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GENERAL
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MATHEMATICS

4

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MATHEMATICS 4

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(WHOLE NUMBERS)

Exercise No 1 (TB PG 05)

Q1. Write the following numbers in expanded form

(a) 675432

Sol: $675432 = 600000 + 70000 + 5000 + 400 + 30 + 2$ Ans

(b) 437911

Sol: $437911 = 400000 + 30000 + 7000 + 900 + 10 + 1$ Ans

(c) 210956

Sol: $210956 = 200000 + 10000 + 0000 + 900 + 50 + 6$ Ans

(d) 546743

Sol: $546743 = 500000 + 40000 + 6000 + 700 + 40 + 3$ Ans

(e) 786594

Sol: $786594 = 700000 + 80000 + 6000 + 500 + 90 + 4$ Ans

(f) 509223

Sol: $509223 = 500000 + 00000 + 9000 + 200 + 20 + 3$ Ans

(g) 322167

Sol: $322167 = 300000 + 20000 + 2000 + 100 + 60 + 7$ Ans

(h) 657890

Sol: $657890 = 600000 + 50000 + 7000 + 800 + 90 + 0$ Ans

(i) 236789

Sol: $236789 = 200000 + 30000 + 6000 + 700 + 80 + 9$ Ans

(j) 678324

Sol: $678324 = 600000 + 70000 + 8000 + 300 + 20 + 4$ Ans

(k) 901452

Sol: $901452 = 900000 + 00000 + 1000 + 400 + 50 + 2$ Ans

(l) 756432

Sol: $756432 = 700000 + 50000 + 6000 + 400 + 30 + 2$ Ans

Q2. Write the following numbers in standard form.

(a) $600000 + 20000 + 1000 + 100 + 70 + 1$
= 621171

(b) $200000 + 30000 + 9000 + 200 + 30 + 5$
= 239235

(c) $500000 + 60000 + 5000 + 300 + 40 + 3$ = 565343

(d) $700000 + 50000 + 6000 + 700 + 90 + 0$
= 756790

Q3. Write the place and place value of the colored digit.

(a) 576102

Sol: Place = tens
Place value = 00

(b) 824360

Sol: Place = ten thousand
Place value = 20000

(c) 794615

Sol: Place = hundred thousand
Place value = 700000

(d) 700496

Sol: place = ones
Place value = 6

(e) 573456

Sol: Place = Ten thousand
Place value = 70000

(f) 218654

Sol: Place = thousand
Place value = 8000

(g) 234566

Sol: Place = hundreds
Place value = 500

(h) 200042

Sol: Place = thousand
Place value = 0000

(i) 956324

Sol: Place = ones
Place value = 4

Q4. Write the following numbers in words.

(a) 674325

Sol: Six hundred and seventy four thousand, three hundred and twenty five. Ans

(b) 943711

Sol: Nine hundred and forty three thousand, seven hundred and eleven. Ans

(c) 219560

Sol: Two hundred and nineteen thousand, five hundred and sixty. Ans

(d) 675434

Sol: six hundred and seventy five thousand, four hundred and thirty four. Ans

(e) 867459

Sol: Eight hundred and sixty seven thousand, four hundred and fifty nine. Ans

(f) 925302

Sol: Nine hundred and twenty five thousand, three hundred and two. Ans

(g) 236721

Sol: Two hundred and thirty six thousand, seven hundred and twenty one. Ans

(h) 978065

Sol: Nine hundred and seventy eight thousand, and sixty five. Ans

(i) 362897

Sol: Three hundred and sixty two thousand, eight hundred and ninety seven. Ans

(j) 837264

Sol: Eight hundred and thirty seven thousand, two hundred and sixty four. Ans

(k) 405129

Sol: Four hundred and five thousand, one hundred and twenty nine. Ans

(l) 643275

Sol: Six hundred and forty three thousand, two hundred and seventy five. Ans

Q5. Write the following in numerals.

(a) Nine hundred and eighty one thousand, six hundred

Sol: Ans

(b) Seven hundred thousand, four hundred and two

Sol: 700402 Ans

(c) Four hundred thousand, sixty-one

Sol: 400061 Ans

(d) One hundred and twelve thousand, three hundred and one.

Sol: 112301 Ans

(e) Eight hundred and one thousand, five hundred and forty-six.

Sol: 801546 Ans

(f) Two hundred seventy two thousand, five hundred and fifty five.

Sol: 272555 Ans

(g) Seven hundred and ninety six thousand, five.

Sol: 796005 Ans.

(h) Four hundred and forty-four thousand, four hundred and forty four.

Sol: 444444

(i) One hundred and one thousand, three hundred and twenty.

Sol: 101320 Ans

Exercise 2 (TB Pg 8 – 9)

Q1. Compare the following numbers by using symbols, ($<$, $>$, $=$).

(a)	$84,325 < 93,417$	(b)	$4,853 < 19,314$
(c)	$56,708 > 32,156$	(d)	$23,612 = 23,612$
(e)	$65,356 < 65,358$	(f)	$74,932 > 74,542$
(g)	$68,709 > 43,216$	(h)	$32,567 > 23,578$

Q2. Write the following numbers in descending order.

(a) 83,401; 97,035; 12,337

Sol: 97,035 ; 83,401; 12,337 Ans

(b) 18,017; 18,221; 13,411

Sol: 18,221; 18,017; 13,411 Ans

(c) 42,734; 53,358; 48,176

Sol: 53,358; 48,176; 42,734 Ans

(d) 36,121; 34,222; 37,923

Sol: 37,923; 36,121; 34,222 Ans

(e) 16,483; 23,601; 36,243

Sol: 36,243; 23,601; 16,483 Ans

(f) 12,683; 24,313; 24,391

Sol: 24,391; 24,313 ; 12,683 Ans

(g) 32,531; 36,537; 28,540

Sol: 36,537; 32,531 ; 28,540 Ans

(h) 98,754; 78,543; 89,654

Sol: 98,754; 89,654; 78,543

Q3. Write the following numbers in ascending order.

(a) 40,131; 40,735; 31,273

Sol: 31,273, 40,131; 40,735 Ans

(b) 30,817; 28,211 ; 43,181

Sol: 28,211; 30, 817; 43,181 Ans

(c) 70,442; 58,375 ; 84,176

Sol: 58,375; 70,442; 84,176 Ans

- (d) 67,319; 22,342 ; 97,323
Sol: 22,342; 67, 319; 97,323 Ans
- (e) 83,624; 36,241; 63,283
Sol: 36,241; 63,283 ; 83,624 Ans
- (f) 48,326; 23,634; 43,124
Sol: 23,634; 43,124; 48,326 Ans
- (g) 59,312; 60,337; 24,085
Sol: 24,085 ; 59,312 ; 60,337 Ans
- (h) 89,675 ; 84,675 ; 89,546
Sol: 84,675; 89,546 ; 89,675 Ans

Review Exercise (TB Pg 10)

Q1. Choose the correct answer.

(a)	The smallest 6 digit number is _____.		
(i)	111111	(ii)	100000 ✓
(iii)	101010	(iv)	111000
(b)	Comparison of numbers always starts from the _____.		
(i)	Right	(ii)	Left ✓
(iii)	Last	(iv)	Above
(c)	In number 738,101; the place value of digit 8 is _____.		
(i)	800	(ii)	8
(iii)	80	(iv)	8000 ✓
(d)	The greatest 6 digit number is _____.		
(i)	910100	(ii)	901101
(iii)	999999 ✓	(iv)	900000
(e)	348,011 is greater than _____.		
(i)	348010 ✓	(ii)	348111
(iii)	348210	(iv)	348212
(f)	431,108 is smaller than _____.		
(i)	431106	(ii)	431107
(iii)	430100	(iv)	431109 ✓

Q2. Write the following numbers in words.

- (a) 43,567
Sol: Forty three thousand, five hundred and sixty seven. Ans
- (b) 397,741
Sol: Three hundred and ninety seven thousand, seven hundred and forty one. Ans
- (c) 952,016

Sol: Nine hundred and fifty two thousand and sixteen. Ans

(d) 546, 743

Sol: Five hundred and forty six thousand, seven hundred and forty three. Ans

(e) 758,649

Sol: Seven hundred and fifty eight thousand, six hundred and forty nine. Ans

(f) 395,202

Sol: Three hundred and ninety five thousand, two hundred and two. Ans

(g) 210,007

Sol: Two hundred and ten thousand, and seven. Ans

(h) 986,950

Sol: Nine hundred and eighty-six thousand, nine hundred and fifty. Ans

(i) 600, 000

Sol: Six hundred thousand.

(j) 600,032

Sol: Six hundred thousand and thirty two

(k) 452,901

Sol: Four hundred and fifty two thousand, nine hundred and one. Ans

(l) 536,427

Sol: Five hundred and thirty six thousand, four hundred and twenty seven. Ans

Q3. Write the following numbers in expanded form.

(a) 453672

Sol: $453672 = 400000 + 50000 + 3000 + 600 + 70 + 2$ Ans

(b) 974311

Sol: $974311 = 900000 + 70000 + 4000 + 300 + 10 + 1$ Ans

(c) 125609

Sol: $125609 = 100000 + 20000 + 5000 + 600 + 00 + 9$ Ans

(d) 465743

Sol: $465743 = 400000 + 60000 + 5000 + 700 + 40 + 3$ Ans

(e) 678945

Sol: $678945 = 600000 + 70000 + 8000 + 900 + 40 + 5$ Ans

(f) 392502

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Sol: $392502 = 300000 + 90000 + 2000 + 500 + 00 + 2$ Ans

(g) 316272
Sol: $316272 = 300000 + 10000 + 6000 + 200 + 70 + 2$ Ans

(h) 569078
Sol: $569078 = 500000 + 60000 + 9000 + 000 + 70 + 8$ Ans

(i) 327869
Sol: $327869 = 300000 + 20000 + 7000 + 800 + 60 + 9$ Ans

(j) 432786
Sol: $432786 = 400000 + 30000 + 2000 + 700 + 80 + 6$ Ans

(k) 541902
Sol: $541902 = 500000 + 40000 + 1000 + 900 + 00 + 2$ Ans

(l) 364753
Sol: $364753 = 300000 + 60000 + 4000 + 700 + 50 + 3$ Ans

Q4. Write the following in numerals.

(a) Four hundred and fifty-one thousand and one.

Sol: $451,001$ Ans

(b) Three hundred and eight thousand, four hundred and four.

Sol: $308,404$ Ans

(c) Five hundred and fifteen thousand

Sol: $515,000$ Ans

(d) Six hundred and twenty one thousand, one hundred and five.

Sol: $621,105$ Ans

(e) One hundred and five thousand five hundred.

Sol: $105,500$ Ans

(f) Two hundred and ninety-six thousand, one hundred and twenty five.

Sol: $296,125$ Ans

(g) Nine hundred and sixty seven thousand three.

Sol: $967,003$ Ans

Q5. Write the place and place value of the coloured digits.

(a) $7\text{6}\underline{5},021$

Sol: Place = thousand,

place value = 5000 Ans

(b) $8\text{24},360$

Sol: place = hundred Thousand

Place value = 20,000

(c) $9\text{46},715$

Sol: Place = hundred thousand

Place value = 900,000 Ans

(d) $960,700$

Sol: place = ones

Place value = 0 Ans

(e) $357,564$

Sol: Place = Ones

Place value = 4 Ans

(f) $826,514$

Sol: Place = Thousand

place value = 6000 Ans

(g) $452,663$

Sol: Place = Ten thousand

Place value = 50,000 Ans

(h) $234,540$

Sol: Place = Hundred thousand

Place = 200,000 Ans

Q6. Write the following in standard form.

(a) $300000 + 40000 + 4000 + 600 + 80 + 3 = 344683$ Ans

(b) $600000 + 90000 + 0000 + 000 + 50 + 4 = 690054$ Ans

(c) $400000 + 20000 + 9000 + 100 + 00 + 4 = 429104$ Ans

(d) $700000 + 10000 + 6000 + 700 + 80 + 5 = 716785$ Ans

Q7. Compare the following numbers by using symbols ($<$, $>$, $=$)

(a) $5847 < 31,341$

(b) $34,875 < 98,317$

(c) $50,678 > 45,321$

(d) $75,326 > 21,635$

(e) $76,643 = 76,643$

(f) $37,256 < 54,490$

(g) $66,809 > 24,351$

(h) $32,674 > 26,228$

Q8. Write the following in descending order.

(a) $12,683 ; 14,601 ; 18,624$

Sol: 18,624 ; 14,601; 12,683 Ans

(b) 16,283 ; 26,133; 14,394

Sol: 26,133 ; 16,283; 14,394 Ans

(c) 23,913 ; 30,536; 22,480

Sol: 30,536 ; 23,913; 22,480 Ans

(d) 54,788 ; 54,786 ; 54,790

Sol: 54,790; 54,788; 54,786 Ans

Q9. Write the following numbers in ascending order.

(a) 94,041 ; 84,405; 33,731

Sol: 33,731 ; 84,405; 94,041 Ans

(b) 19,375 ; 12,921 ; 14,131

Sol: 12,921 ; 14,131; 19,375 Ans

(c) 45,034 ; 37,358; 42,876

Sol: 37,358 ; 42,876; 45,034 Ans

(d) 36,172 ; 35,242 ; 37,723

Sol: 35,242 ; 36,172; 37,723 Ans

(ADDITION AND SUBTRACTION)**Exercise No 1 (TB PG 16)**

Q1. Solve the following.

(a) T.th Th H T O

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

(b) T.th Th H T O

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

(c) T.th Th H T O

	1	1	1	1	
	7	5	6	7	9
+	1	6	8	2	8
	9	2	5	0	7

(d) T.th Th H T O

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

Q2. Solve the following.

(a) 58134 + 45367

Sol	T.th	Th	H	T	O
	1		1	1	
	5	8	1	3	4
+	4	5	3	6	7
	10	3	5	0	1

(b) 78954 + 12236

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

(c) 89764 + 97856

Sol	T.th	Th	H	T	O
	1	1	1	1	
	8	9	7	6	4
+	9	8	7	5	6
	18	8	5	2	0

(d) 53241 + 67543

Sol	T.th	Th	H	T	O
	1				
	5	3	2	4	1
+	6	7	5	4	3
	12	0	7	8	4

(e) 98756 + 56744

Sol	T.th	Th	H	T	O
	1	1	1	1	
	9	8	7	5	6
+	5	6	7	4	4
	15	5	5	0	0

(f) 65432 + 87643

Sol	T.th	Th	H	T	O
	1	1			
	6	5	4	3	2
+	8	7	6	4	3
	15	3	0	7	5

(g) $42115 + 61537$

Sol	T.th	Th	H	T	O
				1	
	4	2	1	1	5
+	6	1	5	3	7
	10	3	6	5	2

(h) $58764 + 65744$

Sol	T.th	Th	H	T	O
	1	1	1		
	5	8	7	6	4
+	6	5	7	4	4
	12	4	5	0	8

(i) $54312 + 68534$

Sol	T.th	Th	H	T	O
	1				
	5	4	3	1	2
+	6	8	5	3	4
	12	2	8	4	6

Q3. Nida bought a 2nd hand laptop for Rs 59,453 and spent Rs 12,652 on repairing. How much money did she spend altogether?

Sol:

$$\text{Cost Price} = \begin{array}{r} 1 \quad 1 \quad 1 \\ 59453 \end{array}$$

$$\text{Repairing} = + \begin{array}{r} 12652 \end{array}$$

$$\text{Total Spent Amount} = \text{Rs } 72105 \text{ Ans}$$

Q4. In January, 83,215 people travelled on an airplane and 21,084 people travelled in February. How many total passengers travelled in two months?

Sol:

$$\text{Passengers travelled in January} = 83215$$

$$\text{Passenger travelled in February} = +21084$$

$$\text{Passengers travelled in two months} = \text{Rs } 104299 \text{ Ans}$$

Q5. In a library there are 42,725 books. Administration decide to add 22,500 new books.

(a) Find the total number of books in the library.

Sol	T.th	Th	H	T	O
		1			
	4	2	7	2	5
+	2	2	5	0	0
	6	5	2	2	5

(b) If 23,890 more books are added then find the total number of books?

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

Q6. A bus covered of 23,672 km in one month, the next month the same bus covered distance of 31,716 km.

(a) Find total distance covered in two months?

Sol:

$$\text{Distance covered in 1st month} = \begin{array}{r} 1 \\ 23672 \end{array}$$

$$\text{Distance covered in 2nd month} = + \begin{array}{r} 31716 \end{array}$$

$$\text{Total distance} = 55388$$

The total distance covered in two months is 55,388 km Ans

(b) In which month did it cover more distance?

Sol: In 2nd month the bus will cover more distance Ans

Exercise 2 (TB page 19)

Q1. Solve the following.

(a)

Sol	T.th	Th	H	T	O
	3		4	15	
	4	3	5	6	2
-		7	3	6	6
	3	6	1	9	6

(b)

Sol	T.th	Th	H	T	O
-----	------	----	---	---	---

			7	13	
	5	6	8	4	¹ 8
-	3	4	3	8	9
	2	2	4	5	9

(c)

Sol	T.th	Th	H	T	O
	⁸			¹	
	8	¹ 3	9	2	¹ 1
-	2	4	6	1	8
	6	9	3	0	3

(d)

Sol	T.th	Th	H	T	O
	⁵			⁶	
	6	¹ 5	6	7	¹ 5
-	1	6	4	4	7
	4	9	2	2	8

(e)

Sol	T.th	Th	H	T	O
	⁴	¹²	¹⁴	¹¹	
	8	8	8	2	¹ 1
-	3	4	6	4	9
	1	8	8	7	2

(f)

Sol	T.th	Th	H	T	O
	²			⁶	
	8	¹ 3	2	7	¹ 5
-	2	6	2	3	8
		7	0	3	7

(g)

Sol	T.th	Th	H	T	O
		⁵	¹¹		
	9	6	2	¹ 3	7
-	7	3	4	5	5
	2	2	7	8	2

(h)

Sol	T.th	Th	H	T	O
-----	------	----	---	---	---

		6		4	
	6	7	¹ 4	8	¹ 3
-	3	2	5	1	4
	3	4	9	3	9

Q2. Solve the following.

Ans. (a) 45158 - 34756

Sol	T.th	Th	H	T	O
		⁴			
	4	8	¹ 1	5	8
-	3	4	7	5	6
	1	0	4	0	2

(b) 97843 - 61732

Sol	T.th	Th	H	T	O
	9	7	8	4	3
-	6	1	7	3	2
	3	6	1	1	1

(c) 99754 + 67584

Sol	T.th	Th	H	T	O
			⁶		
	9	9	7	¹ 5	4
-	6	7	5	8	4
	3	2	1	7	0

(d) 25341 - 16753

Sol	T.th	Th	H	T	O
	¹	¹⁴	¹²	¹³	
	2	5	3	4	1
-	1	6	7	5	3
		8	5	8	8

(e) 85964 - 74544

Sol	T.th	Th	H	T	O
	8	5	9	6	4
-	7	4	5	4	4
	1	1	4	2	0

(f) 63541 - 58463

Sol	T.th	Th	H	T	O
	⁵		⁴	¹³	
	6	¹ 3	8	4	¹ 1
-	5	8	4	6	3
		5	0	7	8

Q3. Saad has Rs 52,490. He bought a bicycle of price was Rs 15,873.

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(a) Now how much money left with him?

Sol Total Amount = Rs 52,490

Cost price of bicycle = Rs 15,873

To find the remaining amount; we will use the process of subtraction

(a)

Sol	T.th	Th	H	T	O
	4	11		8	
	8	2	¹ 4	8	¹ 0
-	1	5	8	7	3
	3	6	6	1	7

The remaining money is Rs 36,617

(b) If the price of the bicycle is Rs 18,759 then how much money will be left?

In this case also we use the process of subtraction

Sol	T.th	Th	H	T	O
	4	11		8	
	8	2	¹ 4	8	¹ 0
-	1	8	7	5	9
	3	3	7	3	1

If the price of a bicycle is Rs 18,759 then the remaining amount will be Rs 33,731 Ans.

Q4. In granary there are 66,375 bags of wheat and rice. If numbers of wheat packets are 44,468 then find out the number bags of rice?

Sol Total bags = 66,375

Number of bags of wheat = 44,468

Number of bags of rice = ?

In this case; we will use the process of subtraction

T.th	Th	H	T	O
	5		6	
	6	8	¹ 3	7
-	4	4	4	6
	2	1	9	0

There are 21,907 bags of rice

Q5. Class three students collected Rs 35,278 for a welfare institution while class four students collected Rs 32,184. How much more amount collected by class three than class four?

Solution

Class 3 collected = Rs 35,278

Class 4 collected = Rs 32,184

To find more amounts collected by class 3 than class 4, we will use the process of subtraction.

Sol

T.th	Th	H	T	O
			1	
	3	5	2	¹ 7
-	3	2	1	8
		3	0	9

Rs 3094 more amount collected by class three than class four Ans

Q6. A candidate got 62,436 votes from one constituency while the other candidate got 86,733. How much more vote did the second candidate get?

Sol:

1st candidate got = 62,436 votes

2nd candidate got = 86,733 votes

To find that how much more vote did the 2nd candidate get; we will use the process of subtraction.

Sol

T.th	Th	H	T	O
			6	12
	8	6	7	3
-	6	2	4	3
	2	4	2	9

Second candidate got 24,297 votes. Ans

Review Exercise 1 (TB pg 20)

Q1. Encircle the correct answer.

(a) The sum of 3652 and 41372 is equal to:

i. 77904

ii. 77903

iii. 45024✓

iv. 77902

(b) The sum of 17278 and 62354 is equal to:

i. 78234

ii. 342211

iii. 79632✓

iv. 213455

(c) Ayesha have Rs 23456. Her friend gave her Rs 13131 more. Now she has Rs

i. 36587✓

ii. 35467

iii. 14765

iv. 34567

(d) when subtract 73810 from 89654 then we will get

- i. 12345 ii. 13245
 iii. 14765 iv. 15844✓
- (e) In a pond there were 87654 fish. If 34567 fish are shifted to another pond then fish will be left in the first pond. _____

- i. 53123 ii. 53456
 iii. 53087✓ iv. 53567

Q2. Solve the following.

