360 ÷ 10

∴ 36 beds were arranged in each hall.

```
10) 360 (36
    30
    ---
    60
    60
    ---
     0
```

7. We know that 1 week = 7 days

Total weeks in 175 days = 175 ÷ 7

∴ There are 25 weeks in 175 days

```
7) 175 (25
   14
   ---
   35
   35
   ---
    0
```

8. Mohan can run in one hour = 9 km

Total time taken to cover 387 km = 387 ÷ 9

∴ Mohan can run 387 km in 43 hrs.

```
9) 387 (43
   36
   ---
   27
   27
   ---
    0
```

9. Cost of 1 ice-cream = ₹ 3

Ice-cream can be purchased in ₹ 6000 = ₹ 6000 ÷ 3

∴ 2000 ice-cream can be purchased in ₹ 6000.

```
3) 6000 (2000
   6
   ---
   0000
```

10. Total number of pages in 8 books = 8416

Total number of pages in 1 book = 8416 ÷ 8

∴ Total number of pages in 1 book = 1052

```
8) 8416 (1052
   8
   ---
   41
   40
   ---
    16
    16
   ---
     0
```

Check Yourself

1. (a) $0 \div 50 = \mathbf{0}$ (b) $90 \div 1 = \mathbf{90}$

(c) $54 \div 54 = \mathbf{1}$ (d) $6755 \div 6755 = \mathbf{1}$

(e) $567 \div 1 = \mathbf{567}$ (f) $0 \div 636 = \mathbf{0}$

2. See in the answer sheet.

3.

(a)	$750 \div 10$	(i)	116	[464 ÷ 4]
(b)	$464 \div 4$	(ii)	0	[0 ÷ 25]
(c)	$135 \div 5$	(iii)	968	[3872 ÷ 4]
(d)	$3872 \div 4$	(iv)	75	[750 ÷ 10]
(e)	$0 \div 25$	(v)	27	[135 ÷ 5]

4. (a) $75 \div 75$ gives a quotient = **1** (b) $400 \div 10 = \mathbf{40}$

$$\begin{array}{r|l} 75 & 75 \\ \hline & 75 \\ \hline & 0 \end{array} \quad 1 \qquad \begin{array}{r|l} 10 & 400 \\ \hline & 400 \\ \hline & 0 \end{array} \quad 40$$

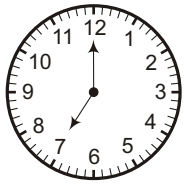
(c) $72 \div 9$ gives a quotient = **8** (d) If $54 \div \mathbf{6} = 9$, then is

$$\begin{array}{r|l} 9 & 72 \\ \hline & 72 \\ \hline & 0 \end{array} \quad 8 \qquad \begin{array}{r|l} 9 & 54 \\ \hline & 54 \\ \hline & 0 \end{array} \quad 6$$

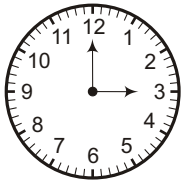
8. Time

Exercise 8.1

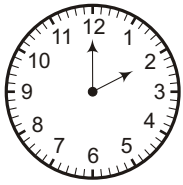
1. (a) In this clock, the long hand is on 12 and the short hand is on 7. It is 7 O' clock or 7 : 00.



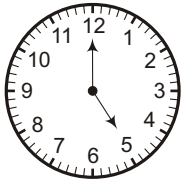
(b) In this clock, the long hand is on 12 and the short hand is on 3. It is 3 O' clock or 3 : 00.



(c) In this clock, the long hand is on 12 and the short hand is on 2. It is 2 O' clock or 2 : 00.



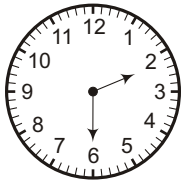
(d) In this clock, the long hand is on 12 and the short hand is on 5. It is 5 O' clock or 5 : 00.



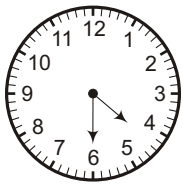
2. Do yourself

Exercise 8.2

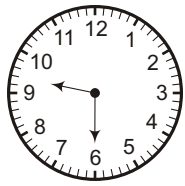
1. (a) The hour hand is between 2 and 3.
The minute hand is at 6.
The clock shows **2 : 30** or Half past 2.



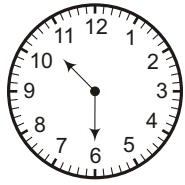
(b) The hour hand is between 4 and 5.
The minute hand is at 6.
The clock shows **4 : 30**
Half past 4.



(c) The hour hand is between 9 and 10.
The minute hand is at 6.
The clock shows **9 : 30**
Half past 9.



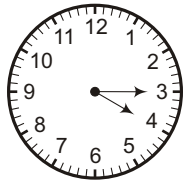
(d) The hour hand is between 10 and 11.
The minute hand is at 6.
The clock shows **10 : 30**
Half past 10.



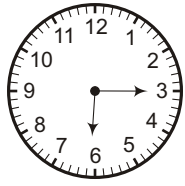
2. and **3.** do yourself

Exercise 8.3

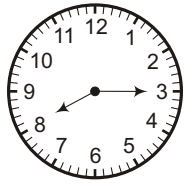
1. (a) The hour hand is in between 4 and 5.
The minute hand is at 3.
The clock shows 4 : 15.
It is quarter past 4.



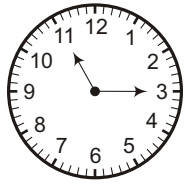
(b) The hour hand is in between 6 and 7.
The minute hand is at 3.
The clock shows 6 : 15.
It is quarter past 6.



(c) The hour hand is in between 8 and 9.
The minute hand is at 3.
The clock shows 8 : 15.
It is quarter past 8.



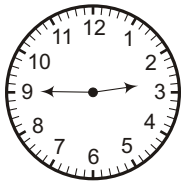
(d) The hour hand is in between 11 and 12.
The minute hand is at 3.
The clock shows 11 : 15.
It is quarter past 11.



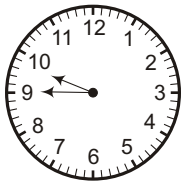
2. and **3.** Do yourself

Exercise 8.4

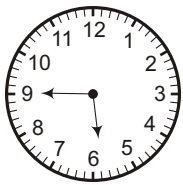
1. (a) The hour hand is between 2 and 3.
The minute hand is at 9.
The clock shows 2 : 45.
It is quarter to 3.



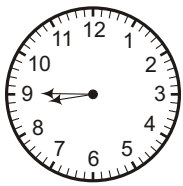
(b) The hour hand is between 9 and 10.
The minute hand is at 9.
The clock shows 9 : 45
It is quarter to 10.



(c) The hour hand is between 5 and 6.
The minute hand is at 9.
The clock shows 5 : 45
It is quarter to 6.



(d) The hour hand is between 8 and 9
The minute hand is at 9.
The clock shows 8 : 45
It is quarter to 9.



2. Do yourself

Exercise 8.5

1. (a) The shorter hand is in between 2 and 3.
Which means _____ minutes part 2 or _____ minutes to 3.
The longer hand is at 1 which indicates as 5 minutes
So, clock shows 2 : 05 or 5 minutes part 2.

(b) The shorter hand is in between 5 and 6.
Which means _____ minutes part 5 or _____ minutes to 6.
The longer hand is one subdivision before the 3.
So it indicates 14 minutes.
So, clock shows 5 : 14 or 14 minutes past 5.

(c) The shorter hand is in between 9 and 10

Which means _____ minutes past 9 or _____ minutes to 10.

The longer hand is two subdivision after the 5 which indicates 26 minutes 9 : 26

So, clock shows or 24 minutes part 9.

(d) The shorter hand is in between 12 and 1.

Which means _____ minutes part 12 and _____ minutes to 1. The longer hand is at 5 which means 25 minutes.

So, clock shows 12 : 25 or minutes part 12.

2. Do yourself

Exercise 8.6

1. We know that the hours in between midnight and noon are written with a.m. and the hours in between the noon and midnight are written with p.m.

(a) 4 : 00 a.m. (b) 10 : 00. a.m. (c) 2 : 00 (d) 3 : 00 p.m.

2. (a) Both are in between noon and midnight. So, starting from 12 : 00 with to the 4 : 00. 1, 2, 3 and 4.

So, there are four hours in between 12 : 00 noon and 4 : 00 p.m.

(b) Both times are in between midnight and noon.

So, Starting from 3 : 00 count to 8 : 00

4 : 00, 5 : 00, 6 : 00, 7 : 00, 8 : 00

So, there are 5 hours in between 3 : 00 a.m. to 8 : 00 a.m.

(c) Both times are in between midnight and noon, so, starting from 6 : 00 count to 10 : 00

7 : 00, 8 : 00, 9 : 00 and 10 : 00

So, there are 4 hours in between the 6 : 00 a.m. and 10 : 00 a.m.

(d) One time is in between noon to midnight and other is in between midnight to noon.

So we start counting hours from 10 : 00 with p.m. and a.m. 11 : 00 p.m. 12 : a.m., 1 : 00 a.m., 2 : 00 a.m., 3 : 00 a.m., 4 : 00 a.m. 5 : 00 a.m., 6 : 00 a.m. 7 : 00 a.m.

So, there are 7 hours in between the 10 : 00 p.m. and 7 : 00 a.m.

3. As per answersheet

4. (a) **10 : 50 in the Night** Lies in between noon to and midnight so, we write the time between noon and midnight with p.m. So, 10 : 50 p.m.

(b) **2 O'clock at Night** Lies in between midnight and noon so, we write the time between midnight and noon with p.m.

So, 10 : 50 p.m.

(c) **11 : 46 Before Noon** Lies in between midnight and noon

So, we write the time between midnight and noon

So, 9 : 00 a.m.

(d) Do yourself

Exercise 8.7

1. As per answersheet **2.** Do yourself

3.

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

(a) Sundays fall on 6,13, 20 and 27. So there are four Sundays.

(b) Friday falls on 4, 11, 18 and 25.