(a) T.th Th H T O

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 5 \quad 4 \quad 8 \quad 3 \quad 9 \\
 + \quad 6 \quad 7 \quad 4 \quad 3 \quad 6 \\
 \hline
 12 \quad 2 \quad 2 \quad 7 \quad 5
 \end{array}$$

(b) T.th Th H T O

$$\begin{array}{r}
 1 \quad 1 \\
 6 \quad 3 \quad 5 \quad 6 \quad 3 \\
 + \quad 4 \quad 2 \quad 8 \quad 2 \quad 7 \\
 \hline
 10 \quad 6 \quad 3 \quad 9 \quad 0
 \end{array}$$

(c) T.th Th H T O

$$\begin{array}{r}
 1 \quad 1 \quad 1 \quad 1 \\
 7 \quad 8 \quad 9 \quad 3 \quad 8 \\
 + \quad 1 \quad 2 \quad 4 \quad 7 \quad 5 \\
 \hline
 9 \quad 1 \quad 4 \quad 1 \quad 3
 \end{array}$$

(d) T.th Th H T O

$$\begin{array}{r}
 3 \quad 13 \\
 6 \quad 7 \quad 3 \quad 4 \quad 13 \\
 - \quad 4 \quad 1 \quad 2 \quad 3 \quad 5 \\
 \hline
 2 \quad 6 \quad 1 \quad 0 \quad 8
 \end{array}$$

(e) T.th Th H T O

$$\begin{array}{r}
 8 \quad 3 \quad 8 \quad 9 \quad 3 \\
 - \quad 2 \quad 3 \quad 1 \quad 0 \quad 1 \\
 \hline
 6 \quad 0 \quad 7 \quad 9 \quad 2
 \end{array}$$

(f) T.th Th H T O

Q3. Solve the following.

(a) 45234 + 12345

Sol T.th Th H T O

$$\begin{array}{r}
 2 \quad 3 \\
 3 \quad 3 \quad 2 \quad 7 \quad 15 \\
 - \quad 2 \quad 6 \quad 2 \quad 3 \quad 8 \\
 \hline
 0 \quad 7 \quad 0 \quad 3 \quad 7
 \end{array}$$

(b) 24567 + 13466

Sol T.th Th H T O

$$\begin{array}{r}
 1 \quad 1 \quad 1 \\
 2 \quad 4 \quad 5 \quad 6 \quad 7 \\
 + \quad 1 \quad 3 \quad 4 \quad 6 \quad 6 \\
 \hline
 3 \quad 8 \quad 0 \quad 3 \quad 3
 \end{array}$$

(c) 90766 + 38967

Sol T.th Th H T O

$$\begin{array}{r}
 2 \quad 1 \quad 1 \\
 9 \quad 0 \quad 7 \quad 6 \quad 6 \\
 + \quad 3 \quad 8 \quad 9 \quad 6 \quad 7 \\
 \hline
 12 \quad 9 \quad 7 \quad 3 \quad 3
 \end{array}$$

(d) 46525 - 23145

Sol T.th Th H T O

$$\begin{array}{r}
 4 \\
 4 \quad 6 \quad 5 \quad 12 \quad 5 \\
 - \quad 2 \quad 3 \quad 1 \quad 4 \quad 5 \\
 \hline
 2 \quad 3 \quad 3 \quad 8 \quad 0
 \end{array}$$

(e) 76247 - 74166

Sol T.th Th H T O

$$\begin{array}{r}
 1 \\
 7 \quad 6 \quad 2 \quad 14 \quad 7 \\
 - \quad 7 \quad 4 \quad 1 \quad 6 \quad 6 \\
 \hline
 0 \quad 2 \quad 0 \quad 8 \quad 1
 \end{array}$$

(f) 46016 - 20989

Sol T.th Th H T O

Sol	T.th	Th	H	T	O
-----	------	----	---	---	---

Sol	H	T	O
	1		
	6	3	1
		x	4
2	5	2	4

$631 \times 4 = 2524$ Ans

(b) 431×35

			H	T	O
			4	3	1
			\times	3	5
		2	1	5	5
+	1	2	9	3	0
	1	5	0	8	5

$431 \times 35 = 15085$ Ans

(c) 8434×31

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

$8434 \times 31 = 261454$ Ans

(d) 8046×678

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

$8046 \times 78 = 627588$ Ans

(e) 7601×46

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

$7601 \times 46 = 349646$

(f) 4117×80

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

$4117 \times 80 = 329360$ Ans

(g) 7976×15

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

$7976 \times 15 = 119640$ Ans

(h) 6350×30

				Th	H	T	O
				1	1		
				6	3	5	0
			\times			3	0
		0	0	0	0	0	
+	1	9	0	5	0	0	
	1	9	0	5	0	0	

$6350 \times 30 = 190500$ Ans

(i) 1098×37

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

$1098 \times 37 = 40626$ Ans

M. Ali 0310 1190027

Q2. A shopkeeper sold 3452 m cloth in a week. How much cloth will he sell in 21 weeks?

Sol

Cloth sold in a week = 3452m

Cloth sold in 21 weeks = ?

In this case we will use process of multiplication.

$$\begin{array}{r}
 3452 \\
 \times 21 \\
 \hline
 6904 \\
 + 72420 \\
 \hline
 72492
 \end{array}$$

The shopkeeper sold 72492 m cloth in 21 weeks. **Ans**

Q3. Liaquat earns Rs 1045 in a day. Find:

(a) How much money will he earned in 45 days?

Liaquat earns in a day = Rs 1045

Liaquat earns in 45 days = ?

$$\begin{array}{r}
 1045 \\
 \times 45 \\
 \hline
 5225 \\
 + 41800 \\
 \hline
 47025
 \end{array}$$

Liaquat earns Rs 47025 in 45 days **Ans**

(b) How much money will he earned in 90 days?

Sol: To find out how much money he earned in 90 days.

$$1045 \times 90 = 94050$$

$$\begin{array}{r}
 1045 \\
 \times 90 \\
 \hline
 0000 \\
 + 94050 \\
 \hline
 94050
 \end{array}$$

Liaquat earns Rs 94050 in 90 days. **Ans**

Q4. In a Factory, 20,13 notebooks were printed in a day. How many notebooks will be printed in 210 days?

Sol: Printed notebooks in one day = 20,13

Printed notebooks in 210 days = ?

To find how many notebooks printed in 27 days, we will multiply it by 2013.

$$\begin{array}{r}
 2013 \\
 \times 27 \\
 \hline
 14091 \\
 + 40260 \\
 \hline
 54351
 \end{array}$$

Factory printed 54351 notebooks in 27 days.

Q5. Each member of a group give Rs 3,415 for a tour of Naran and Kagan. If there are 63 member of the group. How much money will be collected altogether?

Sol: Each member gave = Rs 3415
63 members gave = ?

$$\begin{array}{r}
 3415 \\
 \times 63 \\
 \hline
 10245 \\
 + 204900 \\
 \hline
 215145
 \end{array}$$

He will collected Rs 2,15,145 altogether. **Ans**

Exercise 2 (TB Pg 29)

Q1. Solve the following.

(a) $3 \overline{)585}$

195 ← Quotient

$$3 \overline{)585}$$

$$\begin{array}{r} -3 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 27 \\ \hline 015 \end{array}$$

$$\begin{array}{r} 15 \\ \hline 0 \end{array}$$

0 ← Remainder

(b) $4 \overline{)1816}$

454 ← Quotient

$$4 \overline{)1816}$$

$$\begin{array}{r} -16 \\ \hline 021 \end{array}$$

$$\begin{array}{r} 20 \\ \hline 016 \end{array}$$

$$\begin{array}{r} 16 \\ \hline 0 \end{array}$$

0 ← Remainder

(c) $42 \overline{)6972}$

166 ← Quotient

$$\begin{array}{r} 42 \overline{)6972} \\ -42 \\ \hline 277 \\ -252 \\ \hline 252 \\ -252 \\ \hline 0 \end{array}$$

0 ← Remainder

(d) $22 \overline{)7546}$

343 ← Quotient

$$\begin{array}{r} 22 \overline{)7546} \\ -44 \\ \hline 314 \\ -22 \\ \hline 94 \\ -88 \\ \hline 66 \\ -66 \\ \hline 0 \end{array}$$

0 ← Remainder

$21 \leftarrow \text{Quotient}$

$$\begin{array}{r} 88 \overline{)1848} \\ -176 \\ \hline 0088 \\ -88 \\ \hline 0 \end{array}$$

0 ← Remainder

$111 \leftarrow \text{Quotient}$

$$\begin{array}{r} 42 \overline{)4662} \\ -42 \\ \hline 046 \\ -42 \\ \hline 42 \\ -42 \\ \hline 0 \end{array}$$

0 ← Remainder

(e) $23 \overline{)9568}$

416 ← Quotient

$$\begin{array}{r} 23 \overline{)9568} \\ -92 \\ \hline 036 \\ -23 \\ \hline 138 \\ -138 \\ \hline 0 \end{array}$$

0 ← Remainder

(f) $31 \overline{)9641}$

311 ← Quotient

$$\begin{array}{r} 31 \overline{)9641} \\ -93 \\ \hline 034 \\ -31 \\ \hline 031 \\ -31 \\ \hline 0 \end{array}$$

0 ← Remainder

(m) $6125 \div 10$

612 ← Quotient

$$\begin{array}{r} 10 \overline{)6125} \\ -60 \\ \hline 012 \\ -10 \\ \hline 025 \\ -20 \\ \hline 5 \end{array}$$

5 ← Remainder

(n) $2060 \div 23$

89 ← Quotient

$$\begin{array}{r} 23 \overline{)2060} \\ -184 \\ \hline 220 \\ -207 \\ \hline 013 \end{array}$$

013 ← Remainder

(g) $12 \overline{)2868}$

239 ← Quotient

$$\begin{array}{r} 12 \overline{)2868} \\ -24 \\ \hline 046 \\ -36 \\ \hline 108 \\ -108 \\ \hline 0 \end{array}$$

0 ← Remainder

(h) $32 \overline{)7392}$

231 ← Quotient

$$\begin{array}{r} 32 \overline{)7392} \\ -64 \\ \hline 099 \\ -96 \\ \hline 032 \\ -32 \\ \hline 0 \end{array}$$

0 ← Remainder

Q2. In 45 relief camps, 2340 blankets were distributed. How many blankets did one camp get?

Sol: 45 relief camp set = 2340

1 relief camp set = ?

Find how many blankets we will use the process of division.

$$\begin{array}{r} 45 \overline{)2340} \\ -225 \\ \hline 90 \\ -90 \\ \hline 0 \end{array}$$

52 ← Q

0 ← R

So, One camp get "52" blankets

Q3. If 1107 chairs are placed in 27 rows how many chairs will be there in a row?

Sol: 27 rows contain = 1107 chairs

To find that how many chairs in one row, we will divide 1107 by 27

$$\begin{array}{r} 27 \overline{)1107} \\ -108 \\ \hline 27 \\ -27 \\ \hline 0 \end{array}$$

41 ← Q

0 ← R

There are 41 chairs in one row Ans

(i) $133 \div 11$

12 ← Quotient

$$\begin{array}{r} 11 \overline{)133} \\ -11 \\ \hline 23 \\ -22 \\ \hline 1 \end{array}$$

1 ← Remainder

(j) $1056 \div 8$

132 ← Quotient

$$\begin{array}{r} 8 \overline{)1056} \\ -8 \\ \hline 25 \\ -24 \\ \hline 016 \\ -16 \\ \hline 0 \end{array}$$

0 ← Remainder

(k) $1848 \div 88$

(l) $4662 \div 42$

Focus Student Resource Book

Q4. If 3036 biscuit are 11 boxes then find out how many biscuits in a box?

Sol: 11 boxes contain = 3036 biscuits
1 box contains = ?

To find how many biscuits in a box, we will use the process of division.

$$\begin{array}{r} 276 \\ 11 \overline{) 3036} \\ \underline{- 22} \\ 83 \\ \underline{- 77} \\ 66 \\ \underline{- 66} \\ 0 \end{array}$$

There are 276 biscuits in each box. Ans

Q5. If 6666 books are to be kept in 33 cupboards in a library, how many books will be in each cupboard?

Sol: 33 cupboards contain = 6666 books
1 cupboard contains = ?

To find how many book in 1 cupboard, we will use the process of division

$$\begin{array}{r} 202 \\ 33 \overline{) 6666} \\ \underline{- 66} \\ 066 \\ \underline{- 66} \\ 0 \end{array}$$

Each cupboard contains 202 books.

Q6. Saad bought 10 washing machines for Rs 8950 and an oven for Rs 1550.

(a) How much money did he spend altogether?

Cost of 10 washing machines = Rs 8950

Cost of one oven = Rs 1550 +

Total spend amount = Rs 10500 Ans

(b) How much more amount did he spend on washing machines than an oven?

Sol: In this case we will use the process of subtraction.

$$\begin{array}{r} 8950 \\ - 1550 \\ \hline 7400 \end{array}$$

He needs to spend more Rs 7400 amounts.

(c) In how much amount did he spend on a washing machine?

Sol: To find the amount Saad spend on each washing machine, we will divide Rs 8950 by 10.

$$\begin{array}{r} 895 \\ 10 \overline{) 8950} \\ \underline{- 80} \\ 95 \\ \underline{- 90} \\ 50 \\ \underline{- 50} \\ 0 \end{array}$$

Spend amount on each washing machine is Rs 895. Ans

Q7. In 30 packets, 1350 kg rice are packed. Find:

(a) How many kilogram of rice are in one packet?

Total rice = 1350 kg

No. of packets = 30

To find how many kg of rice are in one packet we will use the process of division.

$$\begin{array}{r} 45 \\ 30 \overline{) 1350} \\ \underline{- 120} \\ 150 \\ \underline{- 150} \\ 0 \end{array}$$

45 kg of rice are in one packet

(b) How many kilogram rice will be packet in 38 packed?

38 packets contain = 38×45 kg

= 1710 kg

of rice will be packed in 38 packets.

Exercise 3 (TB page 32)

Q1. Observe the given patterns, describe the rule and write the next two terms.

(a) 11, 15, 19, 23, 27, 31, 35.

Sol

$$\begin{array}{ccccccccc} 11, & 15, & 19, & 23, & 27, & 31, & 35 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +4 & +4 & +4 & +4 & +4 & +4 & +4 \end{array}$$

So, the rule of pattern is adding 4. Ans

The next two terms are 31, 35 Ans

(b) 30, 60, 90, 120, 150, 180, 210

Sol
30, 60, 90, 120, 150, 180, 210
+30 +30 +30 +30 +30 +30

So, the rule of pattern is adding 30. Ans
The next two terms are 180, 210 Ans

(c) 6, 12, 18, 24, 30, 36, 42

Sol
6, 12, 18, 24, 30, 36, 42
+6 +6 +6 +6 +6 +6

So, the rule of pattern is adding 6. Ans
The next two terms are 36, 42 Ans

(d) 850, 800, 750, 700, 650, 600, 550

Sol
850, 800, 750, 700, 650, 600, 550
-50 -50 -50 -50 -50 -50

So, the rule of pattern is subtracting 50. Ans
The next two terms are 600, 550 Ans

(e) 106, 103, 100, 97, 94, 91, 88

Sol
106, 103, 100, 97, 94, 91, 88
-3 -3 -3 -3 -3 -3

So, the rule of pattern is subtracting 3. Ans
The next two terms are 91, 88. Ans

(f) 284, 288, 292, 296, 300, 304

Sol
284, 288, 292, 296, 300, 304

So, the rule of pattern is adding 4. Ans
The next two terms are 300, 304. Ans

(g) 560, 540, 520, 500, 480, 460

Sol
560, 540, 520, 500, 480, 460
-20 -20 -20 -20 -20

So, the rule of pattern is subtracting 20. Ans

The next two terms are 480, 460 Ans

Q2. Observe the given chart and find at least 5 patterns. Also set the rules for these patterns.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Sol:

1st Position: - 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

Rule: The rule of this pattern is adding "10"

2nd pattern: -

95, 85, 75, 65, 55, 45, 35, 25, 15, 5

Rule: The rule of this pattern is subtracting "5".

3rd Pattern: - 1, 12, 23, 34, 45, 56, 67, 78, 89, 100

Rule: The rule of this pattern is adding "11".

4th Pattern:

91, 82, 73, 64, 55, 46, 37, 28, 19, 10

Rule: The rule of this pattern is subtraction "9".

5th Pattern: 8, 18, 28, 38, 48, 58, 68, 78, 88, 98

Rule: The rule of this pattern is adding "10"

Q3. Observe the table gives below and describe the rule of pattern.

(a)

Rule: Adding "4"	
Weeks	Height of the plant
1	4 cm
2	8 cm
3	12 cm
4	16 cm

5 20 cm

(b) Rule: Adding "20"

Boxes of blocks	Total number of blocks
1	20
2	40
3	60
4	80
5	100

REVIEW EXERCISE (TB PG 34)

Q1. Circle the correct answer.

(a)	There are 4500 plants in 90 rows. Each row contains equal number of plants. Find the number of plants in row.	
(i)	100	(ii) 10
(iii)	5	(iv) 50✓
(b)	If the price of one book is Rs 250 then the price of 22 books will be .	
(i)	Rs 5555	(ii) Rs 5550
(iii)	Rs 5500✓	(iv) Rs 5000
(c)	By dividing 3960 by 88, we will get	
(i)	41	(ii) 47
(iii)	46	(iv) 45✓
(d)	6,18,30,42	
(i)	48	(ii) 54✓
(iii)	56	(iv) 46
(e)	The next term in 88,78,68, is	
(i)	98	(ii) 58✓
(iii)	48	(iv) 47

Q2. Solve the following.

(a) 245×2

Sol:

$$\begin{array}{r} 245 \\ \times 2 \\ \hline 490 \end{array}$$

$245 \times 2 = 490$ Ans

(b) 743×12

Sol:

$$\begin{array}{r} 743 \\ \times 12 \\ \hline 1486 \\ + 7430 \\ \hline 8916 \end{array}$$

$743 \times 12 = 8916$

(c) 4324×41

Sol:

$$\begin{array}{r} 4324 \\ \times 41 \\ \hline 4324 \\ + 17296 \\ \hline 177284 \end{array}$$

$4324 \times 41 = 177284$

(d) 1245×13

$$\begin{array}{r} 1245 \\ \times 13 \\ \hline 3735 \\ + 12450 \\ \hline 16185 \end{array}$$

$1245 \times 13 = 16185$

Q3. Solve the following.

(a) $380 \div 5$ (Q = 76, R = 0 Ans)

$$\begin{array}{r} 76 \leftarrow \text{Quotient} \\ 5 \overline{) 380} \\ \underline{- 35} \\ 30 \\ \underline{- 30} \\ 0 \leftarrow \text{Remainder} \end{array}$$

(b) $196 \div 12$ (Q = 16, R = 4 Ans)

$$\begin{array}{r} 16 \leftarrow \text{Quotient} \\ 12 \overline{) 196} \\ \underline{- 12} \\ 76 \\ \underline{- 72} \\ 4 \leftarrow \text{Remainder} \end{array}$$

(c) $2925 \div 6$

$$\begin{array}{r} 487 \leftarrow \text{Quotient} \\ 6 \overline{) 2925} \\ \underline{- 24} \\ 52 \\ \underline{- 48} \\ 45 \\ \underline{- 42} \\ 3 \end{array}$$

$$\begin{array}{r} 6 \overline{) 2925} \\ - 24 \\ \hline 52 \\ 48 \\ \hline 45 \\ 42 \\ \hline 3 \end{array} \leftarrow \text{Remainder}$$

$$Q = 487, R = 3 \text{ Ans}$$

$$(d) \quad 3294 \div 61$$

$$\begin{array}{r} 54 \leftarrow \text{Quotient} \\ 61 \overline{) 3294} \\ - 305 \\ \hline 244 \\ 244 \\ \hline 0 \end{array} \leftarrow \text{Remainder}$$

$$Q = 54, R = 0 \text{ Ans}$$

$$(e) \quad 1766 \div 22$$

$$\begin{array}{r} 80 \leftarrow \text{Quotient} \\ 22 \overline{) 1766} \\ - 176 \\ \hline 0 \end{array} \leftarrow \text{Remainder}$$

$$Q = 80, R = 6 \text{ Ans}$$

$$(f) \quad 2205 \div 49$$

$$\begin{array}{r} 45 \leftarrow \text{Quotient} \\ 49 \overline{) 2205} \\ - 196 \\ \hline 245 \\ 245 \\ \hline 0 \end{array} \leftarrow \text{Remainder}$$

$$Q = 45, R = 0 \text{ Ans}$$

Q4. A bus has the capacity of 75 passengers. How many buses would be needed for 1575 passenger?

Sol: Capacity of each bus = 75 Passengers
To find the numbers of buses we will divide 1575 by 75.

$$\begin{array}{r} 21 \leftarrow \text{Quotient} \\ 75 \overline{) 1575} \\ - 150 \\ \hline 75 \\ 75 \\ \hline 0 \end{array} \leftarrow \text{Remainder}$$

21 buses were needed for 1575 passengers.

Ans

Q5. A car covers 1288 km in 23 hours. Find

(a) How much distance would it cover in one hour?

Sol: Distance covered = 1288 km

Time taken = 23 hours

To find that car will cover distance in one hour, we will divide 1288 by 23.

$$\begin{array}{r} 56 \leftarrow \text{Quotient} \\ 23 \overline{) 1288} \\ - 115 \\ \hline 138 \\ 115 \\ \hline 238 \\ 238 \\ \hline 0 \end{array} \leftarrow \text{Remainder}$$

The car will cover 56 km in one hour. Ans

(b) How much distance would it cover in 11 hours?

Sol: To find the distance covered by a car in 11 hours,

We will multiply 11 by 56.

$$\begin{array}{r} 56 \\ \times 11 \\ \hline 56 \\ + 560 \\ \hline 616 \end{array}$$

The car will cover 616 km in 11 hours.

Q6. A man pays Rs 23,452 as one month installment of the car. Find:

(a) How much will he pay in 2 years?

Sol 1 year = 12 months

2 years = 2×12 months

= 24 months

$$\begin{array}{r} 1 \\ 23452 \\ \times 24 \\ \hline 93808 \\ + 469040 \\ \hline 562848 \end{array}$$

He will pay Rs 562,848 in 2 years Ans

(b) How much will he pay in 3 years?

1 year = 12 months

$$3 \text{ years} = 3 \times 12 \text{ months} \\ = 36 \text{ months}$$

$$\begin{array}{r} 1 \quad 1 \quad 1 \\ 2 \quad 2 \quad 3 \quad 1 \\ 2 \quad 3 \quad 4 \quad 5 \quad 2 \\ \times \quad \quad \quad 3 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \quad 4 \quad 0 \quad 7 \quad 1 \quad 2 \\ + 7 \quad 0 \quad 3 \quad 5 \quad 6 \quad 0 \\ \hline 8 \quad 4 \quad 4 \quad 2 \quad 7 \quad 2 \end{array}$$

He will pay Rs 844,292 in 3 years. Ans

Q7. Zaeem has 1867 lego blocks. His sister gives him 4 more boxes of lego blocks. There are 1205 blocks in one box. How many lego blocks Zaeem has in total?

$$\begin{array}{r} 1 \quad 4 \quad 8 \quad 2 \quad 0 \\ + 1 \quad 8 \quad 6 \quad 7 \\ \hline 6 \quad 6 \quad 8 \quad 7 \end{array}$$

Sol: Each box contains = 1205 lego blocks

4 boxes contains = 4×1205 lego blocks

= 4820 lego blocks

Already Zaeem has 1867 lego blocks.

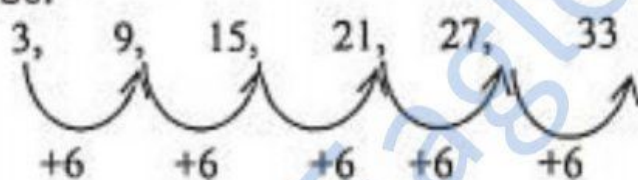
Total lego blocks = $1867 + 4820$

= 6687 Ans

Q8. Observe the given patterns, identify the rule and write the next two terms.

(a) 3, 9, 15, 21, _____, _____.

Sol

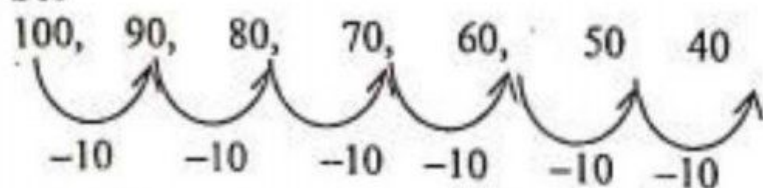


So, the rule of pattern is adding 6. Ans

The next two terms are 27, 33 Ans

(b) 100, 90, 80, 70, 60, _____, _____.

Sol

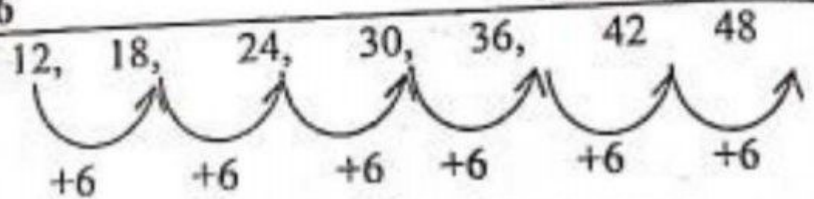


So, the rule of pattern is subtracting 10.

The next two terms are 50, 40. Ans

(c) 12, 18, 24, 30, 36, _____, _____.

Sol

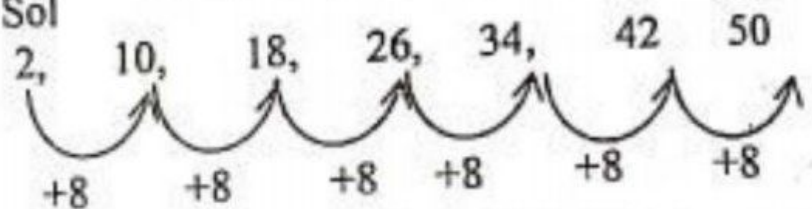


So, the rule of pattern is adding 6. Ans

The next two terms are 42, 48 Ans.

(d) 2, 10, 18, 26, 34, _____, _____.

Sol

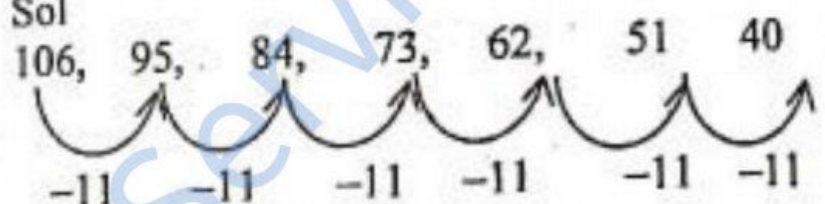


So, the rule of pattern is adding 8 Ans.

The next two terms are 42, 50 Ans.

(e) 106, 95, 84, 73, 62, _____, _____.

Sol



So, the rule of pattern is subtracting 11. Ans

The next two terms are 51, 40 Ans.

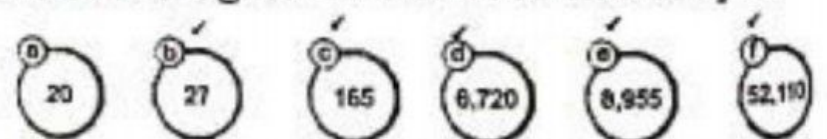
Unit 02 (FACTORS AND MULTIPLES)

Exercise 1 (TB pg 39)

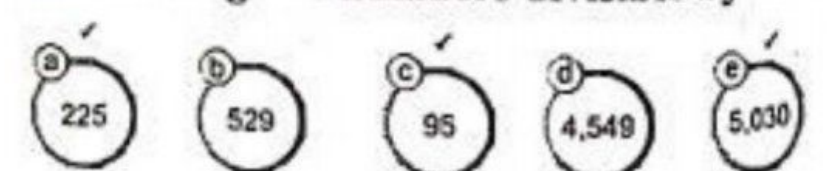
1. Mark the given numbers divisible by 2?



2. Mark the given numbers divisible by 3?



3. Mark the given numbers divisible by 5?



4. Encircle the number that are divisible by 10?



Exercise 2 (TB pg 42)

Q1. Write all composite numbers between 30 and 50.

Sol: All the composite numbers between 30 and 50 are

32,33,34,35,36,38,39,40,42,44,45,46,48,49.

Q2. Encircle the prime numbers

(a)	15	(b)	31	(c)	42	(d)	67
(e)	11	(f)	52	(g)	98	(h)	89

Q3. Write the first 15 prime numbers

Sol: The first "15" prime numbers are 2,3,5,7,11,13,17,19,23,29,31,37,41,43,47 Ans

Q4. Identify the composite numbers and colour them.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Q5. Find the factors of the given numbers.

(a) 12

Sol

$$\begin{aligned}
 12 &= 1 \times 12 \\
 &= 2 \times 6 \\
 &= 3 \times 4 \\
 &= 4 \times 3 \\
 &= 6 \times 2
 \end{aligned}$$

$$= 12 \times 1$$

The factors of 12 are: 1,2,3,4,6 and 12 Ans.

(b) 15

Sol

$$\begin{aligned}
 15 &= 1 \times 15 \\
 &= 3 \times 5 \\
 &= 5 \times 3 \\
 &= 15 \times 1
 \end{aligned}$$

The factors of 15 are 1,3,5 and 15 Ans.

(c) 32

Sol

$$\begin{aligned}
 32 &= 1 \times 32 \\
 &= 2 \times 16 \\
 &= 4 \times 8 \\
 &= 8 \times 4 \\
 &= 16 \times 2 \\
 &= 32 \times 1
 \end{aligned}$$

The factors of 32 are 1,2,4,8,16 and 32 Ans

(d) 10

Sol

$$\begin{aligned}
 10 &= 1 \times 10 \\
 &= 2 \times 5 \\
 &= 5 \times 2 \\
 &= 10 \times 1
 \end{aligned}$$

The factors of 10 are 1,2,5,10 Ans

(e) 27

Sol

$$\begin{aligned}
 27 &= 1 \times 27 \\
 &= 3 \times 9 \\
 &= 9 \times 3 \\
 &= 27 \times 1
 \end{aligned}$$

The factors of 27 are 1,3,9,27 Ans

(f) 22

Sol

$$\begin{aligned}
 22 &= 1 \times 22 \\
 &= 2 \times 11 \\
 &= 11 \times 2 \\
 &= 22 \times 1
 \end{aligned}$$

The factors of 22 are 1,2,11,22 Ans

(g) 6

Sol

$$\begin{aligned}
 6 &= 1 \times 6 \\
 &= 2 \times 3 \\
 &= 3 \times 2 \\
 &= 6 \times 1
 \end{aligned}$$

The factors of 6 are 1,2,3 and 6 Ans.

(h) 49

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$$\begin{array}{lcl} \text{Sol} & 49 & = 1 \times 49 \\ & & = 7 \times 7 \\ & & = 49 \times 1 \end{array}$$

Factors of 49 are 1, 7 and 49 Ans.

$$\begin{array}{lcl} \text{(i)} & 40 & \\ \text{Sol} & 40 & = 1 \times 40 \\ & & = 2 \times 20 \\ & & = 4 \times 10 \\ & & = 5 \times 8 \\ & & = 8 \times 5 \\ & & = 10 \times 4 \\ & & = 20 \times 2 \\ & & = 40 \times 1 \end{array}$$

The factors of 40 are: 1, 2, 4, 5, 8, 10, 20 and 40.

$$\begin{array}{lcl} \text{(j)} & 38 & \\ \text{Sol} & 38 & = 1 \times 38 \\ & & = 2 \times 19 \\ & & = 19 \times 2 \\ & & = 38 \times 1 \end{array}$$

The factors of 38 are 1, 2, 19 and 38 Ans

Q6. Find the first ten multiples of the given numbers.

(a) 3
Sol: The first ten multiple of "3" are 3, 6, 9, 12, 15, 18, 21, 24, 27, 30

(b) 5
Sol: The first ten multiples of "5" are 5, 10, 15, 20, 25, 30, 35, 40, 45 and 50

(c) 8
Sol: The first ten multiples of "8" are: 8, 16, 24, 32, 40, 48, 56, 64, 72 and 80, Ans.

(d) 2
Sol: The first ten multiples of "2" are 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 Ans.

(e) 7
Sol: The first ten multiples of 7 are 7, 14, 21, 28, 35, 42, 49, 56, 63, 70 Ans

(f) 6
The first ten multiples of 6 are: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60 Ans

(g) 4
Sol: The first ten multiples of 4 are: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40 Ans

(h) 9

Sol: The first ten multiples of 9 are: 9, 18, 27, 36, 45, 54, 63, 72, 81, 90 Ans
1, 2, 3 and 6 Ans

Exercise 3 (TB Pg 46)

Q1. Find the prime factors of the given numbers.

(a) 17

Sol

17	17
	1

The prime factors of 17 are 17 and 1 Ans

(b) 21

Sol

3	21
7	7
	1

The prime factors of 21 are 3 and 7. Ans

(c) 34

Sol

2	34
17	17
	1

The prime factors of 34 are 2 and 17 Ans.

(d) 18

Sol

2	18
3	9
3	3
	1

The prime factors of 18 are 2, 3, 3. Ans

(e) 44

Sol

2	44
2	22
11	11
	1

The prime factors of 44 are 2, 2, 11. Ans

(f) 33

Sol

3	33
11	11
	1

The prime factors of 33 are 3, 11 Ans

(g) 4

Sol

2	4
2	2
	1

The prime factors of 4 are 2, 2. Ans

(h) 14

Sol

2	14
---	----

7	7
	1

The prime factors of 14 are 2, 7. Ans

(i) 48

Sol

2	48
2	24
2	12
2	6
3	3
	1

The prime factors of 48 are 2, 2, 2, 2, 3. Ans

(j) 39

Sol

3	39
13	13
	1

The prime factors of 39 are 3, 13. Ans

Q2. Find the common factors of the given numbers.

(a) 6, 18

Sol $6 = 1 \times 6$, $18 = 1 \times 18$
 $= 2 \times 3$ | $= 2 \times 9$
 $= 3 \times 2$ | $= 3 \times 6$
 $= 6 \times 1$ | $= 6 \times 3$
 $= 18 \times 1$

Factors of 6 are
1, 2, 3, 6

factor of 18 are
1, 2, 3, 6, 18

So, the common factors of 6 and 18 are 1, 2, 3, 6
Ans

(b) 10, 20

Sol $10 = 1 \times 10$, $20 = 1 \times 20$
 $= 2 \times 5$ | $= 2 \times 10$
 $= 5 \times 2$ | $= 4 \times 5$
 $= 10 \times 1$ | $= 5 \times 4$
 $= 20 \times 1$

Factors of 10 are
1, 2, 5, 10

factor of 20 are
1, 2, 4, 5, 10, 20

So, the common factor of 10 and 20 are
1, 2, 5, 10 Ans

(c) 24, 32, 18

Sol $24 = 1 \times 24$, $32 = 1 \times 32$
 $= 2 \times 12$ | $= 2 \times 16$
 $= 3 \times 8$ | $= 4 \times 8$
 $= 4 \times 6$ | $= 8 \times 4$

$$= 6 \times 4$$

$$= 8 \times 3$$

$$= 12 \times 2$$

$$= 24 \times 1$$

$$= 16 \times 2$$

$$= 32 \times 1$$

Factor of 24 are
1, 2, 3, 4, 6, 8, 12, 24

factor of 24
1, 2, 4, 8, 16, 32

Sol $18 = 1 \times 18$
 $= 2 \times 9$
 $= 3 \times 6$
 $= 6 \times 3$
 $= 9 \times 2$
 $= 18 \times 1$

Factor of 18 are 1, 2, 3, 6, 9, 18

So, the common sector of 24, 32, 18 are 1, 2 Ans

(d) 14, 30

Sol $14 = 1 \times 14$ | $30 = 1 \times 30$
 $= 2 \times 7$ | $= 2 \times 15$
 $= 7 \times 2$ | $= 5 \times 6$
 $= 14 \times 1$ | $= 6 \times 5$
 $= 15 \times 2$
 $= 30 \times 1$

Factor of 14 are
1, 2, 7, 14

factor of 30 are
1, 2, 5, 6, 15, 30

So, the common factors of 14, 30 are 1 and 2
Ans.

(e) 7, 21, 28

Sol $7 = 1 \times 7$

Factor of 7 are 1, 7

Sol $21 = 1 \times 21$ | $28 = 1 \times 28$
 $= 3 \times 7$ | $= 2 \times 14$
 $= 7 \times 3$ | $= 4 \times 7$
 $= 21 \times 1$ | $= 7 \times 4$
 $= 14 \times 2$
 $= 28 \times 1$

factor of 21 are
1, 3, 7, 21

factor of 28 are
1, 2, 4, 7, 14, 28

So, the common factors of 7, 21, 28 are 1, 7 Ans

(f) 20, 25, 15

Sol $20 = 1 \times 20$ | $25 = 1 \times 25$
 $= 2 \times 10$ | $= 5 \times 5$
 $= 4 \times 5$ | $= 25 \times 1$

$$\begin{aligned}
 &= 5 \times 4 \\
 &= 10 \times 2 \\
 &= 20 \times 1
 \end{aligned}$$

Factors of 20 are
1, 2, 4, 5, 10, 20

factors of 25 are
1, 5, 25

$$\begin{aligned}
 15 &= 1 \times 15 \\
 &= 3 \times 5 \\
 &= 5 \times 3 \\
 &= 15 \times 1
 \end{aligned}$$

Factors of 15 are 1, 3, 5, 15

So, the common factors of 20, 25, 15 are 1, 5

Ans

(g) 4, 8

$$\begin{aligned}
 \text{Sol } 4 &= 1 \times 4 & 8 &= 1 \times 8 \\
 &= 2 \times 2 & &= 2 \times 4 \\
 &= 4 \times 1 & &= 4 \times 2 \\
 & & &= 8 \times 1
 \end{aligned}$$

Factor of 4 are
1, 2, 4

factor of 8 are
1, 2, 4, 8

So, the common factors of 4 and 8 are 1, 2, 4

(h) 13, 39

$$\begin{aligned}
 13 &= 1 \times 13 \\
 &= 13 \times 1 \text{ factor of 13 are 1, 13}
 \end{aligned}$$

$$\begin{aligned}
 39 &= 1 \times 39 & \text{Factor of 39 are} \\
 &= 3 \times 13 & 1, 3, 13, 39 \\
 &= 13 \times 3 & \text{So, the common factor of} \\
 &= 39 \times 1 & 13, 39, \text{ are 1, 3 Ans}
 \end{aligned}$$

(i) 5, 30, 12

$$\begin{aligned}
 5 &= 1 \times 5 \\
 &= 5 \times 1 \text{ factors of 5 are 1, 5}
 \end{aligned}$$

$$\begin{aligned}
 \text{Sol } 30 &= 1 \times 30 & 12 &= 1 \times 12 \\
 &= 2 \times 15 & &= 2 \times 6 \\
 &= 3 \times 10 & &= 3 \times 4 \\
 &= 5 \times 6 & &= 4 \times 3 \\
 &= 6 \times 5 & &= 6 \times 2 \\
 &= 10 \times 3 & &= 12 \times 1
 \end{aligned}$$

$$\begin{aligned}
 &= 15 \times 2 \\
 &= 30 \times 1
 \end{aligned}$$

Factors of 12 are
1, 2, 3, 4, 6, 12

Factors of 30 are
1, 2, 3, 5, 6, 10, 15, 30

Q3. Find the first common multiple of the given numbers.

(a) 3, 5

Sol: The multiples of 3 are
3, 6, 9, 12, 15, 18, 21, 24, ...

The multiples of 5 are
5, 10, 15, 20, 25, ...

The first common multiple of 3, 5 is 15 ans.

(b) 9, 12

Sol: the multiples of 9 are
9, 18, 27, 36, 45, 54, ...

The multiples of 12 are 12, 24, 36, 48, 60, ...

So, first the common multiple of 9, 12 is 36

Ans.

(c) 10, 20, 30

Sol: The multiples of 10 are
10, 20, 30, 40, 50, 60, 70, 80, ...

The multiple of 20 are
20, 40, 60, 80, 100, ...

The multiples of 30 are
30, 60, 90, 120, 150, ...

So, the first common multiples of
10, 20, 30 is 60 Ans

(d) 12, 22

Sol: The multiples of 12 are
12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132,
144, ...

The multiples of 22 are
22, 44, 66, 88, 110, 132, 164, ...

So, the first common multiple of 12 and 22 is
132 Ans.

(e) 8, 4, 16

Sol: The multiples of 8 are 8, 16, 24, 32, 40, ...

The multiples of 4 are 4, 8, 12, 16, 20, 24, ...

The multiples of 16 are 16, 32, 48, 64, ...

So, the first common multiple of 8, 4, 16 is 16

(f) 51, 17, 34

Sol: The multiples of 51 are 51, 102, 153, ...

The multiples of 17 are 17, 34, 51, 68, 85, 102, ...

The multiples of 34 are 34, 68, 102, ---

So, the first common multiple of 51, 17, 34 is 102 Ans

(g) 7, 14

Sol: The multiples of 7 are 7, 14, 21, 28, 35, 42, ---

The multiples of 14 are 14, 28, 42, 56, ---

So, the common multiple of 7 and 14 is 14 Ans

(h) 6, 15

Sol: The multiples of 6 are 6, 12, 18, 24 30, 36, ---

The multiples of 15 are 15, 30, 45, ---

So, the common multiples of 6, 15 is 30 Ans

(i) 2, 5, 10

Sol: The multiples of 2 are

2, 4, 6, 8, 10, 12, 14, 16, ---

The multiples of 5 are

5, 10, 15, 20, 25, ---

The multiples of 10 are 10, 20, 30, 40, 50, ---

So, the common multiple of 2, 5, 10 is 10 Ans

Review Exercise (TB Pg 48)

Q1. Choose the correct answer.

(a)	13 is a _____ number.		
(i)	Composite	(ii)	Common
(iii)	Multiple	(iv)	Prime ✓
(b)	If _____ of the all digits of a number divisible by 3 then that number is divisible by 3.		
(i)	Sum ✓	(ii)	Difference
(iii)	Product	(iv)	Quotient
(c)	Prime factorization of 24 is:		
(i)	8×3	(ii)	1×24
(iii)	$2 \times 2 \times 2 \times 3$ ✓	(iv)	$2 \times 6 \times 2$
(d)	The common factor of 2 and 4 is _____.		
(i)	1	(ii) 2 ✓	(iii) 4 (iv) 8
(e)	The first common multiple of 5 and 10 is _____.		
(i)	5	(ii) 10 ✓	(iii) 20 (iv) 50

Q2. Use the divisibility rule to complete the given table below.

Numbers	Divisible by 2	Divisible by 3	Divisible by 5	Divisible by 10
(a) 112	✓	×	×	×
(b) 985	✓	×	×	×
(c) 5409	✓	✓	×	×
(d) 5600	✓	×	✓	✓
(e) 81810	✓	✓	✓	✓
(f) 5912	✓	×	×	×
(g) 53800	✓	×	✓	✓
(h) 2134	✓	×	×	×

Q3. Write the first 12 composite numbers.

Sol: The first 12 composite numbers are 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21 Ans

Q4. Write prime numbers between 21 and 60?

Sol: 23, 29, 31, 37, 41, 47, 53 and 59.

Q5. Find the factors of the given numbers.