(c) This is Tuesday on 1 date.

(d) 10 Falls on Tuesday.

(e) 27 Falls on Sunday.

Exercise 8.8

1. (a) $\because$ 1 Second = $\frac{1}{60}$ minutes

$\therefore$ 60 seconds = $\frac{60}{60}$ minutes = **1** minutes

(b) $\because$ 1 hours = 60 minutes

So, **60** minutes = 1 hour

(c) $\because$ 1 day = 24 hour

So, 24 hours = **1** day

(d) $\because$ 1 week = 7 days

So, **7** days = 1 week

(e) ∵ 1 non-leap year = 365 days

So, A non-leap year has **365** days.

(f) ∵ 1 leap year = 366 days

So, A leap years has **366** days.

2. (a) 1 month = 30 days

2 month 3 days = $2 \times 30 + 3$ days = $60 + 3 = 63$ days

(b) 1 month = 30 days

6 months 10 days = $6 \times 30 + 10$ days = $180 + 10$ days = 190 days

(c) 1 week = 7 days

5 weeks 4 days = $5 \times 7 + 4$ days = $35 + 4 = 39$ days

3. (a) 1 hour = 60 minutes

3 hours = $3 \times 60 = 180$ minutes

(b) 1 hour = 60 minutes

4 hours = $4 \times 60 = 240$ minutes

(c) 1 hour = 60 minutes

5 hours = $5 \times 60 = 300$ minutes

(d) 1 hour = 60 minutes

6 hours 6 min = $6 \times 60 + 6 = 366$ minutes

(e) 1 hour = 60 minutes

2 hours 10 minutes = $2 \times 60 + 10 = 130$ minutes

(f) 1 hour = 60 minutes

5 hours 5 min = $5 \times 60 + 5 = 305$ minutes

4. (a) 1 min = 60 sec

3 min = $3 \times 60 = 180$ sec

(b) 1 min = 60 sec

10 min 10 sec = $10 \times 60 + 10 = 610$ sec

(c) 1 min = 60 sec

5 min 10 sec = $5 \times 60 + 10 = 310$ sec

5. (a) 1 day = 24 hours

3 days = $3 \times 24 = 72$ hours

(b) 1 day = 24 hours

4 days = $4 \times 24 = 96$ hours

(c) 1 day = 24 hours

5 days = $5 \times 24 = 120$

Check Yourself

1. (a) In a leap year, February has **29** days.

(b) **May** is the fifth month of the year.

(c) The month of **July** and August come after one another which have 1 days each.

(d) There are **30** days in the month of September

2. As per answersheet.

3. (a) Harry goes to school at (8 a.m./ p.m.)
Because school start in the morning

(b) Nancy takes her dinner at (9 a.m. / p.m.)
Because dinner is eaten at night.

(c) Jufie goes to play tennis at (4 p.m. / a.m.)
Playing at 4 a.m. is not possible.

(d) My father comes back from office at (6 : 30 p.m. / a.m.)
We write the time at evening with p.m.

(e) Some takes his breakfast at (7 p.m. / a.m.)
Breakfast is eaten at morning.

4. As per answersheet.

9. Money

Exercise 9.1

1. (a) Rupees = 82
Paise = 15
∴ ₹ 82.15

(b) Rupees = 160
Paise = 55
∴ ₹ 160.55

(c) Rupees = 5
Paise = 35
∴ ₹ 5.35

(d) Rupees = 15
Paise = 8
∴ ₹ 15.08

2. (a) Rupees = 15 Paise = 9
Fifteen rupees nine paise

(b) Rupees = 92 Paise = 15
Ninety two rupees and fifteen paise

(c) Rupees = 25 Paise = 50

Twenty five rupees fifty paise

(d) Rupees = 7 Paise = 85

Seven rupees eighty five paise.

3. (a) ₹ $15.07 = 15 \times 100 + 7$ paise = 1507 paise

$\therefore$ ✓

(b) ₹ 1556 paise = ₹ $\frac{1556}{100}$ = ₹ 15.56

$\therefore$ ×

(c) ₹ $10.51 = 10 \times 1000 + 51$ paise = 1051 Paise

$\therefore$ ✓

(d) 385 paise = ₹ $\frac{385}{100}$ = ₹ 3.85

$\therefore$ ✓

(e) 1640 paise = ₹ $\frac{1640}{100}$ = ₹ 16.40

$\therefore$ ×

(f) 365 paise = ₹ $\frac{365}{100}$ = ₹ 3.65

$\therefore$ ×

4. (a) $\because$ ₹ 1 = 100 paise

$\therefore$ ₹ $8 = 8 \times 100$ paise

= 800 paise

(b) $\because$ ₹ 1 = 100 paise

$\therefore$ ₹ $10 = 10 \times 100$ paise

= 1000 paise

(c) $\because$ ₹ 1 = 100 paise

$\therefore$ ₹ $7.50 = 7.50 \times 100$ paise

= 750 paise

(d) $\because$ ₹ 1 = 100 paise

$\therefore$ ₹ $8.40 = 8.40 \times 100$

= 840 paise

(e) $\because$ ₹ 1 = 100 paise

$\therefore$ ₹ $13.30 = 13.30 \times 100$ paise

= 1330 paise

(f) $\because$ ₹ 1 = 100 paise

$\therefore$ ₹ $60.10 = 60.10 \times 100$ paise

= 6010 paise

5. (a) $\because$ 1 p = ₹ $\frac{1}{100}$

$\therefore$ 640 p = ₹ $\frac{640}{100}$ = ₹ 6.40

Rupees = 6, Paise = 40

(b) $\because$ 1 p = ₹ $\frac{1}{100}$

$\therefore$ 960 p = ₹ $\frac{960}{100}$ = ₹ 9.60

Rupees = 9, Paise = 60

(c) $\because$ 1 p = ₹ $\frac{1}{100}$

$\therefore$ 4010 p = ₹ $\frac{4010}{100}$ = ₹ 40.10

Rupees = 40, Paise = 10

(d) $\because$ 1 p = ₹ $\frac{1}{100}$

$\therefore$ 7005 p = ₹ $\frac{7005}{100}$ = ₹ 70.05

Rupees = 70, Paise = 5

Exercise 9.2

1. (a)

	₹ 40 . 45
+	₹ 20 . 65
	₹ 61 . 10

(b)

	₹ 25 . 20
+	₹ 46 . 05
	₹ 71 . 25

(c)

	₹ 60 . 50
+	₹ 28 . 75
	₹ 89 . 25

(d)

₹	50 . 79
₹	89 . 82
+ ₹	23 . 51
	₹ 164 . 12

(d)

₹	92 . 08
₹	12 . 97
+ ₹	18 . 26
	₹ 123 . 31

(f)

₹	75 . 90
₹	28 . 86
+ ₹	29 . 38
	₹ 134 . 14

2. (a)

	₹ 100 . 00
₹	60 . 50
+ ₹	19 . 80
	₹ 180 . 30

(b)

	₹ 25 . 25
	₹ 30 . 96
+	₹ 41 . 97
	₹ 98 . 18

(c)

	₹ 108 . 50
₹	16 . 59
+ ₹	121 . 70
	₹ 246 . 79

(d)

₹	80 . 75
₹	20 . 09
+ ₹	45 . 60
	₹ 146 . 44

(e)

	₹ 200 . 00
	₹ 300 . 00
+	₹ 100 . 10
	₹ 600 . 10

(f)

₹	29 . 38
₹	49 . 56
+ ₹	29 . 94
	₹ 108 . 88

3. (a) 95 P + 80 P + 70 P = 245 P

$\because$ 1 P = ₹ $\frac{1}{100}$

$\therefore$ 245 P = ₹ $\frac{245}{100}$ = ₹ 2.45

(b) $95\ P + 35\ P + 25\ P = 155\ P$

$\because \quad 1\ P = ₹\ \frac{1}{100}$

$\therefore \quad 155\ P = ₹\ \frac{155}{100} = ₹\ 1.55$

(c) $75\ P + 20\ P + 80\ P = 175\ P$

$\because \quad 1\ P = ₹\ \frac{1}{100}$

$\therefore \quad 175\ P = ₹\ \frac{175}{100} = ₹\ 1.75$

(d) $75\ P + 85\ P + 95\ P = 255\ P$

$\because \quad 1\ P = ₹\ \frac{1}{100}$

$\therefore \quad 255\ P = ₹\ \frac{255}{100} = ₹\ 2.55$

(e) $45\ P + 16\ P + 35\ P = 96\ P$

$\because \quad 1\ P = ₹\ \frac{1}{100}$

$\therefore \quad 96\ P = ₹\ \frac{96}{100} = ₹\ 0.96$

(f) $25\ P + 65\ P + 55\ P = 145\ P$

$\because \quad 1\ P = ₹\ \frac{1}{100}$

$\therefore \quad 145\ P = ₹\ \frac{145}{100} = ₹\ 1.45$

4. (a)
$$\begin{array}{r} ₹\ 7\overset{(6)}{\not{7}}\ .\ \overset{(11)(10)}{\not{2}\not{0}} \\ -\ ₹\ 44\ .\ 85 \\ \hline ₹\ 32\ .\ 35 \end{array}$$

(b)
$$\begin{array}{r} ₹\ \overset{(8)(10)}{\not{9}\not{0}}\ .\ 88 \\ -\ ₹\ 89\ .\ 05 \\ \hline ₹\ \ 1\ .\ 83 \end{array}$$

(c)
$$\begin{array}{r} ₹\ \overset{(0)(17)(11)}{\not{1}\not{8}\ .\ \not{1}\not{5}} \\ -\ ₹\ \ 8\ .\ 85 \\ \hline ₹\ \ 9\ .\ 30 \end{array}$$

(d)
$$\begin{array}{r} ₹\ \overset{(9)(9)}{\not{1}}\overset{(9)(10)}{\not{0}\not{0}}\ \not{.}\ 00 \\ ₹\ -\ 90\ .\ 99 \\ \hline ₹\ \ 9\ .\ 01 \end{array}$$