(a) 10

$$\begin{aligned} \text{Sol } 10 &= 1 \times 10 \\ &= 2 \times 5 \\ &= 5 \times 2 \\ &= 10 \times 1 \end{aligned}$$

Factors of 10 are 1, 2, 5, 10 Ans

(b) 25

$$\begin{aligned} \text{Sol } 25 &= 1 \times 25 \\ &= 5 \times 5 \\ &= 25 \times 1 \end{aligned}$$

Factor of 25 are 1, 5, 25 Ans

(c) 35

$$\begin{aligned} \text{Sol } 35 &= 1 \times 35 \\ &= 5 \times 7 \\ &= 7 \times 5 \\ &= 35 \times 1 \end{aligned}$$

Factors of 35 are 1, 5, 7, 35 Ans

(d) 46

$$\begin{aligned} \text{Sol } 46 &= 1 \times 46 \\ &= 2 \times 23 \\ &= 23 \times 2 \\ &= 46 \times 1 \end{aligned}$$

Factors of 46 are 1, 2, 23, 46 Ans

(e) 23

$$\begin{aligned} \text{Sol } 23 &= 1 \times 23 \\ &= 23 \times 1 \end{aligned}$$

Factors of 23 are 1, 23 Ans

(f) 16

$$\begin{aligned} 16 &= 1 \times 16 \\ &= 2 \times 8 \\ &= 4 \times 4 \end{aligned}$$

$$= 8 \times 2$$

$$= 16 \times 1$$

Factors of 16 are
1, 2, 4, 8, 16 Ans
(h) 47

$$\begin{array}{r|l} 2 & 20 \\ \hline 2 & 10 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

The prime factors of
40 are 2, 2, 2, 5 Ans

$$\begin{array}{r|l} 7 & 7 \\ \hline & 1 \end{array}$$

The prime factors of
21 are 3, 7 Ans

(h) Sol

$$\begin{array}{r|l} 2 & 30 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

The prime factors of
30 are 2, 3, 5 Ans

(j) Sol

$$\begin{array}{r|l} 2 & 38 \\ \hline 19 & 19 \\ \hline & 1 \end{array}$$

The Prime factors of
38 are 2 and 19 Ans

the common factors of the
factors of 11 Ans

$$\begin{array}{l} 1 \times 4 \\ 2 \times 2 \\ 4 \times 1 \end{array} \quad \begin{array}{l} 20 = 1 \times 20 \\ = 2 \times 10 \\ = 4 \times 5 \\ = 5 \times 4 \\ 10 \times 2 \\ 20 \times 1 \end{array}$$

factor of 20 are
1, 2, 4, 5, 10, 20

factors of 4 and 20 are 1, 2, 4 Ans
24

$$\begin{array}{l} 1 \times 16 \\ 2 \times 8 \\ 4 \times 4 \\ 8 \times 2 \\ 16 \times 1 \end{array} \quad \begin{array}{l} 24 = 1 \times 24 \\ = 2 \times 12 \\ = 3 \times 8 \\ = 4 \times 6 \\ = 6 \times 4 \\ = 8 \times 3 \\ = 12 \times 2 \\ = 24 \times 1 \end{array}$$

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

factors of 16, 24 are

$$\begin{array}{l} 1 \times 28 \\ 2 \times 14 \end{array} \quad \begin{array}{l} 56 = 1 \times 56 \\ = 2 \times 28 \end{array}$$

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$$= 10$$

$$\frac{4}{5} = \frac{4 \times 2}{5 \times 2} = \frac{8}{10}$$

$$\frac{9}{10} = \frac{9 \times 1}{10 \times 1} = \frac{9}{10}$$

$$\text{Since, } \frac{8}{10} < \frac{9}{10}$$

$$\Rightarrow \frac{4}{5} < \frac{9}{10}$$

(d) $\frac{1}{7} \square \frac{5}{8}$

Sol: $\frac{1}{7} < \frac{5}{8}$

$$\begin{array}{r|l} 7 & 7, 8 \\ \hline 2 & 1, 8 \\ \hline 2 & 1, 4 \\ \hline 2 & 1, 2 \\ \hline 2 & 1, 2 \\ \hline & 1, 1 \end{array}$$

$$\text{LCM} = 7 \times 2 \times 2 \times 2$$

$$= 14 \times 4 \text{ LCM} = 56$$

$$\frac{1}{7} = \frac{1 \times 8}{7 \times 8} = \frac{8}{56}$$

$$\frac{5}{8} = \frac{5 \times 7}{8 \times 7} = \frac{35}{56}$$

$$\text{Since, } \frac{8}{56} < \frac{35}{56}$$

$$\Rightarrow \frac{1}{7} < \frac{5}{8}$$

(f) $\frac{8}{12} \square \frac{5}{7}$

Sol: $\frac{8}{12} < \frac{5}{7}$

$$\begin{array}{r|l} 2 & 12, 7 \\ \hline 2 & 6, 7 \\ \hline 3 & 3, 7 \\ \hline 7 & 1, 7 \end{array}$$

$$= 12$$

$$\frac{6}{12} = \frac{6 \times 1}{12 \times 1} = \frac{6}{12}$$

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

$$\text{Since, } \frac{6}{12} < \frac{9}{12}$$

$$\Rightarrow \frac{6}{12} < \frac{3}{4}$$

(e) $\frac{2}{9} \square \frac{5}{6}$

Sol: $\frac{2}{9} < \frac{5}{6}$

$$\begin{array}{r|l} 3 & 9, 6 \\ \hline 3 & 3, 2 \\ \hline 2 & 1, 2 \\ \hline & 1, 1 \end{array}$$

$$\text{LCM} = 3 \times 3 \times 2 = 18$$

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

$$\frac{5}{6} = \frac{5 \times 3}{6 \times 3} = \frac{15}{18}$$

$$\text{Since, } \frac{4}{18} < \frac{15}{18}$$

$$\Rightarrow \frac{2}{9} < \frac{5}{6}$$

(g) $\frac{1}{3} \square \frac{1}{4}$

Sol: $\frac{1}{3} > \frac{1}{4}$

$$\begin{array}{r|l} 2 & 3, 4 \\ \hline 2 & 3, 2 \\ \hline 3 & 3, 1 \\ \hline & 1, 1 \end{array}$$

$$\begin{aligned}
 &= 4 \times 7 \\
 &= 7 \times 4 \\
 &= 14 \times 2 \\
 &= 28 \times 1
 \end{aligned}$$

$$\begin{aligned}
 &= 4 \times 14 \\
 &= 7 \times 8 \\
 &= 8 \times 7 \\
 &= 14 \times 4 \\
 &= 28 \times 2 \\
 &= 56 \times 1
 \end{aligned}$$

Factors of 28 are
1, 2, 4, 7, 14, 28

Factors of 56 are
1, 2, 4, 7, 8, 14, 28, 56

Sol $14 = 1 \times 14$
 $= 2 \times 7$
 $= 7 \times 2$
 $= 14 \times 1$

Factor of 14 are 14 are 1, 2, 7, 14

The common factors of 28, 56, 14 are 1, 2, 7, 14

(d) 17, 34

Sol $17 = 1 \times 17$
 $= 17 \times 1$

Factors of 17 are 1, 17

The common factors of
17, 34 are 1, 17 Ans

$34 = 1 \times 34$
 $= 2 \times 17$
 $= 17 \times 2$
 $= 34 \times 1$

Factors of 34 are
1, 2, 17, 34

(e) 12, 6, 18

Sol $12 = 1 \times 12$
 $= 2 \times 6$
 $= 3 \times 4$
 $= 4 \times 3$
 $= 6 \times 2$
 $= 12 \times 1$

Factors of 12 are 1, 2, 3,
4, 6, 12

Sol $18 = 1 \times 18$
 $= 2 \times 9$
 $= 3 \times 6$
 $= 6 \times 3$
 $= 9 \times 2$
 $= 18 \times 1$

Factors of 18 are 1, 2, 3, 6, 9, 18

The common factors of 12, 6, 18 are
1, 2, 3, and 6 Ans

(f) 5, 10, 20

Sol $5 = 1 \times 5$
 $= 5 \times 1$
 Factors of 5 are
1, 5

$10 = 1 \times 10$
 $= 2 \times 5$
 $= 5 \times 2$
 $= 10 \times 1$

Factors of 10 are

1, 2, 5, 10

$20 = 1 \times 20$
 $= 2 \times 10$
 $= 4 \times 5$
 $= 5 \times 4$
 $= 10 \times 2$
 $= 20 \times 1$

Factor of 20 are 1, 2, 4, 5, 10, 20

The common factors of 5, 10, 20 are 1, 5 Ans

Q9. Find the first common multiple of the given numbers.

(a) 2, 7

Sol: The multiples of 2 are:

2, 4, 6, 8, 10, 12, 14, 16, 18, ---

The multiples of 7 are:

7, 14, 21, 28, 35, ---

The first common multiple of
2, 7 is 14 Ans

(b) 6, 10

Sol: The multiples of 6 are

6, 12, 18, 24, 30, 36, 42, ---

The multiples of "10" are 10, 20, 30, 40, 50, ---

The first common multiples of 6 and 10 is 30

(c) 12, 14, 18

Sol: The multiples of 12 are

12, 24, 36, 48, 60, 66, 72, 84, 96, 108, 120,
132, 144, 156, 168, 180, 192, 204, 216, 228,
240, 252, 264, ---

The multiple of 14 are

14, 28, 42, 56, 70, 84, 98, 112, 126, 140, 154, 168, 182,
196, 210, 224, 238, 252, 266

The multiples of 18 are

18, 36, 54, 72, 90, 108, 126, 144, 162, 180,
198, 216, 234, 252, 270, ---

The first common multiple of 12, 14, 18 is 252

(d) 15, 30

Sol: The multiples of 15 are 15, 30, 45, 60,
75, ---

The multiples of 30 are 30, 60, 90, 120, ---

The first common multiple of 15 and 30 is 30

(e) 5, 15, 20

Sol: The multiples of 5 are

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ---

$$\frac{8}{12} = \frac{8 \times 7}{12 \times 7} = \frac{56}{84}$$

$$\frac{5}{7} = \frac{5 \times 12}{7 \times 12} = \frac{60}{84}$$

Since, $\frac{56}{84} < \frac{60}{84}$

$$\Rightarrow \frac{8}{12} < \frac{5}{7}$$

(h) $\frac{4}{11} \square \frac{7}{10}$

Sol: $\frac{4}{11} \square \frac{7}{10}$

2	11	10
5	11	5
11	11	1
	1	1

$$\text{LCM} = 2 \times 5 \times 11$$

$$= 10 \times 11 \text{ LCM} = 110$$

$$\frac{4}{11} = \frac{4 \times 10}{11 \times 10} = \frac{40}{110}$$

$$\frac{7}{10} = \frac{7 \times 11}{10 \times 11} = \frac{77}{110}$$

Since, $\frac{40}{110} < \frac{77}{110}$

$$\Rightarrow \frac{4}{11} < \frac{77}{110}$$

Q3. Write the following fractions into simplest form.

(a) $\frac{4}{20}$

Sol: $= \frac{4 \div 2}{20 \div 2}$

$$= \frac{2}{10}$$

$$= \frac{2 \div 2}{10 \div 2}$$

$$= \frac{1}{5} \text{ Ans}$$

(c) $\frac{30}{45}$

Sol: $= \frac{30 \div 3}{45 \div 3}$

$$\frac{1}{3} = \frac{1 \times 4}{3 \times 4} = \frac{4}{12}$$

$$\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12}$$

Since, $\frac{4}{12} > \frac{3}{12}$

$$\Rightarrow \frac{1}{3} > \frac{1}{4}$$

(b) $\frac{2}{12}$

Sol: $= \frac{2 \div 2}{12 \div 2}$

$$= \frac{1}{6} \text{ Ans}$$

(d) $\frac{9}{27}$

Sol: $= \frac{9 \div 3}{27 \div 3}$

$$= \frac{10}{15}$$

$$= \frac{10 \div 5}{15 \div 5}$$

$$= \frac{2}{3} \text{ Ans}$$

(e) $\frac{12}{16}$

Sol: $= \frac{12 \div 2}{16 \div 2}$

$$= \frac{6}{8}$$

$$= \frac{6 \div 2}{8 \div 2}$$

$$= \frac{3}{4} \text{ Ans}$$

(g) $\frac{16}{24}$ Sol: $= \frac{16 \div 2}{24 \div 2}$

$$= \frac{8}{12}$$

$$= \frac{8 \div 2}{12 \div 2}$$

$$= \frac{4}{6}$$

$$= \frac{4 \div 2}{6 \div 2}$$

$$= \frac{2}{3} \text{ Ans}$$

(i) $\frac{14}{20}$

Sol: $= \frac{14 \div 2}{20 \div 2}$

$$= \frac{7}{10} \text{ Ans}$$

(j) $\frac{17}{34}$

Sol: $= \frac{17 \div 17}{34 \div 17}$

$$= \frac{1}{2} \text{ Ans}$$

Q4. Encircle the proper fraction of the given and tick (✓) the mixed number.

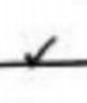
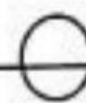
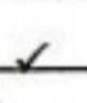
(a) $\frac{2}{5}$

(b) $\frac{7}{8}$

(c) $\frac{3}{4}$

(d) $3\frac{4}{7}$ ✓

(e) $1\frac{1}{2}$ ✓



(f) $\frac{3}{8}$ (g) $\frac{9}{11}$ (h) $3\frac{7}{11}$ (i) $\frac{6}{7}$ (j) $11\frac{1}{2}$

Q5. Convert improper fractions to mixed number.

(a) $\frac{8}{5}$
 Sol:
$$\begin{array}{r} 5 \overline{)8} \\ \underline{-5} \\ 3 \end{array}$$

 $\frac{8}{5} = 1\frac{3}{5} \text{ Ans}$

(c) $\frac{13}{10}$
 Sol:
$$\begin{array}{r} 10 \overline{)13} \\ \underline{-10} \\ 3 \end{array}$$

 $\frac{13}{10} = 1\frac{3}{10} \text{ Ans}$

(e) $\frac{15}{2}$
 Sol:
$$\begin{array}{r} 2 \overline{)15} \\ \underline{-14} \\ 1 \end{array}$$

 $\frac{15}{2} = 7\frac{1}{2} \text{ Ans}$

Q6. Convert mixed number to improper fraction.

(a) $2\frac{3}{5}$
 Sol:
$$\begin{aligned} &= \frac{(2 \times 5) + 3}{5} \\ &= \frac{10 + 3}{5} \\ &= \frac{13}{5} \text{ Ans} \end{aligned}$$

(c) $4\frac{1}{7}$
 Sol:
$$= \frac{(4 \times 7) + 1}{7}$$

(b) $\frac{11}{5}$
 Sol:
$$\begin{array}{r} 5 \overline{)11} \\ \underline{-10} \\ 1 \end{array}$$

 $\frac{11}{5} = 2\frac{1}{5} \text{ Ans}$

(d) $\frac{20}{9}$
 Sol:
$$\begin{array}{r} 9 \overline{)20} \\ \underline{-18} \\ 2 \end{array}$$

 $\frac{20}{9} = 2\frac{2}{9} \text{ Ans}$

(b) $7\frac{5}{6}$
 Sol:
$$\begin{aligned} &= \frac{(7 \times 6) + 5}{6} \\ &= \frac{42 + 5}{6} \\ &= \frac{47}{6} \text{ Ans} \end{aligned}$$

(d) $5\frac{3}{11}$
 Sol:
$$= \frac{(5 \times 11) + 3}{11}$$

$$\begin{aligned} &= \frac{28 + 1}{7} \\ &= \frac{29}{7} \text{ Ans} \end{aligned}$$

(e) $6\frac{1}{3}$
 Sol:
$$\begin{aligned} &= \frac{(6 \times 3) + 1}{3} \\ &= \frac{18 + 1}{3} \\ &= \frac{19}{3} \text{ Ans} \end{aligned}$$

Q7. Write the given fraction in ascending and descending order.

(a) $\frac{3}{5}, \frac{3}{9}, \frac{3}{7}$
 Sol:

5	5	9	7
3	1	9	7
3	1	3	7
7	1	1	7
	1	1	1

LCM = $5 \times 3 \times 3 \times 7 = 15 \times 21$
 LCM = 315

$\frac{3}{5} = \frac{3 \times 63}{5 \times 63} = \frac{189}{315}$

$\frac{3}{9} = \frac{3 \times 35}{9 \times 35} = \frac{105}{315}$

$\frac{3}{7} = \frac{3 \times 45}{7 \times 45} = \frac{135}{315}$

Ascending order in $\frac{3}{9}, \frac{3}{7}, \frac{3}{5} \text{ Ans}$

Descending order is $\frac{3}{5}, \frac{3}{7}, \frac{3}{9} \text{ Ans}$

(b) $\frac{3}{4}, \frac{1}{3}, \frac{6}{7}$
 Sol:

2	4	3	7
2	2	3	7
3	1	3	7
7	1	1	7
	1	1	1

LCM = $2 \times 2 \times 3 \times 7 = 4 \times 21$
 LCM = 84

$$\frac{3}{4} = \frac{3 \times 21}{4 \times 21} = \frac{63}{84}$$

$$\frac{1}{3} = \frac{1 \times 28}{3 \times 28} = \frac{28}{84}$$

$$\frac{6}{7} = \frac{6 \times 12}{7 \times 12} = \frac{72}{84}$$

Ascending order in

$$\frac{1}{3}, \frac{3}{4}, \frac{6}{7} \text{ Ans}$$

Descending order is

$$\frac{6}{7}, \frac{3}{4}, \frac{1}{3} \text{ Ans}$$

$$(c) \quad \frac{3}{5}, \frac{2}{10}, \frac{4}{15}$$

Sol	5	5	10	15
	2	1	2	3
	3	1	1	3
		1	1	1

$$\text{LCM} = 5 \times 2 \times 3 = 30$$

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

$$\frac{2}{10} = \frac{2 \times 3}{10 \times 3} = \frac{6}{30}$$

$$\frac{4}{15} = \frac{4 \times 2}{15 \times 2} = \frac{8}{30}$$

$$\text{Ascending order in} \quad \frac{2}{10}, \frac{4}{15}, \frac{3}{5} \text{ Ans}$$

$$\text{Descending order is} \quad \frac{3}{5}, \frac{4}{15}, \frac{2}{10} \text{ Ans}$$

Q8. Ali have three full and one half pizza. How can write this in mixed number?



Q9. Mahad buys $1\frac{1}{2}$ kg of mangoes.

Write this in improper fraction.

Sol: $1\frac{1}{2} \text{ kg}$

$$= \frac{(1 \times 2) + 1}{2} \text{ kg}$$

$$= \frac{2+1}{2} \text{ kg}$$

$$= \frac{3}{2} \text{ kg Ans}$$

Exercise No. 2 (TB PG 63)

Q1. Solve the following fraction and write the answer in simplest form.

(a) $\frac{6}{7} + \frac{5}{7}$

Sol: $\frac{6+5}{7}$
 $= \frac{11}{7}$
 $= 1\frac{4}{7} \text{ Ans}$

WC

$$\begin{array}{r} 1 \\ 7 \overline{) 11} \\ \underline{-7} \\ 4 \end{array}$$

(b) $\frac{11}{13} + \frac{11}{13}$

Sol: $\frac{11+11}{13}$
 $= \frac{22}{13}$
 $= 1\frac{9}{13} \text{ Ans}$

WC

$$\begin{array}{r} 1 \\ 13 \overline{) 22} \\ \underline{-13} \\ 9 \end{array}$$

(c) $\frac{5}{17} + \frac{11}{17}$

Sol: $\frac{5+11}{17}$
 $= \frac{16}{17} \text{ Ans}$

(d) $\frac{7}{15} + \frac{8}{15}$

Sol: $\frac{7+8}{15}$
 $= \frac{15}{15}$
 $= \frac{\cancel{15}^1}{\cancel{15}} = 1 \text{ Ans}$

(e) $\frac{5}{16} + \frac{5}{16}$

Sol: $= \frac{5+5}{16}$
 $= \frac{10}{16}$
 $= \frac{10 \div 2}{16 \div 2}$
 $= \frac{5}{8} \text{ Ans}$

(f) $\frac{2}{19} + \frac{12}{19}$
 Sol: $= \frac{2+12}{19}$
 $= \frac{14}{19} \text{ Ans}$

Q2. Subtract the smallest fraction from the greatest fraction.

(a) $\frac{2}{3}, \frac{3}{3}$
 Sol: $= \frac{3}{3} - \frac{2}{3}$
 $= \frac{3-2}{3}$
 $= \frac{1}{3} \text{ Ans}$

(c) $\frac{11}{12}, \frac{7}{12}$
 Sol: $= \frac{11}{12} - \frac{7}{12}$
 $= \frac{11-7}{12}$
 $= \frac{4}{12}$
 $= \frac{4 \div 4}{12 \div 4}$
 $= \frac{1}{3}$

(e) $\frac{2}{5}, \frac{4}{5}$
 Sol: $= \frac{4}{5} - \frac{2}{5}$
 $= \frac{4-2}{5}$
 $= \frac{2}{5} \text{ Ans}$

(g) $\frac{2}{13}, \frac{1}{13}$

(b) $\frac{1}{11}, \frac{7}{11}$
 Sol: $= \frac{7}{11} - \frac{1}{11}$
 $= \frac{7-1}{11}$
 $= \frac{6}{11} \text{ Ans}$

(d) $\frac{7}{21}, \frac{15}{21}$
 Sol: $= \frac{15}{21} - \frac{7}{21}$
 $= \frac{15-7}{21} = \frac{8}{21} \text{ Ans}$

(f) $\frac{8}{10}, \frac{4}{10}$
 Sol: $= \frac{8}{10} - \frac{4}{10}$
 $= \frac{8-4}{10}$
 $= \frac{4}{10}$
 $= \frac{4 \div 2}{10 \div 2}$
 $= \frac{2}{5} \text{ Ans}$

(h) $\frac{5}{15}, \frac{3}{15}$

Sol: $= \frac{2}{13} - \frac{1}{13}$
 $= \frac{2-1}{13}$
 $= \frac{1}{13} \text{ Ans}$

Sol: $= \frac{5-3}{15}$
 $= \frac{2}{15} \text{ Ans}$

Q3. A painter labour $\frac{7}{13}$ part of the wall in one day and $\frac{3}{13}$ on the second day.

(a) How much wall he paints in two days?

1st day paints the wall $= \frac{7}{13}$ $\frac{7}{13} + \frac{3}{13}$

2nd day paints the wall $= \frac{3}{13}$ $= \frac{7+3}{13}$
 $= \frac{10}{13}$

The labour paints $\frac{10}{13}$ parts of the wall. Ans

(b) How much more does he paint on the first day?

Sol: $\frac{7}{13} - \frac{3}{13} = \frac{7-3}{13} = \frac{4}{13}$

Q4. $\frac{5}{16}$ of artificial fertilizer and $\frac{7}{16}$ kg of natural fertilizer have been used in a field. How much quantity of both fertilizers is used?

Sol: Used artificial fertilizer in field $= \frac{5}{16} \text{ kg}$

Used natural fertilizer in field $= \frac{7}{16} \text{ kg}$

$= \frac{5}{16} + \frac{7}{16}$

$= \frac{5+7}{16}$

$\frac{12}{16} = \frac{3}{4}$

$\frac{3}{4}$ kg of fertilizers is used. Ans

Q5. Saba did her math homework in $\frac{2}{10}$ hours and her sister did her math homework in $\frac{7}{10}$ hours. How many hours did both take to complete their homework?

Sol:

Saba's

Spent time on Maths H.W = $\frac{2}{10}$ hours

Saba's sister spent time on Math H.W = $\frac{7}{10}$ hours.

$$= \frac{2}{10} + \frac{7}{10}$$

$$= \frac{2+7}{10}$$

$$= \frac{9}{10} \text{ hours}$$

They both to take $\frac{9}{10}$ hours to complete their homework. Ans

Q6. Shiraz and Omar invest money in a business. Shiraz gets $\frac{7}{11}$ share and Omar gets $\frac{10}{11}$ share of the profit. Whose share is more and how much?

Sol: Shiraz's Share = $\frac{7}{11}$ Omar's share = $\frac{10}{11}$

$$= \frac{10}{11} - \frac{7}{11}$$

$$= \frac{10-7}{11} = \frac{3}{11}$$

Omar share is more than Shiraz share and $\frac{3}{11}$ shares

Exercise # 3

Q1. Multiply the following

(a) $\frac{6}{7} \times 4$

(b) $9 \times \frac{5}{6}$

Sol: $\frac{6}{7} \times 4$
 $= \frac{6}{7} \times \frac{4}{1}$
 $= \frac{24}{7} \text{ Ans}$

(c) $\frac{13}{11} \times 11$
 Sol: $\frac{13}{11} \times 11$
 $= \frac{13}{\cancel{11}} \times \frac{\cancel{11}^1}{1}$
 $= 13 \times 1$
 $= 13 \text{ Ans}$

(e) $\frac{1}{10} \times 2$
 Sol: $\frac{1}{10} \times 2$
 $= \frac{1}{\cancel{10}_5} \times \frac{\cancel{2}^1}{1}$
 $= \frac{1}{5} \times \frac{1}{1}$
 $= \frac{1}{5} \text{ Ans}$

(g) $\frac{7}{11} \times 2$
 Sol: $\frac{7}{11} \times 2$
 $= \frac{7}{11} \times \frac{2}{1}$
 $= \frac{14}{11} \text{ Ans}$

Sol: $9 \times \frac{5}{6}$
 $= \frac{\cancel{9}^3}{1} \times \frac{5}{\cancel{6}_2}$
 $= \frac{15}{2} \text{ Ans}$

(d) $\frac{8}{9} \times 6$
 Sol: $= \frac{8}{9} \times 6$
 $= \frac{8}{\cancel{9}_3} \times \frac{\cancel{6}^2}{1}$
 $= \frac{8}{3} \times \frac{2}{1}$
 $= \frac{16}{3} \text{ Ans}$

(f) $\frac{6}{13} \times 1$
 Sol: $= \frac{6}{13} \times 1$
 $= \frac{6}{13} \text{ Ans}$

(h) $3\frac{2}{3} \times 1$
 Sol: $= 3\frac{2}{3} \times 1$
 $= \frac{11}{3} \times 1$
 $= \frac{11}{3} \text{ Ans}$

Q2. Solve the given fractions.

(a) $\frac{6}{2} \times \frac{3}{6}$

(b) $\frac{9}{11} \times \frac{5}{10}$

Sol: $\frac{\cancel{6}}{2} \times \frac{3}{\cancel{6}_1}$
 $= \frac{1}{2} \times \frac{3}{1}$
 $= \frac{3}{2} \text{ Ans}$

(c) $\frac{3}{17} \times 3\frac{3}{4}$
 Sol: $\frac{3}{17} \times \frac{15}{4}$
 $= \frac{45}{68} \text{ Ans}$

(e) $\frac{2}{9} \times 1\frac{5}{6} \times \frac{5}{6}$
 Sol: $\frac{\cancel{2}^1}{9} \times \frac{11}{\cancel{6}_3} \times \frac{5}{6}$
 $= \frac{1}{9} \times \frac{11}{3} \times \frac{5}{6}$
 $= \frac{55}{162} \text{ Ans}$

(g) $\frac{4}{3} \times \frac{1}{4} \times 7\frac{7}{10}$
 Sol: $\frac{\cancel{4}^1}{3} \times \frac{1}{\cancel{4}_1} \times \frac{77}{10}$
 $= \frac{1}{3} \times \frac{1}{1} \times \frac{77}{10}$
 $= \frac{77}{30} \text{ Ans}$

Q3. Solve the following

(a) $\frac{7}{20} \div 2$
 Sol: $= \frac{7}{20} \div \frac{2}{1}$
 $= \frac{7}{20} \times \frac{1}{2}$
 $= \frac{7}{40} \text{ Ans}$

(c) $\frac{20}{35} \div 9$

Sol: $= \frac{9}{11} \times \frac{\cancel{9}^1}{\cancel{9}_2}$
 $= \frac{9}{11} \times \frac{1}{2}$
 $= \frac{9}{22} \text{ Ans}$

(d) $7\frac{1}{7} \times 1\frac{5}{8}$
 Sol: $= \frac{56}{7} \times \frac{13}{\cancel{8}_4}$
 $= \frac{25}{7} \times \frac{13}{4}$
 $= \frac{325}{28} \text{ Ans}$

(f) $\frac{8}{12} \times 3\frac{8}{11} \times \frac{5}{7}$
 Sol: $\frac{\cancel{8}^2}{\cancel{12}_3} \times \frac{41}{11} \times \frac{5}{7}$
 $= \frac{2}{3} \times \frac{41}{11} \times \frac{5}{7}$
 $= \frac{410}{231} \text{ Ans}$

$= \frac{1}{3} \times \frac{1}{1} \times \frac{77}{10}$
 $= \frac{77}{30} \text{ Ans}$

(b) $\frac{2}{15} \div 5$
 Sol: $= \frac{2}{15} \div \frac{5}{1}$
 $= \frac{2}{15} \times \frac{1}{5}$
 $= \frac{2}{75} \text{ Ans}$

(d) $\frac{21}{27} \div 3$

Sol: $= \frac{\cancel{20}^4}{\cancel{35}_7} \div \frac{9}{1}$
 $= \frac{4}{7} \times \frac{1}{9}$
 $= \frac{4}{63} \text{ Ans}$

(e) $\frac{14}{16} \div 7$
 Sol: $= \frac{\cancel{14}^7}{\cancel{16}_8} \div \frac{7}{1}$
 $= \frac{7}{8} \times \frac{1}{7}$
 $= \frac{1}{8} \text{ Ans}$

(g) $\frac{18}{24} \div 3$
 Sol: $= \frac{\cancel{18}^3}{\cancel{24}_4} \div \frac{3}{1}$
 $= \frac{1}{4} \times \frac{1}{3}$

(h) $\frac{14}{18} \div 18$
 Sol: $= \frac{\cancel{14}^7}{\cancel{18}_9} \div \frac{18}{1}$
 $= \frac{7}{162} \text{ Ans}$

Q4. If the weight of 5 packets of sugar $4\frac{7}{8}$ kg then what will be the weight of 1 packet sugar?

Sol: $= \frac{\cancel{21}^7}{\cancel{27}_9} \div \frac{3}{1}$
 $= \frac{7}{9} \times \frac{1}{3}$
 $= \frac{7}{27} \text{ Ans}$

(f) $\frac{15}{20} \div 21$
 Sol: $= \frac{15}{20} \div \frac{21}{1}$
 $= \frac{\cancel{15}^3}{\cancel{20}_4} \times \frac{1}{21}$
 $= \frac{\cancel{3}^1}{\cancel{20}_4} \times \frac{1}{7}$
 $= \frac{1}{4} \times \frac{1}{7}$
 $= \frac{1}{28} \text{ Ans}$

$= \frac{1}{4} \times \frac{1}{1}$
 $= \frac{1}{4} \text{ Ans}$

Sol: To find the weight of 1 packet of sugar; we will divide $4\frac{7}{8}$ kg by 5.

$$\begin{aligned} 4\frac{7}{8} \div 5 \\ &= \frac{39}{8} \div \frac{5}{1} \\ &= \frac{39}{8} \times \frac{1}{5} \\ &= \frac{39}{40} \text{ kg} \end{aligned}$$

$$\begin{aligned} \frac{a}{b} \div \frac{c}{d} \\ &= \frac{a}{b} \times \frac{d}{c} \end{aligned}$$

Weight of 1 packet of sugar is $\frac{39}{40}$ kg. Ans

Q5. Ayesha's is age $\frac{1}{2}$ of her sister's age.

(a) If her sister is 20 years old. How old Ayesha?

Sol: Ayesha's age = $\frac{1}{2}$ of sister's age

$$\begin{aligned} &= \frac{1}{2} \times 20 \text{ yrs} \\ &= 10 \text{ yrs Ans} \end{aligned}$$

"Of" means to multiply

(b) If her sister is 30 years old. How old is Ayesha?

Sol: Ayesha's age = $\frac{1}{2}$ of sister's age

$$\begin{aligned} &= \frac{1}{2} \times 30 \text{ yrs} \\ &= 15 \text{ yrs Ans} \end{aligned}$$

Q6. Kamal will distribute $4\frac{1}{2}$ packets of candies among 6 childrens.

(a) How many packets of candy will each child's will get?

Sol: Total Packets = $4\frac{1}{2}$

Number of children = 6

To find that how many packets will get each child, we will divide $4\frac{1}{2}$ by 6.

$$\begin{aligned} 4\frac{1}{2} \div 6 \\ &= \frac{9}{2} \div \frac{6}{1} \end{aligned}$$

$$\begin{aligned} &= \frac{9}{2} \times \frac{1}{6} \\ &= \frac{3}{2} \times \frac{1}{2} \\ &= \frac{3}{4} \text{ Ans} \end{aligned}$$

(b) If he distributes these packets amount 9 children then how many packets of candy child will share get?

Sol: Total packet = $4\frac{1}{2}$

Number of children = 9

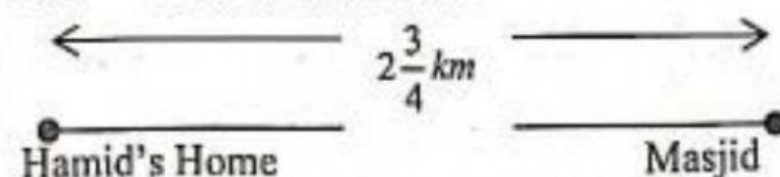
To find that how many packets will get each child, we will divide $4\frac{1}{2}$ by 9.

$$\begin{aligned} 4\frac{1}{2} \div 9 \\ &= \frac{9}{2} \div \frac{9}{1} \end{aligned}$$

$$\begin{aligned} &= \frac{9}{2} \times \frac{1}{9} \\ &= \frac{1}{2} \times \frac{1}{1} \\ &= \frac{1}{2} \text{ Ans} \end{aligned}$$

Q7. The distance between Hamid's home and Masjid is $2\frac{3}{4}$ kilometer, if Hamid goes to Masjid for the five prayer then how much distance he covers daily?

Sol: Consider the figure



$5 \times [\text{Home to Masjid} + \text{Masjid to Home}]$

$$\begin{aligned} &= 5 \times \left[2\frac{3}{4} + 2\frac{3}{4} \right] \\ &= 5 \times \left[\frac{11}{4} + \frac{11}{4} \right] \\ &= 5 \times \left[\frac{11+11}{4} \right] \end{aligned}$$

$$\begin{aligned} &= 5 \times \frac{22}{4} \\ &= \frac{5}{1} \times \frac{11}{2} \\ &= \frac{55}{2} \text{ km} \end{aligned}$$

Hamid covers $\frac{55}{2}$ km distance daily. Ans

Review exercise (T Pg 69)
Review Exercise 1 (TB Pg 10)

Q1. Choose the correct answer.

(a) _____ is an proper.			
(i)	$\frac{5}{4}$	(ii)	$\frac{9}{7}$
(iii)	$\frac{1}{2}$ ✓	(iv)	$\frac{4}{2}$
(b) _____ is an improper fraction.			
(i)	$\frac{5}{4}$ ✓	(ii)	$\frac{1}{2}$
(iii)	$3\frac{5}{9}$	(iv)	$\frac{4}{7}$
(c) $\frac{1}{4} + \frac{3}{4}$ is equal to.			
(i)	$\frac{1}{4}$	(ii)	$\frac{3}{4}$
(iii)	1 ✓	(iv)	$\frac{2}{4}$
(d) $\frac{7}{6} - \frac{2}{6}$ is equal to.			
(i)	$\frac{9}{6}$	(ii)	$\frac{2}{6}$
(iii)	$\frac{1}{6}$	(iv)	$\frac{5}{6}$ ✓
(e) The product of $\frac{7}{6}$ and 5 is _____.			
(i)	$\frac{34}{6}$	(ii)	$\frac{34}{7}$
(iii)	$\frac{35}{7}$	(iv)	$\frac{35}{6}$ ✓

Q2. Tick (✓) the like fractions.

a) $\frac{4}{9}, \frac{1}{9}, \frac{2}{9}$ ✓ b) $\frac{5}{7}, \frac{6}{11}, \frac{2}{13}$ c) $\frac{2}{17}, \frac{9}{23}, \frac{11}{12}$

d) $\frac{6}{14}, \frac{1}{14}, \frac{2}{14}$ e) $\frac{4}{13}, \frac{1}{5}, \frac{6}{7}$ f) $\frac{3}{10}, \frac{9}{10}, \frac{1}{10}$ ✓

Q3. Compare the given fraction and write symbols of <, > or =.

(a) $\frac{9}{10}$ $\frac{5}{7}$ (b) $\frac{6}{13}$ $\frac{1}{12}$

Sol: $\frac{9}{10}$ $\frac{5}{7}$

2	10	,	7
5	5	,	7
7	1	,	7
	1	,	1

LCM = $2 \times 5 \times 7$
= 10×7

LCM = 70

$\frac{9}{10} = \frac{9 \times 7}{10 \times 7} = \frac{63}{70}$

$\frac{5}{7} = \frac{5 \times 10}{7 \times 10} = \frac{50}{70}$

Since, $\frac{63}{70} > \frac{50}{70}$

$\Rightarrow \frac{9}{10} > \frac{5}{7}$

(c) $\frac{3}{5}$ $\frac{6}{11}$

Sol: $\frac{3}{5}$ $\frac{6}{11}$

5	5	,	11
11	1	,	11
	1	,	1

LCM = 5×11
= 55

$\frac{3}{5} = \frac{3 \times 11}{5 \times 11} = \frac{33}{55}$

$\frac{6}{11} = \frac{6 \times 5}{11 \times 5} = \frac{30}{55}$

Since, $\frac{33}{55} > \frac{30}{55}$

$\Rightarrow \frac{3}{5} > \frac{6}{11}$

Sol: $\frac{6}{13}$ $\frac{1}{12}$

2	13	,	12
2	13	,	6
3	13	,	3
13	13	,	1
	1	,	1

LCM = $2 \times 2 \times 3 \times 13$
= $4 \times 39 = 156$

$\frac{6}{13} = \frac{6 \times 12}{13 \times 12} = \frac{72}{156}$

$\frac{1}{12} = \frac{1 \times 13}{12 \times 13} = \frac{13}{156}$

Since, $\frac{72}{156} > \frac{13}{156}$

$\Rightarrow \frac{6}{13} > \frac{1}{12}$

(d) $\frac{8}{9}$ $\frac{1}{2}$

Sol: $\frac{8}{9}$ $\frac{1}{2}$

2	9	,	2
3	9	,	1
3	3	,	1
	1	,	1

LCM = $2 \times 3 \times 3 = 18$

$\frac{8}{9} = \frac{8 \times 2}{9 \times 2} = \frac{16}{18}$

$\frac{1}{2} = \frac{1 \times 9}{2 \times 9} = \frac{9}{18}$

Since, $\frac{16}{18} > \frac{9}{18}$

$\Rightarrow \frac{8}{9} > \frac{1}{2}$

Q4. Write the given fractions into simplest form.

(a) $\frac{52}{18}$

Sol: $= \frac{52 \div 2}{18 \div 2}$

(b) $\frac{17}{51}$

Sol: $= \frac{17 \div 17}{51 \div 17}$

$$= \frac{26}{9} \text{ Ans}$$

$$(c) \frac{9}{19}$$

Sol: it's already in simplest form

(d)

$$= \frac{1}{3} \text{ Ans}$$

$$\frac{22}{33}$$

Sol:

$$= \frac{22 \div 11}{33 \div 11}$$

$$= \frac{2}{3} \text{ Ans}$$

Q5. Encircle the unit fraction and tick (✓) the improper fractions.

$$a) \frac{9}{9} \checkmark$$

$$b) \frac{1}{6}$$

$$c) \frac{7}{2} \checkmark$$

$$d) \frac{11}{5} \checkmark$$

$$e) \frac{1}{9}$$

Q6. Convert the improper fraction two mixed numbers.

$$(a) \frac{7}{5}$$

$$\text{Sol: } \begin{array}{r} 1 \\ 5 \overline{) 7} \\ \underline{-5} \\ 2 \end{array}$$

$$\frac{7}{5} = 1\frac{2}{5} \text{ Ans}$$

$$(c) \frac{17}{4}$$

$$\begin{array}{r} 4 \\ 4 \overline{) 17} \\ \underline{-16} \\ 1 \end{array}$$

$$\frac{17}{4} = 4\frac{1}{4} \text{ Ans}$$

$$(b) \frac{11}{8}$$

$$\text{Sol: } \begin{array}{r} 1 \\ 8 \overline{) 11} \\ \underline{-8} \\ 3 \end{array}$$

$$\frac{11}{8} = 1\frac{3}{8} \text{ Ans}$$

$$(d) \frac{5}{4}$$

$$\begin{array}{r} 1 \\ 4 \overline{) 5} \\ \underline{-4} \\ 1 \end{array}$$

$$\frac{5}{4} = 1\frac{1}{4} \text{ Ans}$$

Q7. Convert the mixed numbers to improper fraction.

$$(a) 1\frac{3}{5}$$

$$\text{Sol: } = \frac{(1 \times 5) + 3}{5}$$

$$(b) 3\frac{5}{10}$$

$$\text{Sol: } = \frac{(3 \times 10) + 5}{10}$$

$$= \frac{5+3}{5}$$

$$= \frac{8}{5} \text{ Ans}$$

(c)

$$6\frac{4}{7}$$

Sol:

$$= \frac{(6 \times 7) + 4}{7}$$

$$= \frac{42+4}{7}$$

$$= \frac{46}{7} \text{ Ans}$$

$$= \frac{30+5}{10}$$

$$= \frac{35}{10} \text{ Ans}$$

(d)

$$2\frac{1}{9}$$

Sol:

$$= \frac{(2 \times 9) + 1}{9}$$

$$= \frac{18+1}{9}$$

$$= \frac{19}{9} \text{ Ans}$$

Q8. Write the given fraction in ascending and descending order.

$$(a) \frac{4}{8}, \frac{5}{2}, \frac{6}{7}, \frac{1}{6}$$

Sol

2	8	2	7	6
2	4	7	7	3
2	2	1	7	3
3	1	1	7	3
7	1	1	7	1
	1	1	1	1

$$\text{LCM} = 2 \times 2 \times 2 \times 3 \times 7 = 8 \times 21 = 168$$

$$\frac{4}{8} = \frac{4 \times 21}{8 \times 21} = \frac{84}{168}$$

$$\frac{5}{2} = \frac{5 \times 84}{2 \times 84} = \frac{420}{168}$$

$$\frac{6}{7} = \frac{6 \times 24}{7 \times 24} = \frac{144}{168}$$

$$\frac{1}{6} = \frac{1 \times 28}{6 \times 28} = \frac{28}{168}$$

$$\text{Ascending order in } \frac{1}{6}, \frac{4}{8}, \frac{6}{7}, \frac{5}{2} \text{ Ans}$$

$$\text{Descending order is } \frac{5}{2}, \frac{6}{7}, \frac{4}{8}, \frac{1}{6} \text{ Ans}$$

$$(b) \frac{2}{9}, \frac{8}{9}, \frac{5}{6}, \frac{1}{3}$$

Sol

3	9	9	6	3
3	3	3	2	1
2	1	1	2	1
	1	1	1	1

$$\text{LCM} = 3 \times 3 \times 2 = 18$$

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

$$\frac{8}{9} = \frac{8 \times 2}{9 \times 2} = \frac{16}{18}$$

$$\frac{5}{6} = \frac{5 \times 3}{6 \times 3} = \frac{15}{18}$$

$$\frac{1}{3} = \frac{1 \times 6}{3 \times 6} = \frac{6}{18}$$

Ascending order is $\frac{2}{9}, \frac{1}{3}, \frac{5}{6}, \frac{8}{9}$ Ans

Descending order is $\frac{8}{9}, \frac{5}{6}, \frac{1}{3}, \frac{2}{9}$ Ans

(c) $\frac{4}{12}, \frac{7}{18}, \frac{3}{10}, \frac{5}{6}$

Sol	2	12	18	10	6
	3	6	9	5	3
	2	2	3	5	1
	3	1	3	5	1
	5	1	1	5	1
		1	1	1	1

$$\text{LCM} = 2 \times 3 \times 2 \times 3 \times 5 = 6 \times 30$$

$$\text{LCM} = 180$$

$$\frac{4}{12} = \frac{4 \times 15}{12 \times 15} = \frac{60}{180}$$

$$\frac{7}{18} = \frac{7 \times 10}{18 \times 10} = \frac{70}{180}$$

$$\frac{3}{10} = \frac{3 \times 18}{10 \times 18} = \frac{54}{180}$$

$$\frac{5}{6} = \frac{5 \times 30}{6 \times 30} = \frac{150}{180}$$

Ascending order is $\frac{3}{10}, \frac{4}{12}, \frac{7}{18}, \frac{5}{6}$ Ans

Descending order is $\frac{5}{6}, \frac{7}{18}, \frac{4}{12}, \frac{3}{10}$ Ans

Q9. Add the given fractions.