(e)
$$\begin{array}{r} ₹\ \overset{(10)(0)(11)}{\not{1}\not{0}\not{1}}\ \not{.}\ 10 \\ ₹\ -\ 90\ .\ 90 \\ \hline ₹\ \ 10\ .\ 20 \end{array}$$

(f)
$$\begin{array}{r} ₹\ \overset{(7)(17)}{\not{4}\not{8}}\ \not{.} \\ ₹\ \not{2}\not{5}\ .\ \\ \hline ₹\ 22\ .\ \end{array}$$

5. (a)
$$\begin{array}{r} \overset{15}{\cancel{₹\ 16}}\ .\ \overset{18}{\cancel{00}} \\ -\ ₹\ 9\ .\ 95 \\ \hline ₹\ 6\ .\ 95 \end{array}$$

(b)
$$\begin{array}{r} \overset{4}{\cancel{₹\ 50}}\ .\ \overset{9}{\cancel{00}} \\ -\ ₹\ 49\ .\ 99 \\ \hline ₹\ 00\ .\ 01 \end{array}$$

(c)
$$\begin{array}{r} \overset{2}{\cancel{₹\ 30}}\ .\ \overset{9}{\cancel{05}} \\ -\ ₹\ 18\ .\ 96 \\ \hline ₹\ 11\ .\ 09 \end{array}$$

(d)
$$\begin{array}{r} ₹\ 12\ .\ \overset{7}{\cancel{80}} \\ -\ ₹\ 2\ .\ 25 \\ \hline ₹\ 10\ .\ 55 \end{array}$$

(e)
$$\begin{array}{r} \overset{1}{\cancel{₹\ 27}}\ .\ 05 \\ -\ ₹\ 19\ .\ 00 \\ \hline ₹\ 08\ .\ 05 \end{array}$$

(f)
$$\begin{array}{r} \overset{9}{\cancel{₹\ 100}}\ .\ 00 \\ -\ ₹\ 69\ .\ 10 \\ \hline ₹\ 30\ .\ 90 \end{array}$$

6. (a)
$$\begin{array}{r} ₹\ 19\ .\ 00 \\ -\ ₹\ 15\ .\ 00 \\ \hline ₹\ 04\ .\ 00 \end{array}$$

(b)
$$\begin{array}{r} \overset{4}{\cancel{₹\ 50}}\ .\ \overset{9}{\cancel{00}} \\ -\ ₹\ 24\ .\ 85 \\ \hline ₹\ 25\ .\ 15 \end{array}$$

(c)
$$\begin{array}{r} \overset{9}{\cancel{₹\ 100}}\ .\ \overset{9}{\cancel{00}} \\ -\ ₹\ 85\ .\ 25 \\ \hline ₹\ 14\ .\ 75 \end{array}$$

(d)
$$\begin{array}{r} \overset{6}{\cancel{₹\ 70}}\ .\ \overset{10}{\cancel{10}} \\ -\ ₹\ 65\ .\ 05 \\ \hline ₹\ 5\ .\ 05 \end{array}$$

(e)
$$\begin{array}{r} \overset{1}{\cancel{₹\ 20}}\ .\ \overset{10}{\cancel{00}} \\ -\ ₹\ 19\ .\ 90 \\ \hline ₹\ 00\ .\ 10 \end{array}$$

(f)
$$\begin{array}{r} \overset{2}{\cancel{₹\ 30}}\ .\ \overset{9}{\cancel{00}} \\ -\ ₹\ 5\ .\ 95 \\ \hline ₹\ 24\ .\ 05 \end{array}$$

Exercise 9.3

1. (a)
$$\begin{array}{r} ₹\ \overset{1}{2}5 \\ \times\ 3 \\ \hline ₹\ 75 \end{array}$$

(b)
$$\begin{array}{r} ₹\ \overset{1}{1}5 \\ \times\ 3 \\ \hline ₹\ 45 \end{array}$$

(c)
$$\begin{array}{r} ₹\ \overset{1}{2}1\ .\ 20 \\ \times\ 7 \\ \hline ₹\ 148.\ 40 \end{array}$$

(d)
$$\begin{array}{r} ₹\ \overset{5}{7}5\ .\ 80 \\ \times\ 9 \\ \hline ₹\ 682\ .\ 20 \end{array}$$

(e)
$$\begin{array}{r} ₹\ \overset{2}{6}5\ .\ 9\overset{2}{6} \\ \times\ 4 \\ \hline ₹\ 263\ .\ 84 \end{array}$$

(f)
$$\begin{array}{r} ₹\ \overset{5}{2}9\ .\ 9\overset{5}{9} \\ \times\ 6 \\ \hline ₹\ 179.\ 94 \end{array}$$

2. (a)
$$\begin{array}{r} ₹\ \overset{2}{1}4\ .\ 90 \\ \times\ 6 \\ \hline ₹\ 89\ .\ 40 \end{array}$$

(b)
$$\begin{array}{r} ₹\ \overset{1}{1}2\ .\ \overset{3}{1}5 \\ \times\ 7 \\ \hline ₹\ 85\ .\ 05 \end{array}$$

(c)
$$\begin{array}{r} ₹\ \overset{2}{2}0\ .\ \overset{1}{7}5 \\ \times\ 3 \\ \hline ₹\ 62\ .\ 25 \end{array}$$

(d) ₹ 15 . 15 × 9 = ₹ 136 . 35

(e) ₹ 10 . 50 × 4 = ₹ 42 . 00

(f) ₹ 108 . 35 × 8 = ₹ 866 . 80

3. (a) 2) ₹ 52 (₹ 26 ; − 4 ; 12 ; − 12 ; × ; = ₹ 26

(b) 4) ₹ 32.40 (₹ 8.10 ; − 32 ; 40 ; − 40 ; × ; = ₹ 8.10

(c) 5) ₹ 40.75 (₹ 8.15 ; − 40 ; 7 5 ; 25 ; − 25 ; × ; = ₹ 8.15

(d) 10) ₹ 10.80 (₹ 1.08 ; − 10 ; 80 ; − 80 ; × ; = ₹ 1.08

(e) 3) ₹ 18.90 (₹ 6.30 ; − 18 ; 9 ; − 9 ; 00 ; = ₹ 6.30

(f) 6) ₹ 29.40 (₹ 4.9 ; − 24 ; 54 ; − 54 ; 00 ; = ₹ 4.90

4. (a) 9) ₹ 27.72 (₹ 3.08 ; − 27 ; 72 ; − 72 ; × ; = ₹ 3.08

(b) 7) ₹ 85.75 (₹ 12.25 ; − 7 ; 15 ; − 14 ; 17 ; − 14 ; 35 ; − 35 ; × ; = ₹ 12.25

(c) 3) ₹ 48.30 (₹ 16.10 ; − 3 ; 18 ; − 18 ; 3 ; − 3 ; 00 ; = ₹ 16.10

(d) $6\overline{)₹\ 21.60}$ ₹ 3.60
− 18
36
− 36
00
= ₹ 3.60

(e) $5\overline{)₹\ 34.50}$ ₹ 6.90
− 30
45
− 45
00
= ₹ 6.90

(f) $2\overline{)₹\ 58.40}$ ₹ 29.20
− 4
18
− 18
4
− 4
00
= ₹ 29.20

5. (a) $4\overline{)₹\ 64.40}$ ₹ 16.10
− 4
24
− 24
4
4
00
= ₹ 16.10

(b) $8\overline{)₹\ 28.00}$ ₹ 3.50
− 24
40
− 40
00
= ₹ 3.50

(c) $5\overline{)₹\ 42.05}$ ₹ 8.41
− 40
20
− 20
5
− 5
×
= ₹ 8.41

Exercise 9.4

1. Mannat purchased a bat = ₹ 94.50
Mannat purchased a ball = ₹ 25.50
Total amount she spend

(1)(1)
₹ 94 . 50
+ ₹ 25 . 50
₹ 120 . 00

2. Mummy gave me = ₹ 50.00
Daddy gave me = ₹ 25.50
Elder brother gave me = ₹ 25.00
Total money I have

(1)(1)
₹ 50 . 00
₹ 25 . 50
+ ₹ 25 . 50
₹ 101 . 00

3. I bought birthday gift = ₹ 35
I gave money to the shopkeeper = ₹ 100
Shopkeeper returned money

(9)(10)
₹ 100
− ₹ 35
₹ 65

4. Radha bought bread = ₹ 20.50

Eggs = ₹ 96.00

Biscuits = 13.00

He spend money

```
  ₹  20 . 50
  ₹  96 . 00
+ ₹  13 . 00
  ₹ 129 . 50
```

5. A boy paid = ₹ 10.00

He got back = ₹ 5.50

The cost of pen

```
    ⑨ ⑩
  ₹ 10 . 00
- ₹  5 . 50
  ₹  4 . 50
```

6. Rohit bought sweets for = ₹ 154.50

He gave money to the shopkeeper = ₹ 170

The money returned by the shopkeeper

```
    ⑥⑨ ⑩
  ₹ 170 . 00
- ₹ 154 . 50
  ₹  15 . 50
```

7. The sum of ₹ 96.20 and ₹ 34.75

```
    ①
  ₹  96 . 20
+ ₹  34 . 75
  ₹ 130 . 95
```

Now subtract ₹ 125.00 from ₹ 130.95

```
     ②⑩
  ₹ 130 . 95
- ₹ 125 . 00
  ₹   5 . 95
```

8.

```
     ⑧ ⑮
  ₹ 49 . 50
+ ₹ 24 . 60
  ₹ 24 . 90
```

So, ₹ 49.50 is ₹ 24.90 greater than the ₹ 24.60.