(a) $\frac{1}{3}, \frac{2}{3}$

Sol: $\frac{1}{3} + \frac{2}{3}$

(b) $\frac{11}{12}, \frac{7}{12}$

Sol: $\frac{11}{12} + \frac{7}{12}$

$$= \frac{1+2}{3}$$

$$= \frac{3}{3} = 1 \text{ Ans}$$

(c) $\frac{9}{5}, \frac{4}{5}$

Sol: $\frac{9}{5} + \frac{4}{5}$

$$= \frac{9+4}{5}$$

$$= \frac{13}{5} \text{ Ans}$$

$$= \frac{11+7}{12}$$

$$= \frac{18}{12} = \frac{3}{2} \text{ Ans}$$

(d) $\frac{3}{9}, \frac{7}{9}$

Sol: $\frac{3}{9} + \frac{7}{9}$

$$= \frac{3+7}{9}$$

$$= \frac{10}{9} \text{ Ans}$$

Q10. Subtract the given fractions

(a) $\frac{9}{10} - \frac{3}{10}$

Sol: $\frac{9-3}{10}$

$$= \frac{6}{10}$$

$$= \frac{3}{5} \text{ Ans}$$

(b) $\frac{8}{13} - \frac{2}{13}$

Sol: $\frac{8-2}{13}$

$$= \frac{6}{13} \text{ Ans}$$

(c) $\frac{6}{17} - \frac{1}{17}$

Sol: $\frac{6-1}{17}$

$$= \frac{5}{17} \text{ Ans}$$

(d) $\frac{4}{7} - \frac{3}{7}$

Sol: $\frac{4-3}{7}$

$$= \frac{1}{7} \text{ Ans}$$

Q11. Multiply the given fractions.

(a) $\frac{9}{5} \times 7$

Sol: $\frac{9}{5} \times \frac{7}{1}$

$$= \frac{63}{5} \text{ Ans}$$

(b) $4 \frac{2}{11} \times \frac{9}{10}$

Sol: $\frac{46}{11} \times \frac{9}{10}$

$$= \frac{23}{11} \times \frac{9}{5} = \frac{207}{55} \text{ Ans}$$

(c) $\frac{1}{2} \times 7\frac{8}{9}$
 Sol: $= \frac{1}{2} \times \frac{71}{9}$
 $= \frac{1 \times 71}{2 \times 9}$
 $= \frac{71}{18} \text{ Ans}$

(d) $3\frac{2}{11} \times 1\frac{5}{14}$
 Sol: $= \frac{35}{11} \times \frac{19}{14}$
 $= \frac{5}{11} \times \frac{19}{2}$
 $= \frac{95}{22} \text{ Ans}$

$\frac{7}{12} + \frac{9}{12}$
 $= \frac{7+9}{12}$
 $= \frac{16}{12}$
 $= \frac{4}{3} \text{ Ans}$

(e) $1\frac{1}{4} \times 7\frac{3}{9}$
 Sol: $= \frac{5}{4} \times \frac{66}{9}$
 $= \frac{5}{4} \times \frac{22}{3}$
 $= \frac{5}{2} \times \frac{11}{3}$
 $= \frac{55}{6} \text{ Ans}$

(f) $\frac{1}{6} \div 9$
 Sol: $= \frac{1}{6} \div \frac{9}{1}$
 $= \frac{1}{6} \times \frac{1}{9}$
 $= \frac{1}{54} \text{ Ans}$

(g) $4\frac{7}{12} \div 1$
 Sol: $= \frac{55}{12} \text{ Ans}$

Q12. In a garden $\frac{7}{2}$ of the trees are mango trees. In another garden $\frac{9}{12}$ of the trees are mango trees. How many mango trees are there altogether?
 Sol: In this case we will use the process of addition.

Q13. Hania has $12\frac{8}{14}$ m ribbon. She wants to cut it into 8 equal pieces. What will be the length of each piece?

Sol: Total length
 $= 12\frac{8}{14}$ m
 No. of pieces = 8
 Length of each piece = ?
 To find the length of each piece, we will divided $12\frac{8}{14}$ by 8.

$12\frac{8}{14} \div 8$
 $= \frac{176}{14} \div \frac{8}{1}$
 $= \frac{176}{14} \times \frac{1}{8}$
 $= \frac{22}{14}$
 $= \frac{11}{7} \text{ m}$

Q14. Jamal Read $\frac{2}{7}$ of 140 pages of a book and Ferhan reads 2 times more pages than Jamal. How many pages does Ferhan read?

Sol: No. of pages Ferhan read = ?

Jamal reads = $\frac{2}{7}$ of 140 pages.

$= \frac{2}{7} \times 140 \text{ pages}$
 $= 2 \times 20 \text{ pages} = 40 \text{ pages}$
 Jamal reads = 40 pages
 Since Ferhan reads 2 times more pages than Jamal, so $2 \times 40 = 80$ pages

Number of pages Ferhan read is 80 Ans

Unit No. 4

(Decimals)

Exercise No 1 (TB PG 76)

Q1. Write the given fractions in decimals.

(a) $\frac{16}{100}$

Sol: = 0.16 Ans

(c) $\frac{324}{1000}$

Sol: = 0.324 Ans

(e) $\frac{70}{1000}$

Sol: = $\frac{70}{1000}$
 $= \frac{7}{100} = 0.07$ Ans

(b) $\frac{1}{10}$

Sol: = 0.1 Ans

(d) $\frac{2}{100}$

Sol: = 0.02 Ans

Q2. Write the place value of the coloured digits.

(a) 1.56 Sol: Place value = 0.5 Ans

(b) 45.987 Sol: Place value = 0.08 Ans

(c) 321.17 Sol: Place value = 300 Ans

(d) 6.897 Sol: Place value = 0.09 Ans

(e) 6.340 Sol: Place value = 0.000 Ans

(f) 12.123 Sol: Place value = 2 Ans

(g) 78.808 Sol: Place value = 0.008 Ans

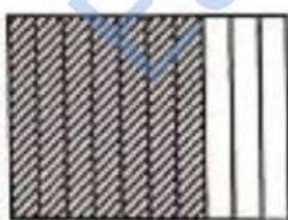
(h) 4.009 Sol: Place value = 0.0 Ans

Q3. Colour the given shapes with the help of decimals.

(a) 0.2

(b) 0.7

(c) 0.9



Q4 Fill in the blanks

(a) 7.45

(i) 7 is at ones place, the place value of 7 is; $7 \times 1 = 7$

(ii) 4 is at tenths place, place value of 4 is

(b) 87.391

(i) 8 is at tens place, place value of 8 is; $8 \times 10 = 80$

(ii) 7 is at ones place, the place value of 7 is;

$4 \times 0.1 = 0.4$

(iii) 5 is at hundredths place, place value of 5 is;

$5 \times 0.01 = 0.05$

(c) 99.999

(i) 9 is at tens place, place value of 9 is;

$9 \times 10 = 90$

(ii) 9 is at ones place, place value of 9 is;

$9 \times 1 = 9$

(iii) 9 is at tenths place, place value of 9 is

$9 \times 0.1 = 0.9$

(iv) 9 is at hundredths place, place value of 9 is;

$9 \times 0.01 = 0.09$

(v) 9 is at thousandths place, place value of 9 is;

$9 \times 0.001 = 0.009$

$7 \times 1 = 7$

(iii) 3 is at tenths place, place value of 3 is;

$3 \times 0.1 = 3$

(iv) 9 is at hundredths place then the place value of 9 is

$9 \times 0.01 = 0.09$

(v) 1 is in the thousandths place, place value of 1 is;

$1 \times 0.001 = 0.001$

Exercise No 2 (TB pg 81)

Q1. Represent these in decimal fraction.

(a) $\frac{24}{100}$

Sol: = 0.24 Ans

(b) $\frac{5}{1000}$

Sol: = 0.005 Ans

(c) $\frac{6}{10}$

Sol: = 0.6 Ans

(d) $\frac{12}{500}$

(e) $\frac{3}{250}$

Sol: = $\frac{12 \times 2}{500 \times 2}$

Sol: = $\frac{3 \times 4}{250 \times 4}$

$= \frac{24}{1000}$

$= \frac{12}{1000}$

= 0.024 Ans

= 0.012 Ans

(f) $\frac{47}{25}$

(g) $\frac{60}{200}$

$$\begin{aligned} \text{Sol: } &= \frac{47 \times 4}{25 \times 4} \\ &= \frac{188}{100} \\ &= 1.88 \text{ Ans} \end{aligned}$$

$$(h) \quad \frac{606}{1000}$$

$$(i) \quad \frac{80}{1000}$$

$$\begin{aligned} \text{Sol: } &= \frac{80}{1000} \\ &= \frac{8}{100} \\ &= 0.08 \text{ Ans} \end{aligned}$$

Q2. Convert the following decimal fractions to common fractions.

$$(a) \quad 1.3$$

$$\text{Sol: } = 1\frac{3}{10} \text{ Ans}$$

$$(c) \quad 6.98$$

$$\begin{aligned} \text{Sol: } &= 6\frac{98}{100} \\ &= 6\frac{49}{50} \text{ Ans} \end{aligned}$$

$$(e) \quad 0.68$$

$$\begin{aligned} \text{Sol: } &= \frac{68}{100} \\ &= \frac{17}{25} \text{ Ans} \end{aligned}$$

$$\text{Sol: } = \frac{60}{200}$$

$$= \frac{3}{10}$$

$$= \frac{3}{10}$$

$$= 0.3 \text{ Ans}$$

$$\text{Sol: } 0.606 \text{ Ans}$$

$$(j) \quad \frac{1}{50}$$

$$\begin{aligned} \text{Sol: } &= \frac{1 \times 2}{50 \times 2} \\ &= \frac{2}{100} \end{aligned}$$

$$= 0.02 \text{ Ans}$$

$$(b) \quad 2.04$$

$$\text{Sol: } = 2\frac{4}{100}$$

$$= 2\frac{1}{25} \text{ Ans}$$

$$(d) \quad 5.5$$

$$\begin{aligned} \text{Sol: } &= 5\frac{5}{10} \\ &= 5\frac{1}{2} \text{ Ans} \end{aligned}$$

$$(f) \quad 21.72$$

$$\begin{aligned} \text{Sol: } &= 21\frac{72}{100} \\ &= 21\frac{18}{25} \text{ Ans} \end{aligned}$$

$$(g) \quad 7.87$$

$$\text{Sol: } = 7\frac{87}{100} \text{ Ans}$$

$$(i) \quad 6.10$$

$$\begin{aligned} \text{Sol: } &= 6\frac{10}{100} \\ &= 6\frac{1}{10} \text{ Ans} \\ &= 6\frac{49}{50} \text{ Ans} \end{aligned}$$

$$(h) \quad 0.98$$

$$\text{Sol: } = \frac{98}{100}$$

$$= \frac{49}{50} \text{ Ans}$$

$$(j) \quad 11.11$$

$$\text{Sol: } = 11\frac{11}{100} \text{ Ans}$$

Exercise 3 (TB Pg 83)

Q1. Add the following.

$$(a) \quad 9.11, 8.03$$

Sol:	ones	.	Tenths	Hundredths
9.11	9	.	1	1
+ 8.03	8	.	0	3
	17	.	1	4

$$9.11 + 8.03 = 17.14 \text{ Ans}$$

$$(b) \quad 43.1, 12.7$$

Sol:	Tens	Ones	.	Tenths
43.1	4	3	.	1
+ 12.7	1	2	.	7
	5	5	.	8

$$43.1 + 12.7 = 55.8 \text{ Ans}$$

$$(c) \quad 52.9, 2.2$$

Sol:	Tens	Ones	.	Tenths
52.9	5	2	.	9
+ 2.2		2	.	2
	5	5	.	1

$$52.9 + 2.2 = 55.1 \text{ Ans}$$

$$(d) \quad 5.69, 2.98$$

Sol:	Tens	.	Ones	Tenths
5.69		.	5	69
+ 2.98		.	2	98
		.	8	67

$$5.69 + 2.98 = 8.67 \text{ Ans}$$

$$(e) \quad 6.02, 1.89$$

Sol:	Tens	.	Ones	Tenths
6.02		.	6	02
+ 1.89		.	1	89
		.	7	91

$$\begin{array}{r}
 6 0 2 \\
 + 21.6 \\
 \hline
 27.6
 \end{array}$$

$$6.023 + 21.6 = 27.623 \text{ Ans}$$

(f) 49.3, 21.6

Sol: Tens Ones . Tenths

$$\begin{array}{r}
 49.3 \\
 + 21.6 \\
 \hline
 70.9
 \end{array}$$

$$49.3 + 21.6 = 70.9 \text{ Ans}$$

Q2. Solve the following

(a) $4.91 - 3.92$

Sol: Ones . Tenths Hundredths

$$\begin{array}{r}
 4.91 \\
 - 3.92 \\
 \hline
 0.99
 \end{array}$$

$$4.91 - 3.92 = 0.99 \text{ Ans}$$

(b) $7.34 - 2.86$

Sol: Ones . Tenths Hundredths

$$\begin{array}{r}
 7.34 \\
 - 2.86 \\
 \hline
 4.48
 \end{array}$$

$$7.34 - 2.86 = 4.48 \text{ Ans}$$

(c) $5.06 - 2.76$

Sol: Ones . Tenths Hundredths

$$\begin{array}{r}
 5.06 \\
 - 2.76 \\
 \hline
 2.30
 \end{array}$$

$$5.06 - 2.76 = 2.30 \text{ Ans}$$

(d) $7.88 - 6.19$

Sol: Ones . Tenths Hundredths

$$\begin{array}{r}
 7.88 \\
 - 6.19 \\
 \hline
 1.69
 \end{array}$$

$$7.88 - 6.19 = 1.69 \text{ Ans}$$

(e) $9.80 - 1.09$

Sol: Ones . Tenths Hundredths

$$\begin{array}{r}
 9.80 \\
 - 1.09 \\
 \hline
 8.71
 \end{array}$$

$$\begin{array}{r}
 9.80 \\
 - 1.09 \\
 \hline
 8.71
 \end{array}$$

$$9.80 - 1.09 = 8.71 \text{ Ans}$$

(f) $78.9 - 7.84$

Sol: Tens Ones . Tenths Hundredths

$$\begin{array}{r}
 78.9 \\
 - 7.84 \\
 \hline
 71.06
 \end{array}$$

$$78.9 - 7.84 = 71.06 \text{ Ans}$$

Q3. Zubair bought a chocolate for Rs 45.7 and a candy for Rs 10.2. How much did he spend altogether?

Sol: In this case, we will use the process of addition

Price of a chocolate = Rs 45.7

Price of a candy = Rs 10.2

Total spend amount = Rs 55.9

Q4. The mass of apples is 38.9 kg and mass of guava is 42.6 kg.

(a) Find the difference between mass of apples and guavas.

Sol: To find the difference between mass of apples and guavas, we will subtract them.

Mass of Guava = 42.60

Mass of Apple = 38.90

Difference = 3.70 kg

(b) Find the total mass

Sol: To find the total mass, we will use the process of addition.

Mass of Apple = 38.9

Mass of Guava = 42.6

Total Mass = 81.5 kg

Exercise 4 (TB pg 87)

Q1. Solve the following.

(a) 5.9×10

Sol: $= \frac{59}{10} \times 10 = 59 \times 1 = 59 \text{ Ans}$

(b) 4.8×100

Sol: $= \frac{48}{10} \times 100 = 48 \times 10 = 480 \text{ Ans}$

(c) 0.3×1000

Sol: $= \frac{3}{10} \times 1000 = 3 \times 100 = \boxed{300}$ Ans

(d) 8.2×10

Sol: $= \frac{82}{10} \times 10 = 82 \times 1 = \boxed{82}$ Ans

(e) 4.3×1000

Sol: $= \frac{43}{10} \times 1000 = 43 \times 100 = \boxed{4300}$ Ans

(f) 9.1×100

Sol: $= \frac{91}{10} \times 100 = 91 \times 10 = \boxed{910}$ Ans

Q2. Solve the following.

(a) 5.6×8

$$\begin{array}{r} \text{Sol} \quad 5.6 \\ \times \quad 8 \\ \hline 44.8 \end{array}$$

$5.6 \times 8 = \boxed{44.8}$ Ans

(b) 7.1×2

$$\begin{array}{r} \text{Sol} \quad 7.1 \\ \times \quad 2 \\ \hline 14.2 \end{array}$$

$7.1 \times 2 = \boxed{14.2}$ Ans

(c) 4.9×4

$$\begin{array}{r} \text{Sol} \quad 4.9 \\ \times \quad 4 \\ \hline 19.6 \end{array}$$

$4.9 \times 4 = \boxed{19.6}$ Ans

(d) 3.4×3

$$\begin{array}{r} \text{Sol} \quad 3.4 \\ \times \quad 3 \\ \hline 10.2 \end{array}$$

$3.4 \times 3 = \boxed{10.2}$ Ans

(e) 1.3×7

$$\begin{array}{r} \text{Sol} \quad 1.3 \\ \times \quad 7 \\ \hline 9.1 \end{array}$$

$1.3 \times 7 = \boxed{9.1}$ Ans

(f) 9.8×9

$$\begin{array}{r} \text{Sol} \quad 9.8 \\ \times \quad 9 \\ \hline 88.2 \end{array}$$

$9.8 \times 9 = \boxed{88.2}$ Ans

Q3. Solve the following.

(a) $1.4 \div 2$

$$\begin{array}{r} \text{Sol} \quad 0.7 \\ 2 \overline{) 1.4} \\ \underline{0} \\ 14 \\ \underline{14} \\ 0 \end{array}$$

(b) $1.8 \div 9$

$$\begin{array}{r} \text{Sol} \quad 0.2 \\ 9 \overline{) 1.8} \\ \underline{0} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

$1.4 \div 2 = \boxed{0.7}$ Ans

$1.8 \div 9 = \boxed{0.2}$ Ans

(c) $6.4 \div 4$

$$\begin{array}{r} \text{Sol} \quad 1.6 \\ 4 \overline{) 6.4} \\ \underline{4} \\ 24 \\ \underline{24} \\ 0 \end{array}$$

$6.4 \div 4 = \boxed{1.6}$ Ans

(d) $8.4 \div 6$

$$\begin{array}{r} \text{Sol} \quad 1.4 \\ 6 \overline{) 8.4} \\ \underline{6} \\ 24 \\ \underline{24} \\ 0 \end{array}$$

$8.4 \div 6 = \boxed{1.4}$ Ans

(e) $2.7 \div 3$

$$\begin{array}{r} \text{Sol} \quad 0.9 \\ 3 \overline{) 2.7} \\ \underline{0} \\ 27 \\ \underline{27} \\ 0 \end{array}$$

$2.7 \div 3 = \boxed{0.9}$ Ans

(f) $2.6 \div 2$

$$\begin{array}{r} \text{Sol} \quad 1.3 \\ 2 \overline{) 2.6} \\ \underline{2} \\ 06 \\ \underline{06} \\ 0 \end{array}$$

$2.6 \div 2 = \boxed{1.3}$ Ans

Q4. Saba uses 9.8ml oil to bake a cake. How much oil will she use to bake 10 such cakes?

Sol: used oil to bake a cake = 9.8ml
Used oil to bake 10 cakes = ?

In this case, we will multiply 9.8ml by 10.

$9.8\text{ml} \times 10$

$= \frac{98}{10} \text{ml} \times 10$

$= 98\text{ml} \times 1$

$= \boxed{98\text{ml}}$ Ans

Q5. A tailor uses 2.5 m cloth to make a shirt. How much cloth will he use to make 8 such shirts?

Sol: used cloth for a shirt = 2.5m
Used cloth for 8 shirts = ?

In this case, we will multiply 2.5 by 8

$$\begin{array}{r} 2.5 \\ \times \quad 8 \\ \hline 20.0\text{m} \end{array}$$

20m cloth will be used to make 8 shirts

Q6. Length of one piece of rope is 7.2m, Iram cut this rope into 4 equal pieces.

(a) What will be the length of each piece?

Sol: Length of rope = 7.2m

To find the length of each piece; we will divide 7.2m by 4

$$\begin{array}{r} 1.8 \\ 4 \overline{) 7.2} \\ \underline{-4} \\ 3.2 \\ \underline{-3} \\ 0 \end{array}$$

Length of each piece = 1.8m Ans

(b) If she will cut the rope in 2 equal pieces. What will be the length of each piece?

Sol: To find the length of each piece, we will divide 7.2m by 2

$$\begin{array}{r} 3.6 \\ 2 \overline{) 7.2} \\ \underline{-6} \\ 1.2 \\ \underline{-1} \\ 0 \end{array}$$

Length of each piece = 3.6m Ans

Q7. Ahmad solves 5 questions of math in 8.5 minutes. How long he take to solve 1 question?

Sol: 5 questions take = 8.5 minutes
1 question take = $(8.5 \div 5)$ minutes
= 1.7 minutes

$$\begin{array}{r} 1.7 \\ 5 \overline{) 8.5} \\ \underline{-5} \\ 3.5 \\ \underline{-3} \\ 0 \end{array}$$

1.7 min takes to solve 1 question.

Exercise 5 (TB Pg 90)

Q1. Round off the following whole numbers to the nearest 10, 100 and 1000.

S No	Round off whole numbers to the nearest.		
	10	100	1000

(a)	9871	9870	9900	10,000
(b)	5467	5470	5500	5000
(c)	1212	1210	1200	1000
(d)	6343	6340	6300	6000
(e)	5555	5560	5600	6000
(f)	3498	3500	3500	3000
(g)	1289	1290	1300	1000
(h)	4545	4550	4500	5000
(i)	1111	1110	1100	1000

Q2. Round off the following fraction to the nearest whole number.

S No	Round off to nearest whole numbers	
(a)	5.61	6
(b)	54.2	54
(c)	987.4	987
(d)	12.7	13
(e)	8.98	9
(f)	6.5	7
(g)	76.49	76
(h)	8.19	8
(i)	87.87	88

Review exercise (TB Pg 92)

Q1. Choose the correct answer.

(a)	Decimal is a fraction with the denominator is 1 power of ____, 100 or 1000.			
(i)	10✓	(ii) 2	(iii) 15	(iv) 0
(b)	When we divide a shape into 10 equal parts then each part is called ____.			
(i)	Hundredths	(ii)	Tenths ✓	
(iii)	One	(iv)	Half	
(c)	To add the decimals always ____ ones in ones, tenths in tenths and hundreds in hundreds.			
(i)	Add✓	(ii)	Subtract	
(iii)	Multiply	(iv)	divide	
(d)	When we multiply any decimals by 100 we move the decimal ____ place to the right.			
(i)	1	(ii) 2✓	(iii) 3	(iv) 0
(e)	____ means that to find such a number that is nearest to that number but not exactly.			