Check Yourself

1. (a) ∵ 1 rupee = 100 paise

∴ 4 rupees 25 paise = $4 \times 100 + 25$ paise = 425 paise

(b) ₹ 44.60 = 44 rupees 60 paise

(c) ₹ 1 = 100 paise

₹ 5 = 5 × 100 = 500 paise

20 paise coin required to make ₹ 5 = $\frac{500}{20}$ paise = 25 coins

(d) 1 paise = ₹ $\frac{1}{100}$

695 paise = ₹ $\frac{695}{100}$ = ₹ 6.95

(e) 1 paise = ₹ $\frac{1}{100}$

14 paise = ₹ $\frac{1}{100}$ = ₹ 0.14

2. (a) 7 rupees 70 paise = ₹ 7.70

So, (iv)

(b) 7 rupees 77 paise = ₹ 7.77

So, (iii)

(c) 7 rupee = ₹ 7.00

So, (i)

(d) 7 rupees 7 paise = ₹ 7.07

So, (ii)

3. (a) We write 6 rupees as ₹ 6 so

₹ is the correct symbol to represent rupees.

So, (ii)

(b) One pen costs = ₹ 5.50

The cost of 8 pens = ₹ $\overset{④}{5}$. 50

× 8

₹ 44 . 00

So, 8 pens cost = ₹ 44.00, So (i)

(c) Neha buys a pencil = ₹ 1.25

and an eraser = ₹ 1.00

She gives ₹ 5.00 to shopkeeper so she will get back money

= ₹ 5.00 – (₹ 1.25 + ₹ 1.00)

= ₹ 5.00 – ₹ 2.25 = ₹ 2.25

So, she will get ₹ 2.25 in return. So, (i)

(d) We can write 7 rupees 60 paise

as ₹ 7.60 and 760 paise

So, (iii) is the correct option.

10. Fractional Number

Exercise 10.1

1. Only figure (a) is divided into two equal parts so (a) is to be ticked

2. Do yourself

3. (a) In the given only one part is shaded out of six parts. So the fraction showing the shaded part = $\frac{1}{6}$

(b) In the given figure three parts are shaded out of eight parts.

So the fraction showing the shaded part = $\frac{3}{8}$.

(c) In the given figure two parts are shaded out of six parts. So the fraction showing the shaded part = $\frac{2}{6}$.

Exercise 10.2

1. (a) $\frac{1}{3}$ of 15 strawberries = $\frac{1}{3} \times 15 = 5$ strawberries

So, circle 5 strawberries.

(b) $\frac{1}{4}$ of 12 apples = $\frac{1}{4} \times 12 = 3$ apples

So, circle 3 apples.

2. As per answer sheet.

3. (a) $\frac{1}{5}$ → Numerator = 1, Denominator = 5

(b) $\frac{9}{15}$ → Numerator = 9, Denominator = 15

(c) $\frac{7}{10}$ → Numerator = 7, Denominator = 10

(d) $\frac{5}{11}$ → Numerator = 5, Denominator = 11

4. (a) Numerator = 6
Denominator = 11
So, the fraction = $\frac{6}{11}$

(b) Numerator = 7
Denominator = 15
So, the fraction = $\frac{7}{15}$

(c) Numerator = 5
Denominator = 6
So, the fraction = $\frac{5}{6}$

(d) Numerator = 1
Denominator = 7
So, the fraction = $\frac{1}{7}$

(e) Numerator = 2
Denominator = 9
So, the fraction = $\frac{2}{9}$

(f) Numerator = 2
Denominator = 3
So, the fraction = $\frac{2}{3}$

(g) Numerator = 1
Denominator = 2
So, the fraction = $\frac{1}{2}$

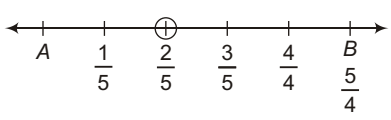
(h) Numerator = 3
Denominator = 9
So, the fraction = $\frac{3}{9}$ or $\frac{1}{3}$

(i) Numerator = 1
Denominator = 6
So, the fraction = $\frac{1}{6}$

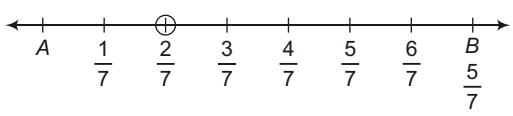
(j) Numerator = 5
Denominator = 8
So, the fraction = $\frac{5}{8}$

Exercise 10.3

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



(b) $\frac{2}{7}$



2. (a) Two parts are coloured out of six. So the fraction $\frac{2}{6}$ will represent the segment correctly.

(b) Six part are coloured out of ten. So the fraction $\frac{6}{10}$ will represent the segment correctly.

3. (a) Only $\frac{1}{2}$ has different denominator = 2, which is not equal to 3, so, $\frac{1}{2}$ is unlike fraction.

(b) Only $\frac{2}{3}$ has different denominator = 3, which is not equal to 10, so, $\frac{2}{3}$ is unlike fraction.

(c) Only $\frac{2}{12}$ has different denominator = 12, which is not equal to 13, so $\frac{1}{12}$ is unlike fraction.

(d) Only $\frac{2}{5}$ has different denominator = 5, which is not equal to 9, so $\frac{2}{5}$ is unlike fraction .

(e) Only $\frac{6}{7}$ has different denominator = 7, which is not equal to 5, so $\frac{6}{7}$ is unlike fraction.

(f) Only $\frac{3}{7}$ has different denominator = 7, which is not equal to 8, so $\frac{3}{7}$ is unlike fraction.

4. (a) $\frac{4}{3}$, here numerator is greater than the denominator so the fraction is improper fraction.

I

(b) $\frac{6}{5}$ here numerator is greater than the denominator so the fraction is improper fraction.

I

(c) $\frac{8}{6}$, here numerator is greater than the denominator so the fraction is improper fraction.

I

(d) $\frac{3}{6}$, here numerator is less than the denominator so, the fraction is proper fraction.

P

(e) $\frac{2}{9}$, here numerator is less than the denominator so, the fraction is proper fraction.

P

(f) $\frac{3}{8}$, here numerator is less than the denominator so, the fraction is proper fraction.

P

(g) $\frac{3}{10}$, here numerator is less than the denominator so, the fraction is proper fraction.

P

(h) $\frac{2}{13}$, here numerator is less than the denominator so, the fraction is proper fraction.

P

5. (a) $\frac{7}{5}$, here numerator is not 1. So, it is not unit fraction. ×

(b) $\frac{3}{2}$, here numerator is not 1, so, it is not unit fraction. ×

(c) $\frac{1}{8}$, here numerator is 1, so it is unit fraction. ✓

(d) $\frac{9}{5}$, here numerator is not 1, so it is not unit fraction. ×

(e) $\frac{1}{13}$, here numerator is 1, so it is unit fraction. ✓

(f) $\frac{1}{21}$, here numerator is 1, so it is unit fraction. ✓

(g) $\frac{13}{6}$, here numerator is not 1, so it is not unit fraction. ×

(h) $\frac{1}{2}$, here numerator is 1, so it is unit fraction. ✓

6. (a) $\frac{1}{6}+\frac{1}{6}=\frac{2}{6}, \frac{2}{6}+\frac{1}{6}=\frac{3}{6}, \frac{3}{6}+\frac{1}{6}=\mathbf{\frac{4}{6}}$

(b) $\frac{1}{15}+\frac{3}{15}=\frac{4}{15}, \frac{4}{15}+\frac{3}{15}=\frac{7}{15}, \frac{7}{15}+\frac{3}{15}=\mathbf{\frac{10}{15}}$

(c) $\frac{3}{10}+\frac{1}{10}=\frac{4}{10}, \frac{4}{10}+\frac{1}{10}=\frac{5}{10}, \frac{5}{10}+\frac{1}{10}=\mathbf{\frac{6}{10}}$

(d) $\frac{3}{10}+\frac{1}{10}=\frac{4}{10}, \frac{4}{10}+\frac{1}{10}=\frac{5}{10}, \frac{5}{10}+\frac{1}{10}=\mathbf{\frac{6}{10}}$

(e) $\frac{5}{21}+\frac{4}{21}=\frac{9}{21}, \frac{9}{21}+\frac{4}{21}=\frac{13}{21}, \frac{13}{21}+\frac{4}{21}=\mathbf{\frac{17}{21}}$

(f) $\frac{8}{19}+\frac{2}{19}=\frac{10}{19}, \frac{10}{19}+\frac{2}{19}=\frac{12}{19}, \frac{12}{19}+\frac{2}{19}=\mathbf{\frac{14}{19}}$

Exercise 10.4

1. (a) $\frac{1\times2}{3\times2}=\frac{2}{6}, \frac{1\times3}{3\times3}=\frac{3}{9}, \frac{1\times4}{3\times4}=\frac{4}{12}, \frac{1\times5}{3\times5}=\mathbf{\frac{5}{15}}, \frac{1\times6}{3\times6}=\mathbf{\frac{6}{18}}$

$\frac{1\times7}{3\times7}=\mathbf{\frac{7}{21}}$

(b) $\frac{1\times2}{4\times2}=\frac{2}{8}, \frac{1\times3}{4\times3}=\frac{3}{12}, \frac{1\times4}{4\times4}=\frac{4}{16}, \frac{1\times5}{4\times5}=\mathbf{\frac{5}{20}}, \frac{1\times6}{4\times6}=\mathbf{\frac{6}{24}}$,

$\frac{1\times7}{4\times7}=\mathbf{\frac{7}{28}}$

(c) $\frac{2\times2}{5\times2}=\frac{4}{10}, \frac{2\times3}{5\times3}=\frac{6}{15}, \frac{2\times4}{5\times4}=\frac{8}{20}, \frac{2\times5}{5\times5}=\mathbf{\frac{10}{25}}, \frac{2\times6}{5\times6}=\mathbf{\frac{12}{30}}$,

$\frac{2\times7}{5\times7}=\mathbf{\frac{14}{35}}$

(d) $\frac{1\times2}{7\times2}=\frac{2}{14}, \frac{1\times3}{7\times3}=\frac{3}{21}, \frac{1\times4}{7\times4}=\frac{4}{28}, \frac{1\times5}{7\times5}=\mathbf{\frac{5}{35}}, \frac{1\times6}{7\times6}=\mathbf{\frac{6}{42}}$

$\frac{1\times7}{7\times7}=\mathbf{\frac{7}{49}}$

2. (a) $\frac{12\div6}{54\div6}=\frac{2}{9}=\frac{2}{9}$

So, equivalent

(b) $\frac{3}{8}, \frac{27}{72} \Rightarrow \frac{3\times9}{8\times9} \Rightarrow \frac{27}{72}=\frac{27}{72}$

So, equivalent.

(c) $\frac{3}{7}, \frac{12}{30}$

$\frac{3\times 4}{7\times 4} = \frac{12}{28} \Rightarrow \frac{12}{28} \neq \frac{12}{30}$

So, not equivalent

(d) $\frac{4}{5}, \frac{8}{20}$

$\frac{4\times 2}{5\times 2} = \frac{8}{10} \Rightarrow \frac{8}{10} \neq \frac{8}{20}$

So, not equivalent

4. (a) Since denominator are same so compare the numerator

$\because \quad 2 < 3$

$\therefore \quad \frac{2}{9} \boxed{<} \frac{3}{9}$

(b) Since denominator are same so compare the numerator

$\because \quad 4 < 6$

$\therefore \quad \frac{4}{13} \boxed{<} \frac{6}{13}$

(c) Since denominator are same so compare the numerator

$\because \quad 12 > 16$

$\therefore \quad \frac{12}{31} \boxed{<} \frac{16}{31}$

(d) Since denominator are same so compare the numerator

$\because \quad 6 > 5$

$\therefore \quad \frac{6}{7} \boxed{>} \frac{5}{7}$

5. (a) Since denominators are same so we compare the numerators

$1 < 3 < 6 < 8$

So, $\frac{8}{8}$ is the greatest fraction among.

(b) Since denominators are same so we compare the numerators

$2 < 7 < 8 < 9$

So, $\frac{9}{10}$ is the greatest fraction among.

(c) Since denominators are same so we compare the numerators

$1 < 2 < 3 < 4$

So, $\frac{4}{5}$ is the greatest fraction among.

6. (a) Since denominators are same so we compare the numerators.

$$4 > 3 > 2 > 1$$

So, $\frac{1}{7}$ is the smallest fraction among.

(b) Since denominators are same so we compare the numerators

$$9 > 6 > 4 > 3$$

So, $\frac{3}{11}$ is the smallest fraction among.

(c) Since denominators are same so we compare the numerators

$$5 > 4 > 3 > 2$$

So, $\frac{2}{9}$ is the smallest fraction among.

7. (a) Since denominators are same so we compare the numerators

$$1 < 3 < 5 < 6$$

So, the ascending order is : $\frac{1}{7} < \frac{3}{7} < \frac{5}{7} < \frac{6}{7}$

(b) Since denominators are same so we compare the numerators

$$1 < 3 < 4 < 7$$

So, the ascending order is : $\frac{1}{8} < \frac{3}{8} < \frac{4}{8} < \frac{7}{8}$

(c) Since denominators are same so we compare the numerators

$$2 < 3 < 4 < 5$$

So, the ascending order is : $\frac{2}{9} < \frac{3}{9} < \frac{4}{9} < \frac{5}{9}$

8. (a) Since denominators are same so we compare the numerators

$$6 > 4 > 2$$

So, the descending order is : $\frac{6}{9} > \frac{4}{9} > \frac{2}{9}$

(b) Since denominators are same so we compare the numerators

$$6 > 3 > 2$$

So, the descending order is : $\frac{6}{7} > \frac{3}{7} > \frac{2}{7}$

(c) Since denominators are same so we compare the numerators

$$7 > 5 > 1$$

So, the descending order is : $\frac{7}{11} > \frac{5}{11} > \frac{1}{11}$

Exercise 10.5

1. (a) Since the numerator are same. So we compare the denominators

$$8 > 6 > 4 > 3$$

Here the fraction having the smaller denominator is the greater.

So, $\frac{1}{3}$ is the greatest fraction among.

(b) Since the numerators are same so we compare the denominators

$$17 > 13 > 11 > 10$$

Here the fraction having the smaller denominator is the greater

So, $\frac{3}{10}$ is the greatest fraction among.

(c) Since the numerators are same. so we compare the denominators

$$17 > 13 > 11 > 9$$

Here the fraction having the smaller denominators is the greater

So, $\frac{5}{9}$ is the greatest fraction among.

2. (a) Since the numerators are same. So, we compare the denominators

$$2 > 11 > 13 > 15$$

Here the fraction having the greater denominators is the smaller.

So, $\frac{1}{15}$ is the smallest fraction among.

(b) Since the numerators are same. So, we compare the denominators

$$12 > 11 > 10 > 7$$

Here the fraction having the greater denominator is the smaller.

So, $\frac{2}{12}$ is the smallest fraction among.

(c) Since the numerators are same. So, we compare the denominators

$$7 > 6 > 5 > 4$$

Here fraction having the greater denominator is the smaller.

So, $\frac{3}{7}$ is the smallest fraction among.

3. (a) Since the numerators are same we compare the denominators

$$10 > 9 > 8 > 2$$

Here the fraction having the smaller denominators is the greater

So, the ascending order is : $\frac{1}{10} < \frac{1}{9} < \frac{1}{8} < \frac{1}{2}$

(b) Since the numerators are same so, we compare the denominators

$$15 > 13 > 9 > 2$$

Here the fraction having the smaller denominators is the greater so the ascending order is : $\frac{2}{15} < \frac{2}{13} < \frac{2}{9} < \frac{2}{2}$

(c) Since the numerators are same. so, we compare the denominators

$$10 > 7 > 5 > 4$$

Here the fraction having the smaller denominators is the greater so the ascending order is : $\frac{3}{10} < \frac{3}{7} < \frac{3}{5} < \frac{3}{4}$

4. (a) Since the numerators are same so we compare the denominators

$$2 < 7 < 8 < 9$$

Here the fraction having the smaller denominators is greater

So the descending order is : $\frac{1}{2} > \frac{1}{7} > \frac{1}{8} > \frac{1}{9}$

(b) Since the numerators are same. So we compare the denominators

$$3 < 7 < 5 < 9$$

Here the descending order is : $\frac{2}{3} > \frac{2}{7} > \frac{2}{5} > \frac{2}{9}$

(c) Since the numerators are same So, we compare the denominators.

$$4 < 5 < 7 < 9$$

Here fraction having the greater denominator is the smaller

So, the descending order is : $\frac{3}{4} > \frac{3}{5} > \frac{3}{7} > \frac{3}{9}$

Exercise 10.6

1. (a) Since the denominators are same

So, we add the numerators directly

$$\frac{1}{3} + \frac{1}{3} = \frac{1+1}{3} = \frac{2}{3}$$

(b) Since the denominators are same

So, we add the numerators directly

$$\frac{1}{5} + \frac{2}{5} = \frac{1+2}{5} = \frac{3}{5}$$

(c) Since the denominators are same

So, we add the numerators directly

$$\frac{5}{9} + \frac{2}{9} = \frac{5+2}{9} = \frac{7}{9}$$

(d) Since the denominators are same

So, we add the numerators directly

$$\frac{2}{6} + \frac{3}{6} = \frac{2+3}{6} = \frac{5}{6}$$

(e) Since the denominators are same

So, we add the numerators directly

$$\frac{1}{10} + \frac{3}{10} = \frac{1+3}{10} = \frac{4}{10}$$

(f) Since the denominators are same

So, we add the numerators directly

$$\frac{2}{7} + \frac{3}{7} = \frac{2+3}{7} = \frac{5}{7}$$

2. (a) Since denominators are same

So, we subtract the numerators directly

$$\frac{4}{7} - \frac{2}{7} = \frac{4-2}{7} = \frac{2}{7}$$

(b) Since denominators are same

So, we subtract the numerators directly

$$\frac{5}{9}-\frac{2}{9}=\frac{5-2}{9}=\frac{3}{9}$$

(c) Since denominators are same

So, we subtract the numerators directly

$$\frac{7}{8}-\frac{5}{8}=\frac{7-5}{8}=\frac{2}{8}=\frac{1}{4}$$

(d) Since denominatore are same

So, we subtract the numerators directly

$$\frac{7}{10}-\frac{5}{10}=\frac{7-5}{10}=\frac{2}{10}=\frac{1}{5}$$

(e) Since denominators are same

So, we subtract the numerators directly

$$\frac{8}{10}-\frac{3}{6}=\frac{8-6}{10}=\frac{2}{6}=\frac{1}{3}$$

(f) Since denominators are same

So, we subtract the numerators directly

$$\frac{8}{10}-\frac{6}{10}=\frac{8-6}{10}=\frac{2}{10}=\frac{1}{5}$$

Exercise 10.7

1. The part of match was over $=\frac{3}{5}$

Total match = 1 (let)

The part of match was left $=1-\frac{3}{5}=\frac{5-3}{5}$

$=\frac{2}{5}$ or two-fifth match was left

2. School work done on Monday $=\frac{3}{7}$

School work done on Tuesday $=\frac{2}{7}$

Total school work done in two days $=\frac{3}{7}+\frac{2}{7}=\frac{3+2}{7}=\frac{5}{7}$

3. Marbles lost on Saturday = $\frac{1}{6}$

Marbles lost on Sunday = $\frac{2}{6}$

Total marbles lost in two days = $\frac{1}{6} + \frac{2}{6} = \frac{1+2}{6} = \frac{3}{6} = \frac{1}{2}$

4. Sammy read part in first day = $\frac{1}{8}$

Sammy read part in second day = $\frac{3}{8}$

Total part read in two days = $\frac{1}{8} + \frac{3}{8} = \frac{1+3}{8} = \frac{4}{8} = \frac{1}{2}$

5. Farmer reaped crop on first day = $\frac{3}{9}$

Farmer reaped crop on second day = $\frac{4}{9}$

Total part of crop reaped in two days = $\frac{3}{9} + \frac{4}{9} = \frac{3+4}{9} = \frac{7}{9}$

Check Yourself

1. (a) Numerator = 5

Denominator = 12

So, fraction = $\frac{\mathbf{5}}{\mathbf{12}}$

(b) Fraction = $\frac{3}{8}$

So, Numerator = **3**

Denominator = **8**

(c) Fraction = $\frac{9}{11}$

So, Numerator = 9

Denominator = **11**

(d) Fraction = $\frac{6}{11}$

So, Numerator = 6

Denominator = **11**

(e) Fraction = $\frac{1}{12}$

Denominator = 12

So, Numerator = **1**

2. (a) $\frac{1}{7}$ is less than $\frac{5}{7}$, so the statement is **false**.