(i)	Decimal	(ii)	Fraction
(iii)	Round off	(iv)	Estimation ✓

Q2. Represent the following in decimals.

(a) $\frac{17}{100}$

Sol: = $\boxed{0.17}$ Ans

(c) $\frac{4}{20}$

Sol: = $\frac{4 \times 5}{20 \times 5}$
 $= \frac{20}{100}$
 $= \boxed{0.20}$ Ans

(e) $\frac{200}{250}$

Sol: = $\frac{200}{250}$
 $= \frac{20}{25}$
 $= \frac{20 \times 4}{25 \times 4} = \frac{80}{100} = \boxed{0.80}$ Ans

Q3. Convert the following decimals to common fractions.

(a) 6.7 Sol: = $6\frac{7}{10}$ Ans

(b) 45.56

Sol: = $45\frac{56}{100}$

= $45\frac{14}{25}$

= $45\frac{14}{25}$ Ans

(c) 1.02

Sol: = $1\frac{2}{100}$

= $1\frac{1}{50}$ Ans

(d) 7.87

Sol: = $7\frac{87}{100}$ Ans

(e) 15.8

Sol: = $15\frac{8}{10}$
 $= 15\frac{4}{5}$ Ans

Q4. Add the following.

(a) 6.03, 5.56

Sol:

Ones	Tenths	Hundredths
6	0	3
+	5	6
11	5	9

6.03 + 5.56 = $\boxed{11.59}$ Ans

(b) 8.28, 1.24

Sol:

Ones	Tenths	Hundredths
8	2	8
+	1	2
9	5	2

8.28 + 1.24 = $\boxed{9.52}$ Ans

(c) 12.8, 3.14

Sol:

Tens	Ones	Tenths	Hundredths
1	2	8	0
+	3	1	4
1	5	9	4

12.8 + 3.14 = $\boxed{15.94}$ Ans

Q5. Solve the following.

(a) 7.59 - 2.48

Sol:

Ones	Tenths	Hundredths
7	5	9
-	2	4
5	1	1

7.59 - 2.48 = $\boxed{5.11}$

(b) 6.19, 4.21

Sol:

Ones	Tenths	Hundredths
6	1	9
-	4	2
1	9	8

6.19 - 4.21 = $\boxed{1.98}$ Ans

(c) 5.06 - 1.09

Sol:

Ones	Tenths	Hundredths
5	0	6
-	1	9

$$\begin{array}{r} 3 \quad \quad \quad 9 \quad \quad \quad 7 \\ 5.06 - 1.09 = \boxed{3.97} \text{ Ans} \end{array}$$

Q6. Solve the following.

(a) 1.3×10

Sol: $= \frac{13}{10} \times 10$

$= 13 \times 1 = \boxed{13} \text{ Ans}$

(c) 4.5×1000

Sol: $= \frac{45}{10} \times 1000$

$= 45 \times 100 = \boxed{4500} \text{ Ans}$

(e) 9.3×3

Sol: $\begin{array}{r} 9 \quad . \quad 3 \\ \times \quad 3 \\ \hline 27 \quad . \quad 9 \end{array}$

$9.3 \times 3 = \boxed{27.9} \text{ Ans}$

Q7. Solve the following.

(a) $6.8 \div 4$

Sol: $\begin{array}{r} 1 \quad . \quad 7 \\ 4 \overline{) 6 \quad . \quad 8} \\ \underline{- 4} \quad \quad \quad \\ 2 \quad \quad \quad 8 \\ \underline{- 2} \quad \quad \quad 8 \\ \quad \quad \quad \quad 0 \end{array}$

$6.8 \div 4 = \boxed{1.7} \text{ Ans}$

(c) $8.1 \div 9$

Sol: $\begin{array}{r} 0 \quad . \quad 9 \\ 9 \overline{) 8 \quad . \quad 1} \\ \underline{- 0} \quad \quad \quad \\ 8 \quad \quad \quad 1 \\ \underline{- 8} \quad \quad \quad 1 \\ \quad \quad \quad \quad 0 \end{array}$

$8.1 \div 9 = \boxed{0.9} \text{ Ans}$

(b) 8.9×100

Sol: $= \frac{89}{10} \times 100$

$= 89 \times 10 = \boxed{890} \text{ Ans}$

(d) 8.2×7

Sol: $\begin{array}{r} 8 \quad . \quad 2 \\ \times \quad 7 \\ \hline 57 \quad . \quad 4 \end{array}$

$8.2 \times 7 = \boxed{57.4} \text{ Ans}$

(f) 7.1×6

Sol: $\begin{array}{r} 7 \quad . \quad 1 \\ \times \quad 6 \\ \hline 42 \quad . \quad 6 \end{array}$

$7.1 \times 6 = \boxed{42.6} \text{ Ans}$

(b) $8.8 \div 2$

Sol: $\begin{array}{r} 4 \quad . \quad 4 \\ 2 \overline{) 8 \quad . \quad 8} \\ \underline{- 8} \quad \quad \quad \\ 0 \quad \quad \quad 8 \\ \underline{- 0} \quad \quad \quad 8 \\ \quad \quad \quad \quad 0 \end{array}$

$8.8 \div 2 = \boxed{4.4} \text{ Ans}$

(d) $3.5 \div 7$

Sol: $\begin{array}{r} 0 \quad . \quad 5 \\ 7 \overline{) 3 \quad . \quad 5} \\ \underline{- 0} \quad \quad \quad \\ 3 \quad \quad \quad 5 \\ \underline{- 3} \quad \quad \quad 5 \\ \quad \quad \quad \quad 0 \end{array}$

$3.5 \div 7 = \boxed{0.5} \text{ Ans}$

(e) $4.8 \div 6$

Sol: $\begin{array}{r} 0 \quad . \quad 8 \\ 6 \overline{) 4 \quad . \quad 8} \\ \underline{- 0} \quad \quad \quad \\ 4 \quad \quad \quad 8 \\ \underline{- 4} \quad \quad \quad 8 \\ \quad \quad \quad \quad 0 \end{array}$

$4.8 \div 6 = \boxed{0.8} \text{ Ans}$

(f) $5.1 \div 3$

Sol: $\begin{array}{r} 1 \quad . \quad 7 \\ 3 \overline{) 5 \quad . \quad 1} \\ \underline{- 3} \quad \quad \quad \\ 2 \quad \quad \quad 1 \\ \underline{- 2} \quad \quad \quad 1 \\ \quad \quad \quad \quad 0 \end{array}$

$5.1 \div 3 = \boxed{1.7} \text{ Ans}$

Q8. Round off the whole numbers to the nearest 10, 100 and 1000.

S No	Round off whole numbers to the nearest.			
		10	100	1000
(a)	3429	3430	3400	3000
(b)	1009	1010	1000	1000
(c)	7824	7820	7800	8000
(d)	8417	8420	8400	8000
(e)	4090	4090	4100	4000
(f)	1717	1720	1700	2000

Q9. Round off the decimals to the nearest whole number.

S No	Round off whole numbers to the nearest.	
(a)	4.17	4
(b)	78.3	78
(c)	13.45	13
(d)	0.98	1
(e)	41.41	41
(f)	9.82	10

Q10. The length of a wire is 3.41m and length of another wire is 7.56m.

(a) What will be the total length?

Sol: to find the total length of wire, we will add them.

Length of 1st wire = 3.41m

Length of 2nd wire = 7.56m

Total length = 10.97m Ans

(b) What is the difference between the lengths?

Sol: To find the difference between length, we will subtract them.

Length of 2nd wire = 7.56m

Length of 1st wire = 3.41m

Q11. The capacity of a pack of juice is 3.4 litre. What is the capacity of such 7 packs?
Sol: In this case, we will use the process of multiplication.

Capacity of each pack of a juice = 3.4 l
Capacity of 7 pack of juice = ?

$$\begin{array}{r} 3.4 \\ \times 7 \\ \hline 23.8 \end{array}$$

Capacity of 7 pack of juice is 23.8l Ans

(b) If the capacity of pack of juice is 2.8 litre then what will be the capacity of 5 packs?

Sol: Capacity of each pack of a juice = 2.8l
Capacity of 5 pack of juice = ?

$$\begin{array}{r} 2.8 \\ \times 5 \\ \hline 14.0 \end{array}$$

Capacity of 5 pack of juice is 14l Ans.

Q12. The mass of 4 boxes of pencil is 1.8kg. What will be the mass of 1 box?

Sol: Mass of 4 boxes of pencil = 1.8kg

Mass of 1 box of pencil = ?

To find the mass of 1 box of pencil, we will divide 1.8 kg by 4

$$\begin{array}{r} 0.45 \\ 4 \overline{) 1.80} \\ \underline{4} \\ 0 \\ \underline{1} \\ 1 \\ \underline{1} \\ 0 \\ \underline{0} \\ 0 \end{array}$$

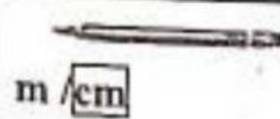
Mass of 1 box of pencil is 0.45 kg Ans

Unit No. 5 (MEASUREMENT)

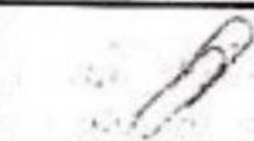
Exercise No 1 (TB PG 98)

Q1. Circle the correct units of length.

(a)	(b)
-----	-----



m / cm



mm / cm

(c)



m / cm

d)



m / km

Q2. Convert these units of lengths.

(a) 12 km into m

Sol: $1 \text{ km} = 1000 \text{ m}$

$12 \text{ km} = 12 \times 1000 \text{ m} = 12000 \text{ m}$ Ans

(b) 56 km 930 m into m

Sol: $1 \text{ km} = 1000 \text{ m}$

$56 \text{ km } 930 \text{ m} = 56 \text{ km} + 930 \text{ m}$

$= 56 \times 1000 \text{ m} + 930 \text{ m}$

$= 56000 \text{ m} + 930 \text{ m}$

$56 \text{ km } 930 = 56930 \text{ m}$ Ans

(c) 88m into cm

Sol: $1 \text{ m} = 100 \text{ cm}$

$88 \text{ m} = 88 \times 100 \text{ cm} = 8800 \text{ cm}$ Ans

(d) 60m 78cm into cm

Sol: $1 \text{ m} = 100 \text{ cm}$

$60 \text{ m } 78 \text{ cm} = 60 \text{ m} + 78 \text{ cm}$

$= 60 \times 100 \text{ cm} + 78 \text{ cm}$

$= 6000 \text{ cm} + 78 \text{ cm}$

$60 \text{ m } 78 \text{ cm} = 6078 \text{ cm}$ Ans

(e) 3.2cm into mm

Sol: $1 \text{ cm} = 10 \text{ mm}$

$3.2 \text{ cm} = 3.2 \times 10 \text{ mm}$

$= \frac{32}{10} \times 10 \text{ mm} = 32 \times 1 \text{ mm}$

$3.2 \text{ cm} = 32 \text{ mm}$

(f) 55cm 2mm into mm

Sol: $1 \text{ cm} = 10 \text{ mm}$

$55 \text{ cm } 2 \text{ mm} = 55 \text{ cm} + 2 \text{ mm}$

$= 55 \times 10 \text{ mm} + 2 \text{ mm}$

$= 550 \text{ mm} + 2 \text{ mm}$

$55 \text{ cm } 2 \text{ mm} = 552 \text{ mm}$ Ans

Exercise No 2 (TB PG 100)

Q1. Solve the given units of length.

(c) $47\text{m} - 10\text{m}$
 Sol: $= 37\text{m}$ Ans

WC	$\begin{array}{r} 47 \\ -10 \\ \hline 37 \end{array}$
----	---

Sol	cm	mm
	35	5
	-25	1
	10	4

(c) Sol

m	cm
21	16
-20	4
	02

Sol	km	m
	74	122
		13
	74	109

Sol	km	cm
	21	16
+	20	14
	41	30

Sol	km	M
	74	122
	+	13
	74	135

(a) $99\text{km} - 74\text{ km}$
 Sol: $= 25\text{km}$ Ans

WC	99
	-14
	25

Sol	km	m
41		
5-2		48
- 6		22
	46	26

Sol	km	m
		6 10

School to home	2	7 + 12
Home to Masjid	- 1	2 16
Difference	1	496

= 1 km 496m Ans

(b) Convert the difference into meters.

Sol: $1 \text{ km} = 1000\text{m}$

Difference = 1 km 496m

= 1 km + 496 m

= 1000m + 496 m

Difference = 1496m Ans

Q6. The length of Ahmad's room is 12m 56cm. His sister's room is 10m 144 long.

(a) What will be the total length of both rooms in cm?

Sol: length of Ahmad's room = 12m 56cm

length of Ahmad's sisters room = 10m 44cm +

Total length = 23m 00cm

The total length of both rooms is 23m or 2300cm Ans

(b) What is the difference between the length of both rooms?

length of Ahmad's sisters room = 12 56

length of Ahmad's sister room = 10 44 -

Difference = 02 12

The difference between the length = 2m 12cm

Exercise 3 (TB Pg 105)

Q1. Convert the following units of mass.

(a) $65 \text{ kg} = 65 \times 1000 \text{ g}$ Sol: $1 \text{ kg} = 1000\text{g}$ $65 \text{ kg} = 65000 \text{ g}$ Ans(b) $23\text{kg } 139 \text{ g}$ to gSol: $1 \text{ kg} = 1000\text{g}$ $23 \text{ kg } 139 \text{ g} = 23\text{kg} + 139 \text{ g}$ $= 23 \times 1000\text{g} + 139 \text{ g}$ $= 23000 \text{ g} + 139 \text{ g}$ $= 23139 \text{ g}$ Ans $23\text{kg } 139 \text{ g}$ (c) 89g to mgSol: $1 \text{ g} = 1000\text{mg}$ $89\text{g} = 89 \times 1000 = 89000 \text{ mg}$ Ans(d) $43\text{g } 699\text{mg}$ to mgSol: $1 \text{ g} = 1000\text{mg}$ $43\text{g } 699\text{mg} = 43\text{g} + 699 \text{ mg}$ $= 43 \times 1000\text{mg} + 699\text{mg}$ $= 43000 \text{ mg} + 699 \text{ mg}$ $43 \text{ g } 699 \text{ mg} = 43699 \text{ mg}$ Ans(e) 1.9g to mgSol: $1 \text{ g} = 1000\text{g}$ $1.9 \text{ g} = 1.9 \times 1000 \text{ mg}$ $= \frac{19}{10} \times 1000\text{mg} = 19 \times 100\text{mg}$ $1.9\text{g} = 1900\text{mg}$ Ans(f) 0.8 kg to gSol: $1 \text{ kg} = 1000\text{g}$ $0.8 \text{ kg} = 0.8 \times 1000\text{g}$ $= \frac{8}{10} \times 1000\text{g} = 8 \times 100 \text{ g}$ $0.8 \text{ kg} = 800 \text{ g}$ Ans

Q2. Solve the following.

(a) $36\text{kg} + 76 \text{ kg}$

Sol: = 112 km Ans

	36
WC	+76
	112

(b) $18\text{kg} + 17\text{kg } 17\text{g}$

Sol	kg	g
	18	00
	+ 17	17
	35	17

= 35kg 17g Ans

(c) $8.2 \text{ g} + 2.2 \text{ g}$

Sol: = 10.4 g Ans

	8.2
WC	+2.2
	10.4

(d) $71\text{g } 2\text{mg} + 11\text{g } 560\text{mg}$

Sol	g	Mg
	71	002
	+ 11	560
	82	562

= 82g 562 mg Ans

(e) $21\text{g } 16\text{mg} + 60\text{g } 14\text{mg}$

Sol	g	Mg
	21	16
	+ 60	14
	81	30

= 81g 30 mg Ans

(f) $94 \text{ kg } 122\text{g} + 23\text{g}$

Sol	kg	g
-----	----	---

94	122
+	23
94	145

= 94kg 145 g Ans

Q3. Solve the following

(a) 99kg - 24 kg

Sol: = 75kg Ans

$$\begin{array}{r} 99 \\ -24 \\ \hline 75 \end{array}$$

(b) 58 kg 458g - 29kg 303g

Sol

kg	g
58	458
- 29	303
29	155

= 29kg 155 g Ans

(c) 904g - 154 g

Sol: = 750 g Ans

$$\begin{array}{r} 904 \\ -154 \\ \hline 750 \end{array}$$

(d) 39 g 500mg - 25g 100mg

Sol

g	mg
39	500
- 25	100
14	400

= 14g 400 mg Ans

Q4. Usman has two fish in a jar. The mass of one fish is 29 g 20 mg and mass of the other is 20g 14mg. what is the difference between the mass of the two fish in mg?

Sol: Find the different between the mass of the two fish and mg; we will subtract them.

g	mg
29	20
- 20	14
9	6

Mass Difference = 9g 6mg

$$9\text{g } 6\text{mg} = 9\text{g} + 6\text{mg}$$

$$= 9000 \text{ mg} + 6\text{mg}$$

$$9\text{g } 6\text{mg} = 9006 \text{ mg Ans}$$

Q5. A shopkeeper sells 49 kg 208 g of sugar and 65 kg 750g of flour. What is the total quantity of sugar and flour in grams?

Sol	kg	g
Sugar	49	208
Flour	65	750 +

$$\text{Total Quantity} = 114$$

$$958$$

The total quantity of sugar and flour is 114 kg 958g or 114958 g Ans.

Q6. Jamal weighs 67 kg 278 g and his father weights 89 kg 924g.

(a) What is the difference in their masses?

Sol: To find the different in their masses we will subtract them.

kg	g
89	924
- 67	278
22	646

$$\text{Mass difference} = 22 \text{ kg } 646 \text{ g}$$

Mass difference = 22kg 646 g Ans

(b) Convert the difference in their masses in grams.

Sol: $1 \text{ kg} = 1000\text{g}$

$$22 \text{ kg } 646\text{g} = 22\text{kg} + 646\text{g}$$

$$= 22 \times 1000\text{g} + 646\text{g}$$

$$= 22000 \text{ g} + 646\text{g}$$

$$22\text{kg } 646\text{g} = 22646 \text{ g Ans}$$

Exercise 4 (TB Pg 108)

Q1. Convert the following units of capacities.

(a) 9 l into ml.

Sol: $1\text{l} = 1000\text{ml}$

$$9\text{l} = 9 \times 1000 \text{ ml}$$

$$9\text{l} = 9000 \text{ ml Ans}$$

(c) 56 l 506 ml.

Sol: $1\text{l} = 1000\text{ml}$

$$56\text{l} = 56 \times 1000\text{ml} + 506\text{ml}$$

$$= 56000 \text{ ml} + 506\text{ml}$$

$$= 56000 \text{ ml} + 506\text{ml}$$

$$56 \text{ l } 506\text{ml} = 56506\text{ml}$$

(e) 67 l into ml.

Sol: $1\text{l} = 1000\text{ml}$

$$67\text{l} = 67 \times 1000 \text{ ml}$$

$$= 67000 \text{ ml Ans}$$

(b) 74 l into ml.

Sol: $1\text{l} = 1000\text{ml}$

$$74\text{l} = 74 \times 1000 \text{ ml}$$

$$74\text{l} = 74000 \text{ ml Ans}$$

(d) 90 l into ml.

Sol: $1\text{l} = 1000\text{ml}$

$$90\text{l} = 90 \times 1000 \text{ ml}$$

$$90\text{l} = 90000 \text{ ml Ans}$$

(f) 1.6 l into ml.

Sol: $1\text{l} = 1000\text{ml}$

$$1.6 \text{ l} = 1.6 \times 1000\text{ml}$$

$$= \frac{16}{10} \times 1000\text{ml}$$

$$= 16 \times 100 \text{ ml}$$

$$1600 \text{ ml Ans}$$

Q2. The capacity of an oil tanker is 98l. convert the capacity of tanker in milliliters.

Sol: Capacity of an oil tank = 98l

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

Capacity of an oil tank = $98 \times 1000\text{ ml} = 98000\text{ ml}$ Ans

Q3. Faria uses 1.7 liters of milk to make milkshake. Convert the quantity of milkshake into milliliters.

Sol: Quantity of milkshake = 1.7 l

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

Quantity of milkshake = $1.7 \times 1000\text{ ml}$

$$= \frac{17}{10} \times 1000\text{ ml}$$

$$= 17 \times 100\text{ ml}$$

Quantity of milk shake = 1700 ml

Exercise No. 5 (Tb Pg 110)

Q1. Solve the following.

(a) $3\text{ l } 109\text{ ml} + 5\text{ l } 304\text{ ml}$

Sol	l	ml
	3	109
	+	5
	8	413

= 8 l 413 ml Ans

(b) $6.5\text{ l} + 4.2\text{ l}$

Sol = 10.7 l Ans

Ones .	Tenths
6 .	5
+ 4 .	2
10 .	7

(c) $122\text{ ml} + 76\text{ ml}$

Sol = 198 ml Ans

122 ml
+ 76 ml
198 ml

(d) $34\text{ l } 200\text{ ml} + 92\text{ l}$

Sol	l	ml
	34	200
	+	92
	126	200

= 126 l 200 ml Ans

(e) $41\text{ l } 200\text{ ml} + 404\text{ l } 478\text{ ml}$

Sol	l	ml
	404	478
	+	41
	445	678

= 445 l 678 ml Ans

Q2. Solve the following.

(a) $22\text{ l } 500\text{ ml} - 10\text{ l } 109\text{ ml}$

Sol	l	ml
	22	500
	-	10
	12	391

= 12 l 391 ml Ans

(b) $55\text{ l} - 32\text{ l}$

Sol: = 23 l Ans

55 l
- 32 l
23 l

(c) $2.2\text{ ml} - 1.5\text{ ml}$

Sol = 0.7 ml Ans

2.2
- 1.5
0.7

(d) $4\text{ l } 878\text{ ml} - 3\text{ l } 760\text{ ml}$

Sol	l	ml
	4	878
	-	3
	1	118

= 1 l 118 ml Ans

(e) $78\text{ l } 209\text{ ml} - 16\text{ l } 142\text{ ml}$

Sol	l	ml
	78	209
	-	16
	62	067

= 62 l 67 ml Ans

Q3. Zara has two containers. The capacity of one container is 67 l 198 ml and the capacity of the other is 84 l 300 ml.