(b) $\frac{1}{2}$ of 30 means $\frac{1}{2} \times 30 = 15$ so the statement is **true**.

(c) Two-ninths is $\frac{2}{9}$. So the statement is **false**.

(d) Like fractions have the same denominator. So the statement is **true**.

(e) $\frac{1}{5}$ of $15 = \frac{1}{5} \times 15 = 3$, so the statement is **false**.

3. (a) $\frac{1}{5}$ of $55 = \frac{1}{5} \times 55 = 11$

So, (iii)

(b) $\frac{1}{2}$ of $10 = \frac{1}{2} \times 10 = 5$

So, (iv)

(c) Four-seventh $= \frac{4}{7}$

So, (i)

(d) Nine-seventeenth $= \frac{9}{17}$

So, (ii)

4. (a) Total cans bought = 5

He drank cans = 2

So, the fraction of can she drank $= \frac{2}{5}$

So, (i) is the correct option.

(b) Ketan got mark = 8

Total marks of the test was = 10

So the fraction of marks scored by ketan $= \frac{8}{10}$

So, (iv) is the correct option.

(c) Total chocolates = 7

Amy ate of them = 5

So, the fraction of chocolates eaten by Amy $= \frac{5}{7}$

So, (ii) is the correct option.

11. Measurement

Exercise 11.1

1. Do yourself

Exercise 11.2

1. (a) $\because$ 1 m = 100 cm

$\therefore$ 6 m = 6×100 cm = **600** cm

(b) ∵ 1 m = 100 cm

∴ 14 m = 14 × 100 cm = **1400** cm

(c) ∵ 1 m = 100 cm

∴ 11 m = 11 × 100 cm = **1100** cm

(d) ∵ 1 m = 100 cm

∴ 15 m = 15 × 100 cm = **1500** cm

(e) ∵ 1 m = 100 cm

∴ 25 m = 25 × 100 cm = **2500** cm

(f) ∵ 1 m = 100 cm

∴ 16 m = 16 × 100 cm = **1600** cm

2. (a) ∵ 1 m = 100 cm

∴ 8 m = 8 × 100 cm = **800** cm

(b) ∵ 1 m = 100 cm

∴ 6 m 3 cm = 6 × 100 + 3 cm = **603** cm

(c) ∵ 1 m = 100 cm

∴ 12 m 50 cm = 12 × 100 + 50 cm = **1250** cm

(d) ∵ 1 m = 100 cm

∴ 7 m 15 cm = 7 × 100 + 15 cm = **715** cm

(e) ∵ 1 m = 100 cm

∴ 2 m 12 cm = 2 × 100 + 12 cm = **212** cm

(f) ∵ 1 m = 100 cm

∴ 8 m 15 cm = 8 × 100 + 15 cm = **815** cm

Exercise 11.3

1. (a) ∵ 1 m = 10 dm

∴ 4 m = 4 × 10 dm

= 40 dm

(b) ∵ 1 m = 10 dm

∴ 6 m = 6 × 10 dm

= 60 dm

(c) ∵ 1 m = 10 dm

∴ 3 m 2 dm = 3 × 10 + 2 dm

= 32 dm

(d) ∵ 1 m = 10 dm

∴ 9 m 7 dm = 9 × 10 + 7 dm

= 97 dm

(e) ∵ 1 m = 10 dm

∴ 8 m = 8 × 10 dm

= 80 dm

(f) ∵ 1 m = 10 dm

∴ 4 m 3 dm = 4 × 10 + 3 dm

= 43 dm

(g) $\because$ 1 m = 10 dm

$\therefore$ 7 m 5 dm = $7 \times 10 + 5$ dm

= 75 dm

(h) $\because$ 1 m = 10 dm

$\therefore$ 3 m 2 dm = $3 \times 10 + 2$ dm

= 32 dm

2. (a) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 27 dm = $\frac{27}{10}$ m = 2.7 m = 2 m 7 dm

(b) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 39 dm = $\frac{39}{10}$ m = 3.9 m = 3 m 9 dm

(c) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 31 dm = $\frac{31}{10}$ m = 3.1 m = 3 m 1 dm

(d) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 54 dm = $\frac{54}{10}$ m = 5.4 m = 5 m 4 dm

(e) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 20 dm = $\frac{20}{10}$ m = 2 m

(f) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 86 dm = $\frac{86}{10}$ m = 8.6 m = 8 m 6 dm

(g) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 42 dm = $\frac{42}{10}$ m = 4.2 m = 4 m 2 dm

(h) $\because$ 1 dm = $\frac{1}{10}$ m

$\therefore$ 91 dm = $\frac{91}{10}$ m = 9.1 m = 9 m 1 dm

Exercise 11.4

1. (a) $\because$ $1\text{ cm} = \frac{1}{10}\text{ dm}$

$\therefore$ $40\text{ cm} = \frac{40}{10}\text{ dm} = 4\text{ m}$

(b) $\because$ $1\text{ cm} = 10\text{ dm}$

$\therefore$ $6\text{ cm} = 6 \times 10 = 60\text{ dm}$

(c) $\because$ $1\text{ cm} = \frac{1}{10}\text{ dm}$

$\therefore$ $70\text{ cm} = \frac{70}{10} = 7\text{ dm}$

(d) $\because$ $1\text{ cm} = 10\text{ dm}$

$\therefore$ $20\text{ m} = 28 \times 10 = 280\text{ dm}$

2. (a) $\because$ $1\text{ dm} = 10\text{ dm}$

$\therefore$ $2\text{ dm } 6\text{ cm} = 2 \times 10 + 6\text{ cm} = 26\text{ cm}$

(b) $\because$ $1\text{ dm} = 10\text{ dm}$

$\therefore$ $8\text{ dm } 4\text{ cm} = 8 \times 10 + 4\text{ cm} = 84\text{ cm}$

(c) $\because$ $1\text{ dm} = 10\text{ dm}$

$\therefore$ $5\text{ dm } 7\text{ cm} = 5 \times 10 + 7\text{ cm} = 57\text{ cm}$

(d) $\because$ $1\text{ dm} = 10\text{ cm}$

$\therefore$ $10\text{ dm } 14\text{ cm} = 10 \times 10 + 14 = 114\text{ cm}$

3. (a) $\because$ $1\text{ m} = 10\text{ dm}$

$\therefore$ $2\text{ m } 4\text{ dm} = 2 \times 10 + 4\text{ dm} = 24\text{ dm}$

(b) $\because$ $1\text{ m} = 10\text{ dm}$

$\therefore$ $8\text{ m } 4\text{ dm} = 8 \times 10 + 4 = 84\text{ dm}$

(c) $\because$ $1\text{ m} = 10\text{ dm}$

$\therefore$ $9\text{ m } 5\text{ dm} = 9 \times 10 + 5 = 95\text{ dm}$

(d) $\because$ $1\text{ m} = 10\text{ dm}$

$\therefore$ $15\text{ dm } 9\text{ dm} = 15 \times 10 + 9 = 59\text{ dm}$

Exercise 11.5

1. (a)

	m
	①①
	1 0 2
	2 9 3
+	4 1 8
	8 1 3

(b)

	km
	②②
	1 6 7
	3 4 9
+	8 7
	6 0 3

(c)

	km	m
	②①①	②①
	3 6 1	8 7 6
	2 8 7	1 8 5
+	5 3	2 9 0
	7 0 2	3 5 1

2. (a)

m	cm
⑦⑭	③⑱
~~8~~ ~~4~~	~~4~~ ~~8~~
− 1 8	1 9
6 6	2 9

(b)

km	m
	③⑰⑮
9 7	~~4~~ ~~8~~ ~~5~~
− 2 6	1 9 7
7 1	2 8 8

(c)

km	m
	⑦⑨⑩
7 2 3	~~8~~ 0 0
+ 1 1	4 9 9
7 1 2	3 0 1

3. (a)

km
⑤④
165
× 8
1320

(b)

m	cm
①②	③
42	46
	× 5
212	30

(c)

km	m
①②	③
92	415
	× 6
554	490

4. (a)

m	
9	819 (91
	−81↓
	9
	−9
	×
	= 9 1 m

(b)

km	
6	366 (61
	−36↓
	6
	−6
	×
	= 61km

(c)

m	cm	
4	168	80 (42 20
	−16↓	
	8	
	−8	
	8	
	8	
	0	
	0	
	×	
	= 42 m 20 cm	

Exercise 11.6

1. Distance covered by foot = 1 km 375 m

By bus = 52 km 425 m

By taxi = 2 km 150 m

Total distance covered

So, Sahil covers 8 km 950 m in total.

km	m
	①①
1	375
5	425
+ 2	150
8	950

2. Boat has to sail = 54 km

It sail on first day = 8 km 248 m

So, distance further to sail.

km	m
⑨⑬	⑨⑨⑩
~~5~~ ~~4~~	0 0 ~~0~~
+ 8	2 4 8
4 5	7 5 2

3. Total length of the rope = 159 m 37 cm

Length of the red rope = 65 m 22 cm

Length of black rope = 37 m 25 cm

Length of yellow rope = 159 m 37 cm – (65 m 22 cm + 37 m 25 cm)

m	cm
①	
65	22
+ 37	25
102	47

m	cm
⑧	⑬
159	~~3~~7
– 102	47
56	90

So, the length of yellow rope is 56 m 90 cm.

4. Boat sails in a day = 6 km 120 m

It will sail in three days = 6 km 120 m × 3

So, the boat will sail 18 km 360 m in 3 days.

km	m
6	120
	× 3
18	360

5. Cloth use for one shirt = 1 m 40 cm

Cloth needed for two shirts = 1 m 40 cm × 2

So, 2 m 80 cm cloth would be required for two shirts.

m	cm
1	40
	× 2
2	80

Exercise 11.7

1. (a) ∵ 1 kg = 1000 gm

∴ 6 kg = 6 × 1000 gm = 6000 gm

(b) ∵ 1 kg = 1000 gm

∴ 2 kg 780 g = 2 × 1000 + 780 = 2780 gm

(c) ∵ 1 kg = 1000 gm

∴ 3 kg 435 gm = 3 × 1000 + 435 gm = 3435 gm

(d) ∵ 1 kg = 1000 gm

∴ 4 kg 678 gm = 4 × 1000 + 678 gm = 4678 gm

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

∴ $5000\text{ g} = \frac{5000}{1000}\text{ kg} = 5\text{ kg}$

(b) ∵ $1\text{ g} = \frac{1}{1000}\text{ kg}$

∴ $1008\text{ g} = \frac{1008}{1000}\text{ kg} = 1.008\text{ kg} = 1\text{ kg } 8\text{ g}$

(c) $\because$ $1\text{ g} = \frac{1}{1000}\text{ kg}$

$\therefore$ $7870\text{ g} = \frac{7870}{1000}\text{ kg} = 7.870\text{ kg} = 7\text{ kg }870\text{ g}$

(d) $\because$ $1\text{ g} = \frac{1}{1000}\text{ kg}$

$\therefore$ $5645\text{ g} = \frac{5645}{1000}\text{ kg} = 5.645\text{ kg} = 5\text{ kg }645\text{ g}$

3. (a) $\because$ $1\text{ g} = \frac{1}{1000}\text{ kg}$

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

(b) $\because$ $1\text{ g} = \frac{1}{1000}\text{ kg}$

$\therefore$ $2000\text{ g} = \frac{2000}{1000}\text{ kg} = 2\text{ kg}$

(c) $\because$ $1\text{ g} = \frac{1}{1000}\text{ kg}$

$\therefore$ $32000\text{ g} = \frac{32000}{1000}\text{ kg} = 32\text{ kg}$

(d) $\because$ $1\text{ g} = \frac{1}{1000}\text{ kg}$

$\therefore$ $7000\text{ g} = \frac{7000}{1000}\text{ kg} = 7\text{ kg}$

4. (a) $\because$ $1\text{ kg} = 1000\text{ g}$

$\therefore$ $3\text{ kg } 3 \times 1000\text{ kg} = 3000\text{ kg}$

(b) $\because$ $1\text{ kg} = 1000\text{ g}$

$\therefore$ $8\text{ kg} = 8 \times 1000\text{ g} = 8000\text{ g}$

(c) $\because$ $1\text{ kg} = 1000\text{ g}$

$\therefore$ $37\text{ kg} = 37 \times 1000\text{ g} = 37000\text{ g}$

(d) $\because$ $1\text{ kg} = 1000\text{ g}$

$\therefore$ $93\text{ kg} = 93 \times 1000\text{ g} = 93000\text{ g}$

5. (a) We know that 1000 gram make 1 kg.

So, 1000 – 400 g = 600 g

So, 600 g more required to make 1 kg

(b) We know that 1000 gram make 1 kg

So, 1000 – 640 g = 360 g

So, 360 g more required to make 1 kg

(c) We know that 1000 gram make 1 kg

So, 1000 – 700 g = 300 g

So, 300 g more required to make 1 kg

(d) We know that 100 gram make 1 kg

So, 1000 – 60 g = 940 g

So, 940 g more required to make 1 kg

Exercise 11.8

1. (a)

	kg
	①①②
	2 2 4 7
	1 6
+	9 8 9
	3 2 5 2

(b)

	kg	g
	①	①②
	7	6 4 9
	1 2	1 2 6
+	1 3 2	9 6
	1 5 1	8 7 1

(c)

	kg	g
	①②①	①②
	1 4 8 7	6 4 5
	4 3 2	3 4 5
	2 8	2 7
+	6	1 9
	1 9 5 4	0 3 6

2. (a)

	g
	⑧⑬⑬
	9 4 3
–	7 7 7
	1 6 6

(b)

	kg	g
	①	⑦
	7 5	4 8 5
–	3 6	2 7 9
	3 9	2 0 6

(c)

	kg	g
	⑧⑩	⑤⑰⑰
	9 0	6 8 7
–	7 1	2 9 8
	1 9	3 8 9

3. (a)

	kg
	⑥⑦
	9 7 9
×	8
	7 8 3 2

(b)

	kg
	①②②
	1 2 3 4
×	6
	7 4 0 4

(c)

		g
	①	①②
	5 4	1 2 7
×		4
	2 1 6	5 0 8

Exercise 11.9

1. Weight of white paint = 3 kg 500 g

Weight of red paint = 15 kg 200 g

Combined weight

So, the combined weight of paint is 18 kg 700 g.

	kg	g
	3	500
+	15	200
	18	700

2. Rohan's weight = 22 kg 300 g

Shalini's weight is 2 kg 100 g more than Rohan.

So, Shalini's weight = 24 kg

	kg	g
	22	300
+	2	100
	24	400

3. Van carries soap = 66 kg

It delivers soap = 4 kg 500 g

So, the soap left in the van

	kg	g
	⑤	⑩
	6 ~~6~~	~~0~~ 0 0
−	4	5 0 0
	6 1	5 0 0

4. Merchant bought number of bags of cotton = 9

Each bag weight = 35 kg 200 g

So, the total weight of the bags = 316 kg 800 g.

	kg	g
	④①	
	3 5	2 0 0
×		9
	3 1 6	8 0 0

5. Weight of a chocolate bar = 75 grams

Weight of a gift pack of 3 chocolate bars = 75 gram × 3

So, the weight of a gift pack of 3 chocolate bars = 225 g.

	g
	①
	7 5
×	3
	2 2 5

6. Wheat is distribute among = 5 persons

Total weight of wheat to be distributed = 25 kg 330 g

$$5\overline{)\,25330\,(5066}$$

-25

33

-30

30

-30

$\times$

So, each person will get 5 kg 66 g wheat.

Exercise 11.10

1. (a) $\because$ 1 l = 1000 ml

$\therefore$ 2 l 5 ml = 2 × 1000 + 5 ml = 2005 ml

Which is not equal to 205 ml

So, ☒

(b) $\because$ $1 \text{ ml} = \frac{1}{1000} \text{ ml}$

$\therefore$ $1009 \text{ ml} = \frac{1009}{1000} \text{ ml} = 1.009 \text{ ml} = 1\ l\ 9 \text{ ml}$

So, ☑

(c) $\because$ $1\ l = 1000$ ml

$\therefore$ $2\ l\ 05 = 2 \times 1000 + 5$ ml $= 2005$ ml $= 20\ l\ 5$ ml

Which is not equal to $21\ l\ 5$ ml

So, ☒

(d) $\because$ 1 ml $= \frac{1}{1000}\ l$

$\therefore$ 7075 ml $= \frac{7075}{1000}\ l = 7.075\ l = 7\ l\ 75$ ml

Which is not equal to $70\ l\ 25$ ml

So, ☒

(e) $\because$ 1 ml $= \frac{1}{1000}\ l$

$\therefore$ 6052 ml $= \frac{6052}{1000}\ l = 6.052\ l = 6\ l\ 52$ ml

So, ☑

(f) $\because$ $1\ l = 1000$ ml

$\therefore$ $3\ l\ 60$ ml $= 3 \times 1000 + 60$ ml $= 3060$ ml

So, ☒

2. (a) $\because$ $1\ l = 1000$ ml

$\therefore$ $2\ l\ 750$ ml $= 2 \times 1000 + 750$ ml $= 2750$ ml

(b) $\because$ $1\ l = 1000$ ml

$\therefore$ $1\ l\ 110$ ml $= 1 \times 1000 + 110$ ml $= 1110$ ml

(c) $\because$ $1\ l = 1000$ ml

$\therefore$ $4\ l\ 320$ ml $= 4 \times 1000 + 320$ ml $= 4320$ ml

(d) $\because$ $1\ l = 1000$ ml

$\therefore$ $5\ l = 5 \times 1000 + 350$ ml $= 5350$ ml

3. (a) $\because$ 1 ml $= \frac{1}{1000}\ l$

$\therefore$ 7392 ml $= \frac{7392}{1000l} = 7.392\ l = 7\ l\ 392$ ml

(b) $\because$ 1 ml $= \frac{1}{1000}\ l$

$\therefore$ 9999 ml $= \frac{9999}{1000}\ l = 9.999\ l = 9\ l\ 999$ ml

(c) $\because$ $1 \text{ ml} = \frac{1}{1000}\, l$

$\therefore$ $8830 \text{ ml} = \frac{8830}{1000}\, l = 8.830\, l = 8\, l\ 830 \text{ ml}$

(d) $\because$ $1 \text{ ml} = \frac{1}{1000}\, l$

$\therefore$ $9007 \text{ ml} = \frac{9007}{1000}\, l = 9.007\, l = 9\, l\ 7 \text{ ml}$

4. (a) $\because$ $1\, l = 1000 \text{ ml}$

$\therefore$ $1\, l\ 2 \text{ ml} = 1 \times 1000 + 2 \text{ ml} = 1002 \text{ ml}$

(b) $\because$ $1\, l = 1000 \text{ ml}$

$\therefore$ $2\, l\ 140 \text{ ml} = 2 \times 1000 + 140 \text{ ml} = 2140 \text{ ml}$

(c) $\because$ $1\, l = 1000 \text{ ml}$

$\therefore$ $5\, l\ 40 \text{ ml} = 5 \times 1000 + 40 \text{ ml} = 5040 \text{ ml}$

(d) $\because$ $1\, l = 1000 \text{ ml}$

$\therefore$ $7\, l\ 356 \text{ ml} = 7 \times 1000 + 356 \text{ ml} = 7356 \text{ ml}$

Exercise 11.11

1. (a)

l	ml
① ①	① ①
8 7	8 7 3
+ 4	7 8
9 2	9 5 1

(b)

l	ml
① ① ①	① ①
1 2 3	4 5 6
+ 7 8 9	6 5 4
9 1 3	1 1 0

(c)

l	ml
① ①	② ①
2 3	3 8 1
1 4	2 2 7
+ 3 6	4 9 8
7 4	1 0 6

2. (a)

l	ml
⑧ ⑮	⑬ ⑭ ⑯
~~9~~ ~~6~~	~~4~~ ~~5~~ ~~6~~
− 1 8	7 6 9
7 7	6 8 7

(b)

l	ml
⑤	⑱
4 5 ~~6~~	~~8~~ 9 0
− 1 2 3	9 7 0
3 3 2	9 2 0

(c)

l	ml
②	⑨ ⑨ ⑩
~~3~~	~~0~~ ~~0~~ ~~0~~
−	9 8 7
2	0 1 3

3. (a)

l
4321
× 2
8642

(b)

l	ml
	①
7 2	1 2 3
×	4
2 8 8	4 9 2

(c)

l	ml
	①
2	2 4 2
×	3
6	7 2 6

Exercise 11.12

1. Capacity of bucket = 9 *l*

Water in the bucket = 4 *l* 300 ml

So, water can be poured.

Thus 4 *l* 700 ml more water can be poured into the bucket

	l	ml
	⑧	⑩
	~~9~~	~~0~~00
−	4	300
	4	700

2. Yellow paint = 1 *l* 500 ml

Brown paint = 500 ml

So the paint was required to paint the room.

Thus 2 *l* paint was required to paint the room.

	l	ml
	①	
	~~1~~	~~5~~00
−		500
	2	000

3. Mrs Patil made juice = 2 *l* 100 ml

Her children drank = 600 ml

So, the juice left

Thus 1 *l* 500 ml Juice was left.

	l	ml
	⑧	⑩
	~~2~~	~~1~~00
−		600
	1	500

4. Cow gives milk at a time = 20 *l* 500 ml

The calf drinks = 1 *l* 300 ml

Milk wasted by milk man = 900 ml

So, the milk left with the milkman

= 20 *l* 500 ml (1 *l* 300 ml + 900 ml)

	l	ml
	①	
	1	300
+		900
	2	200

	l	ml
	①⑩	
	~~2~~~~0~~	500
−	2	200
	18	300

So, 18 *l* 300 ml milk is left with the milkman.

Check Yourself

1. (a) The basic units of length are metre and centimetre.

So, Length is measured in **metre** and **centimetre**.

(b) The basic unit of measuring weight is kilogram.

So, A bag of wheat is measured in **kilogram**.

(c) The basic units of weight are gram and kilogram.

So, we measure weight in **kilogram** and **gram**.

(d) $\because \quad 1 \text{ cm} = \frac{1}{100} \text{ m}$

$\therefore \quad 500 \text{ cm} = \frac{500}{100} \text{ m} = 5 \text{ m}$

2. (a) We know that 1 metre = 100 centimetre

So, the statement is **False**.

(b) $\because \quad 1\ l = 1000 \text{ ml}$

$\therefore \quad 2\ l\ 750 \text{ ml} = 2 \times 1000 + 750 \text{ ml}$

$= 2750 \text{ ml}$

So, the statement is **False**.

(c) $\because \quad 1 \text{ kg} = 1000 \text{ g}$

$\therefore \quad 6 \text{ kg } 775 \text{ g} = 6 \times 1000 + 775 \text{ g}$

$= 6775 \text{ g}$

So,
$$\begin{array}{r} 8775 \\ -\ 6775 \\ \hline 2000 \end{array}$$

So, the statement is **True**.

(d) 400 g + 600 g = 1000 g

We know that 1000 g = 1 kg

So, the statement is **True**.

3. (a) The capacities of water bottles are generally of *l*.

So, **(ii)** is the correct option.

(b) The capacities of bottles of nail polish are generally of 15 ml.

So, **(i)** is the correct option.

(c) The cap of bottle of the syrup is labelled in *ml*.

So, **(i)** is the correct option.

(d) The milk in a cup can be measured in *ml* only.

So, **(ii)** is the correct option.

12. Geometry

Exercise 12.1

1. (a) The cone has two surfaces, one edge and one vertex.

So, Cone

(b) The cube has six faces, all of equal size and it has 12 edges and 8 vertices.

So, Cone, 12

(c) The cylinder have no vertices but 2 edges and enlongated shape with three faces.

So, Cylinder

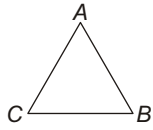
(d) The cuboid have six faces but not of equal size and it has 8 vertices.

So, Cuboid, 8

(e) Our Earth looks like a sphere.

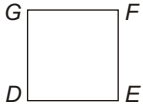
So, Sphere

2. Do yourself

3. (a) 

There are three line segments in the given figure.

AB, BC, CA

(b) 

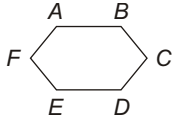
There are four line segments in the given figure.

GF, FE, ED, DG

(c) 

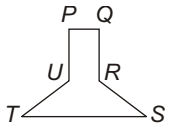
There are four line segments in the given figure.

DC, CD, BA, AD

(d) 

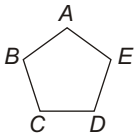
There are six line segments in the given figure.

AB, BC, CD, DE, EF, FA

(e) 

There are six line segments in the given figure.

PQ, QR, RS, ST, TU, UP

(f) 

There are five line segments in the given figure.

AB, BC, CD, DE, EA.

4. (a) Horizontal line is one which runs left to right.

So, the line is horizontal line.

(b) A slant line is one which is straight but lean slant towards another direction.

So, the line is slant line.

(c) A curved line is one which is not straight, vertical and slant line.

So, the line is curved line.

5. and **6.** Do yourself

7. (a) DC and AB are horizontal lines in the given figure.

(b) AD and BC are the vertical lines in the given figure.

(c) BD and AC are the oblique lines in the given figure.

(d) AC intersect BD on O, so O is the point of intersection of lines AC and BD.

(e) AB intersect BC on B, so B is the point of intesection of lines AB and BC.

8. and **9.** Do yourself

10. Only (a) and (c) because only these have the equidistant lines from each other at every point lie on them.

11. (a) DC and AB are parallel lines in the given figure.

(b) PQ, SR and TU are parallel lines in the given figure.

(c) DE, BC and FG are parallel lines in the given figure.

Exercise 12.2

1. (a) The shape of stamp is similar to **square**.

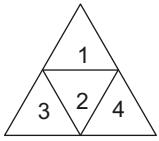
(b) The shape of a ₹ 10 is similar to **circle**.

(c) The shape of a page in our book is similar to **rectangle**.

(d) The shape of the face of a full moon is similar to **circle**.

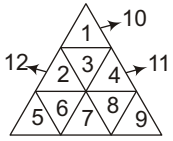
(e) The shape of the set square in a geometry box is similar to **triangle**.

2. (a)



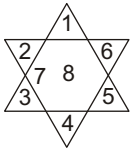
So, there are **5** triangles in the given figure.

(b)



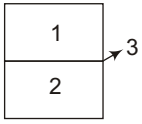
So, there are **13** triangles in the given figure.

(b)



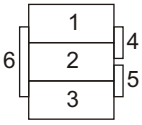
So, there are **8** triangles in the given figure.

3. (a)



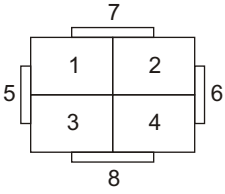
So, there are **3** rectangles in the given figure.

(b)



So, there are **6** rectangles in the given figure.

(c)



So, there are **9** rectangles in the given figure.

4. and **5.** Do yourself

Exercise 12.3

1. (a) The dotted line does not divide the given figure into two hales.
So, the dotted line is not the line of symmetry.
So, N

(b) The dotted line divides the given figure into two halves.
So, the dotted line is the line of symmetry.
So, Y

(c) The dotted line the given figure into two halves.
So, the dotted line is the line of symmetry.
So, Y

(d) The dotted line does not divide the given figure into two halves.
So, the dotted line is not the line of symmetry.
So, N

(e) The dotted line divides the given figure into two halves.
So, the dotted line is the line of symmetry.
So, Y

(f) The dotted line divides the given figure into two halves.
So, the dotted line is the line of symmetry.
So, Y

2. and **3.** Do yourself

Check Yourself

1. (a) Each face of a cube is a **square**.

(b) A **sphere** has only one curved face with no vertex and no edge.

(c) **Opposite** faces of a cuboid are equal in size and shape.

(d) Match box is an example of a **cuboid** shape.

2. (a) The surface of a ball is a curved surface.
So, the statement is **False**.

(b) The surface of a blackboard is a flat surface.
So, the statement is **False**.

(c) A cuboid has 8 vertices.
So, the statement is **False**.

(d) A cube has 6 faces.

So, the statement is **True**.

3. (a) Match box is similar to cuboid.

So, (a) → **(ii)**

(b) Dice is similar to cube.

So, (b) → **(iv)**

(c) Cone has only one vertex

So, (c) → **(i)**

(d) Cylinder has 2 circular edges.

So, (d) → **(v)**

(e) Sphere has only one face.

So, (e) → **(iii)**

4. (a) A cylinder have 2 edges.

So, (iv) is the correct option.

(b) All are 3 dimensional figure except circle.

So, (i) is the correct option.

(c) A cylinder has 2 circular and 1 curved surface.

So, (i) is the correct option.

(d) A triangle has 3 line segments.

So, (iii) is the correct option.

(e) There are 12 vertices in the given figure.

So, (iii) is the correct option.