(a) What is the total capacity of the containers?

Sol: To find the total capacity of the container we will use the process of addition.

	l	ml
Capacity of 1 st containers =	67	198
Capacity of 2 nd container =	84	300+

Total capacity of the container = 151 l 498 ml

(b) What is the difference in the capacity of both containers?

Sol: To find the difference in the capacity of both containers we will use the process of subtraction.

$$\begin{array}{r} \text{Capacity of 2nd container} = 84 \text{ l } 80 \text{ ml} \\ \text{Capacity of 1st container} = 67 \text{ l } 98 \text{ ml} \\ \hline \text{Difference in capacity} = 17 \text{ l } 102 \text{ ml} \end{array}$$

The difference in the capacity of both containers is 17 l 102 ml Ans

Q4. A shopkeeper sells 72.8 l milk on Saturday and 92.6 l milk on Sunday. On what day does he sell less milk? Give your answer in milliliters.

$$\text{Sold milk on Sunday} = 92.6 \text{ l}$$

$$\text{Sold milk on Saturday} = 72.8 \text{ l}$$

$$\text{Difference} = 19.8 \text{ l}$$

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

$$\text{Difference} = 19.8 \times 1000 \text{ ml}$$

$$= \frac{198}{10} \times 1000 \text{ ml}$$

$$= 198 \times 100 \text{ ml}$$

$$\text{Difference} = 19800 \text{ ml Ans}$$

Review Exercise (TB Pg 111)

Q1. Choose the correct answer.

(a)	There are _____ meter in one kilometer.		
(i)	1	(ii) 10	(iii) 100 (iv) 1000 ✓
(b)	There are _____ grams in one kilogram.		
(i)	1	(ii) 10	(iii) 100 (iv) 1000 ✓
(c)	To convert cm to mm multiply it with		
(i)	10000	(ii)	100
(iii)	10 ✓	(iv)	1000
(d)	One metre is equal to _____ centimeters		
(i)	1000	(ii) 10	(iii) 1 (iv) 100 ✓
(e)	One litre is equal to 1000.		
(i)	Grams	(ii)	Metres
(iii)	Milliliters ✓	(iv)	Litres

Q2. Convert the given units.

(a) 105 km into m.

$$\text{Sol: } 1 \text{ km} = 1000 \text{ m}$$

$$105 \text{ km} = 105 \times 1000 \text{ m}$$

$$105 \text{ km} = 105000 \text{ m Ans}$$

(b) 3.4 m into cm.

$$\text{Sol: } 1 \text{ m} = 100 \text{ cm}$$

$$3.4 \text{ m} = 3.4 \times 100 \text{ cm}$$

$$= \frac{34}{10} \times 100 \text{ cm}$$

$$= 34 \times 10 \text{ cm}$$

$$3.4 \text{ m} = 340 \text{ cm Ans}$$

(c) 66 kg into g.

$$\text{Sol: } 1 \text{ kg} = 1000 \text{ g}$$

$$66 \text{ kg} = 66 \times 1000 \text{ g}$$

$$= 66000 \text{ g Ans}$$

(d) 60g 498 mg into mg

$$\text{Sol: } 1 \text{ g} = 1000 \text{ mg}$$

$$= 60 \times 1000 \text{ mg} + 498 \text{ mg}$$

$$= 60000 \text{ mg} + 498 \text{ mg}$$

$$60 \text{ g } 498 \text{ mg} = 60498 \text{ mg Ans}$$

Note: The book answer is wrong

(e) 0.5 g into mg

$$\text{Sol: } 1 \text{ g} = 1000 \text{ mg}$$

$$0.5 \text{ g} = 0.5 \times 1000 \text{ mg}$$

$$= \frac{5}{10} \times 1000 \text{ mg}$$

$$= 5 \times 100 \text{ mg}$$

$$0.5 \text{ g} = 500 \text{ mg Ans}$$

(f) 76l 2ml into ml

$$\text{Sol: } 1 \text{ l} = 1000 \text{ ml}$$

$$76 \text{ l } 2 \text{ ml} = 76 \text{ l} + 2 \text{ ml}$$

$$= 76 \times 1000 \text{ ml} + 2 \text{ ml}$$

$$= 76000 \text{ ml} + 2 \text{ ml}$$

$$76 \text{ l } 2 \text{ ml} = 76002 \text{ ml Ans}$$

(g) 9.8l into ml

$$\text{Sol: } 1 \text{ l} = 1000 \text{ ml}$$

$$9.8 \text{ l} = 9.8 \times 1000 \text{ ml}$$

$$= \frac{98}{10} \times 1000 \text{ ml}$$

$$= 98 \times 100 \text{ ml}$$

$$9.8 \text{ l} = 9800 \text{ ml Ans}$$

(h) 90 cm into mm

$$\text{Sol: } 1 \text{ cm} = 10 \text{ mm}$$

$$90 \text{ cm} = 90 \times 10 \text{ mm}$$

$$90 \text{ cm} = 900 \text{ mm Ans}$$

Q3. Add the given units

(a) 5kg 299g + 9kg

$$\begin{array}{r} \text{kg} \qquad \qquad \text{g} \\ 5 \qquad \qquad \qquad 299 \\ + \qquad \qquad \qquad 9 \\ \hline \end{array}$$

= 14 kg 299g Ans

(b) $4.5\text{m} + 2.8\text{m}$

Sol:

$$\begin{array}{r} 1 \\ 4 \quad . \quad 5\text{m} \\ + 2 \quad . \quad 8\text{m} \\ \hline 7 \quad . \quad 3\text{m} \end{array}$$

= 7.3m Ans

(c) $78\text{kg } 700\text{g} + 81\text{kg } 172\text{g}$

Sol	kg	G
	78	700
+	81	172
	159	872

= 159 kg 872g Ans

(d) $212\text{ l } 200\text{ml} + 92\text{ l } 500\text{ ml}$

Sol	l	ml
	212	200
+	92	500
	304	700

= 304 l 700 ml

(e) $119\text{ l } 329\text{ ml} + 365\text{ l } 262\text{ ml}$

Sol	l	ml
	119	329
+	365	262
	484	591

= 484 l 591 ml Ans

(f) $65\text{g } 313\text{mg} + 98\text{g } 198\text{ mg}$

Sol	g	mg
	65	313
+	98	198
	163	511

= 163g 511mg Ans

Q4. Subtract the given units

(a) $506\text{ kg} - 417\text{ kg}$

$$\begin{array}{r} 4 \quad 9 \quad 16 \\ 5 \quad 0 \quad 6 \\ - 4 \quad 1 \quad 7 \\ \hline 8 \quad 9 \end{array}$$

= 89 kg Ans

(b) $85\text{m } 405\text{cm} - 13\text{m } 2\text{km}$

Sol

85

34¹05

13

21

72

384

= 72m 384 cm Ans

(c) $84\text{kg } 711\text{g} - 75\text{kg } 75\text{ kg } 680\text{g}$

Sol	kg	g
	84	711
-	75	680
	09	031

= 9 kg 31 g Ans

(d) $78\text{ l } 805\text{ ml} - 63\text{ l } 214\text{ml}$

Sol	l	ml
	78	805
-	63	214
	15	591

= 15 l 591 ml Ans

(e) $98\text{ l } 788\text{ ml} - 45\text{ l } 45\text{ l } 659\text{ml}$

Sol	l	ml
	98	788
-	45	659
	53	129

= 53 l 129 ml Ans

Q5. The height of K-2 is 8 km 611m and Mount Everest is 8km 848m.

(a) What is the difference between the height of the mountains?

Give your answers in meters?

To find the different between the height of the mountain we will use the process subtraction.

Height of Mount Everest = 8 848

Height of K-2 = 8 611 -

Difference = 0 237

Difference = 237m Ans

(b) What is the total height of the mountains?

To find the total height of the mountain we will use the process of addition.

Height of Mount Everest = 8 848

Height of K-2 = 8 611 +

Total Height = 17 459

Total height = 17 km 459m Ans

Q6. On Eid, Asim buys a goat and a camel, to sacrifice. The goat weight 55 kg and the camel weight 200kg.

(a) Find the total mass of the animals.

Sol: To find the total mass of the animal, we will use the process of addition.

Mass of camel = 200 kg
Mass of goat = 55 kg +

Total Mass = 255 kg

(b) Convert the total mass into grams.

Sol: To convert kg into g we will multiply it by 1000.

Total mass = 255 kg

1 kg = 1000g

Total mass = 255×1000 g

Total mass = 255000 g Ans

Q7. Capacity of a bucket is 87l and capacity of a tub is 112l 456 ml. what is the total capacity in milliliters.

Sol: To find the capacity we will use the process of addition.

Capacity of a tub = 112 456

Capacity of a bucket = 87 000 +

Total capacity = 199 456

Total capacity = 199 l 456 ml

= 199 l + 456 ml

1 l = 1000 ml

Total capacity = 199×1000 ml + 456 ml

= 199000 ml + 456 ml

= 199456 ml Ans

Topic: (Time)

Exercise No 1 (TB PG 117)

1. Colour the correct time of your daily activities using the 12-hours clock time.

Day activities

Time in 12 hour



Getting up for the school

6:00 a.m.

6:00 p.m.



Going to the school

7:45 a.m.

7:45 p.m.



Lunch time in the school

12:30 a.m.

12:30 p.m.



Playing time in the evening

4:30 a.m.

4:30 p.m.



Isha prayer

8:00 a.m.

8:00 p.m.



Sleeping time at night

10:25 a.m.

10:25 p.m.

2. With the help of clocks write the correct time in 24-hour format.

a)

Look at the clock and tell what time Numan has breakfast?

7:30 : 15



b)

Look at the clock and tell what time Fatheen play with her friends?

5:30:35



c)

Look at the clock and tell what time Junaid sleep?

9:00:58



3. Look at the following clocks and tell the time in hours, minutes and seconds

a)



5:00:15

b)



5:00:35

c)



7:40:00

d)



3:10:00

4. Draw hands of hours, minutes and seconds according to the given time.



2:15:30



6:25:03



10:22:55



8:20:01



12:42:16



9:11:31

Exercise 2 TB pg (121)

Q1. Convert the following time in minutes.

(a) 6h

Sol: $1h = 60min$

$$= 6 \times 60 \text{ min}$$

$$= 360 \text{ min Ans}$$

$$\begin{array}{r} 60 \\ \times 6 \\ \hline 360 \end{array}$$

(b) 201h

Sol: $1h = 60min$

$$201h = 201 \times 60 \text{ min}$$

$$= 12060 \text{ min Ans}$$

$$\begin{array}{r} 201 \\ \times 60 \\ \hline 000 \\ +12060 \\ \hline 12060 \end{array}$$

(c) 14h 12min

Sol: $1h = 60min$

$$14h 12 \text{ min} = 14h + 12 \text{ min}$$

$$= 14 \times 60 \text{ min} + 12 \text{ min}$$

$$= 840 \text{ min} + 12 \text{ min}$$

$$14h 12 \text{ min} = 852 \text{ min Ans}$$

$$\begin{array}{r} 14 \\ \times 60 \\ \hline 00 \\ +840 \\ \hline 840 \end{array}$$

(d) 5h 55min

Sol: $5h 55 \text{ min} = 5h + 55 \text{ min}$

$$= 5 \times 60 \text{ min} + 55 \text{ min}$$

$$= 300 \text{ min} + 55 \text{ min}$$

$$5h 55 \text{ min} = 355 \text{ min Ans}$$

$$\begin{array}{r} 5 \\ \times 60 \\ \hline 00 \\ +300 \\ \hline 300 \end{array}$$

(e) 17h 28 min

Sol: $17h 28 \text{ min} = 17h + 28 \text{ min}$

$$= 17 \times 60 \text{ min} + 28 \text{ min}$$

$$= 1020 \text{ min} + 28 \text{ min}$$

$$= 1048 \text{ min}$$

$$17h 28 \text{ min} = 1048 \text{ min Ans}$$

$$\begin{array}{r} 17 \\ \times 60 \\ \hline 00 \\ +1020 \\ \hline 1020 \end{array}$$

(f) 22h 26 min

$$\text{Sol: } 22h = 26 \text{ min} = 22h + 26 \text{ min}$$

$$= 22 \times 60 \text{ min} + 26 \text{ min}$$

$$= 1320 \text{ min} + 26 \text{ min}$$

$$22h 26 \text{ min} = 1346 \text{ min Ans}$$

$$\begin{array}{r} 22 \\ \times 60 \\ \hline 00 \\ +1320 \\ \hline 1320 \end{array}$$

(g) 11h 48 min

$$\text{Sol: } 11h 48 \text{ min} = 11h + 48 \text{ min}$$

$$= 11 \times 60 \text{ min} + 48 \text{ min}$$

$$= 660 \text{ min} + 48 \text{ min}$$

$$11h 48 \text{ min} = 708 \text{ min Ans}$$

$$\begin{array}{r} 11 \\ \times 60 \\ \hline 00 \\ +660 \\ \hline 660 \end{array}$$

(h) 22h 15 min

$$\text{Sol: } 22h 15 \text{ min} = 22h + 15 \text{ min}$$

$$= 22 \times 60 \text{ min} + 15 \text{ min}$$

$$= 1320 \text{ min} + 15 \text{ min}$$

$$22h 15 \text{ min} = 1335 \text{ min Ans}$$

$$\begin{array}{r} 22 \\ \times 60 \\ \hline 00 \\ +1320 \\ \hline 1320 \end{array}$$

(i) 9h 43 min

$$\text{Sol: } 9h 43 \text{ min} = 9h + 43 \text{ min}$$

$$= 9 \times 60 \text{ min} + 43 \text{ min}$$

$$= 540 \text{ min} + 43 \text{ min}$$

$$9h 43 \text{ min} = 583 \text{ min Ans}$$

$$\begin{array}{r} 9 \\ \times 60 \\ \hline 00 \\ +540 \\ \hline 540 \end{array}$$

(j) 18h 6 min

$$\text{Sol: } 18h + 6 \text{ min}$$

$$= 18 \times 60 \text{ min} + 6 \text{ min}$$

$$= 1080 \text{ min} + 6 \text{ min}$$

$$18h 6 \text{ min} = 1086 \text{ min Ans}$$

$$\begin{array}{r} 18 \\ \times 60 \\ \hline 00 \\ +1080 \\ \hline 1080 \end{array}$$

(k) 27h 38 min

$$\text{Sol: } 27h 38 \text{ min} = 27h + 38 \text{ min}$$

$$= 27 \times 60 \text{ min} + 38 \text{ min}$$

$$= 1620 \text{ min} + 38 \text{ min}$$

$$27h 38 \text{ min} = 1658 \text{ min Ans}$$

$$\begin{array}{r} 27 \\ \times 60 \\ \hline 00 \\ +1600 \\ \hline 1600 \end{array}$$

(l) 42h 26 min

$$\text{Sol: } 42h 26 \text{ min} = 42h + 26 \text{ min}$$

$$= 42 \times 60 \text{ min} + 26 \text{ min}$$

$$= 2520 \text{ min} + 26 \text{ min}$$

$$42h 26 \text{ min} = 2546 \text{ min Ans}$$

$$\begin{array}{r} 42 \\ \times 60 \\ \hline 00 \\ +2520 \\ \hline 2520 \end{array}$$

Q2. Convert the following times in second.

(a) 77 min

Sol: $1 \text{ min} = 60 \text{ Sec}$

$$77 \text{ min} = 77 \times 60 \text{ sec}$$

$$77 \text{ min} = 4620 \text{ sec Ans}$$

(b) 43 min

Sol $1 \text{ min} = 60 \text{ Sec}$

$$43 \text{ min} = 43 \times 60 \text{ sec} \\ = 2580 \text{ sec Ans}$$

(c) 1 min 13 sec

Sol $1 \text{ min} = 60 \text{ Sec}$

$$= 60 \text{ sec} + 13 \text{ sec} \\ = 73 \text{ sec Ans}$$

(d) 8 min 32 sec

Sol $= 8 \text{ min} + 32 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 8 \times 60 \text{ sec} + 32 \text{ sec} \\ = 480 \text{ sec} + 32 \text{ sec} \\ = 512 \text{ sec Ans}$$

(e) 6 min 53 sec

Sol $6 \text{ min} + 53 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 6 \times 60 \text{ sec} + 53 \text{ sec} \\ = 360 \text{ sec} + 53 \text{ sec} \\ = 413 \text{ sec Ans}$$

(f) 63 min 58 sec

Sol $63 \text{ min} + 58 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 63 \times 60 \text{ sec} + 58 \text{ sec} \\ = 3780 + 58 \text{ sec} \\ = 3838 \text{ sec Ans}$$

(g) 88 min 59 sec

Sol $88 \text{ min} + 59 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 88 \times 60 \text{ sec} + 59 \text{ sec} \\ = 5280 \text{ sec} + 59 \text{ sec} \\ = 5339 \text{ sec Ans}$$

(h) 65 min 37 sec

Sol $65 \text{ min} + 37 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 65 \times 60 \text{ sec} + 37 \text{ sec} \\ = 3900 \text{ sec} + 37 \text{ sec} \\ = 3937 \text{ sec Ans}$$

(i) 214 min 24 sec

Sol $214 \text{ min} + 24 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 214 \times 60 \text{ sec} + 24 \text{ sec} \\ = 12840 \text{ sec} + 24 \text{ sec} \\ = 12864 \text{ sec Ans}$$

(j) 100 min 11 sec

Sol $100 \text{ min} + 11 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 100 \times 60 \text{ sec} + 11 \text{ sec} \\ = 6000 \text{ sec} + 11 \text{ sec} \\ = 6011 \text{ sec Ans}$$

(k) 176 min 18 sec

Sol $176 \text{ min} + 18 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 176 \times 60 \text{ sec} + 18 \text{ sec} \\ = 10560 \text{ sec} + 18 \text{ sec} \\ = 10578 \text{ sec Ans}$$

(l) 432 min 03 sec

Sol $432 \text{ min} + 03 \text{ sec}$

$$1 \text{ min } 60 \text{ sec} \\ = 432 \times 60 \text{ sec} + 03 \text{ sec} \\ = 25920 \text{ sec} + 03 \text{ sec} \\ = 25923 \text{ sec Ans}$$

Exercise 3 (TB PG 123)

Q1. Convert the following into month.

(a) 9 years

$$\text{Sol: } 1 \text{ years} = 12 \text{ months} \\ 9 \text{ years} = 9 \times 12 \text{ months} \\ = 108 \text{ months}$$

(b) 4 years

$$\text{Sol: } 1 \text{ years} = 12 \text{ months} \\ 4 \text{ years} = 4 \times 12 \text{ months} \\ = 48 \text{ months}$$

(c) 12 years

$$\text{Sol: } 1 \text{ years} = 12 \text{ months} \\ = 12 \times 12 \text{ month} \\ = 144 \text{ month}$$

(d) 21 years

$$\text{Sol: } 1 \text{ years} = 12 \text{ months} \\ 21 \text{ years} = 21 \times 12 \text{ months} \\ = 252 \text{ months Ans}$$

(e) 8 years 3 months

$$\text{Sol: } 8 \text{ y } 3 \text{ m} = 8 \text{ y} + 3 \text{ m} \\ = 8 \times 12 \text{ m} + 3 \text{ ms} \\ = 96 \text{ month} + 3 \text{ month} \\ = 99 \text{ months Ans}$$

(f) 5 years 4 months

$$\text{Sol: } 5 \text{ year } 4 \text{ month} = 5 \text{ year} + 4 \text{ month}$$

$$= 60 \times 4 \text{ m} = 64 \text{ months Ans}$$

20 years 6 months

(g) Sol: 20 year + 6 months
 $= 20 \times 12 \text{ months} + 6 \text{ months}$
 $= 240 \text{ month} + 6 \text{ month}$
 $= 246 \text{ month Ans}$

17 years 10 months

(h) Sol: 17 years + 10 months
 $1 \text{ year} = 12 \text{ months}$
 $= 17 \times 12 \text{ months} + 10 \text{ months}$
 $= 204 \text{ months} + 10 \text{ months}$
 $= 214 \text{ months Ans}$

30 years 11 months

(i) Sol: 30 years + 11 months
 $1 \text{ year} = 12 \text{ months}$
 $= 30 \times 12 \text{ months} + 11 \text{ months}$
 $= 360 \text{ months} + 11 \text{ months Ans}$
 $= 371 \text{ months Ans}$

29 years 7 months

(j) Sol: 29 years + 7 months
 $1 \text{ year} = 12 \text{ months}$
 $= 29 \times 60 \text{ months} + 7 \text{ months}$
 $= 348 \text{ months} + 7 \text{ months}$
 $= 355 \text{ months Ans}$

15 years 11 months

(k) Sol: 15 years + 11 months
 $= 15 \times 12 \text{ months} + 11 \text{ months}$
 $= 180 \text{ months} + 11 \text{ months}$
 $= 191 \text{ months Ans}$

43 years 7 months

(l) Sol: 43 years + 7 months
 $= 43 \times 12 \text{ months} + 7 \text{ months}$
 $= 516 \text{ months} + 7 \text{ months}$
 $= 532 \text{ Months Ans}$

Q2. Convert the given into days

(a) **11 weeks**

$$1 \text{ week} = 7 \text{ days}$$

$$11 \text{ week} = 11 \times 7 \text{ days}$$

 $= 77 \text{ days Ans}$

(b) **8 weeks**

$$1 \text{ week} = 7 \text{ days}$$

$$8 \text{ week} = 8 \times 7 \text{ days}$$

 $= 56 \text{ days Ans}$

(c) **5 weeks**

$$1 \text{ week} = 7 \text{ days}$$

$$5 \text{ week} = 5 \times 7 \text{ days}$$

 $= 35 \text{ days Ans}$

(d) **25 weeks**

$$1 \text{ week} = 7 \text{ days}$$

$$25 \text{ week} = 25 \times 7 \text{ days}$$

 $= 175 \text{ days Ans}$

(e) **9 weeks 6 days**

$$9 \text{ weeks 6 days} = 9 \text{ weeks} + 6 \text{ days}$$

 $= 9 \times 7 \text{ days} + 6 \text{ days}$
 $= 63 \text{ days} + 6 \text{ days} = 69 \text{ days Ans}$

(f) **7 weeks 1 day**

$$7 \text{ weeks 1 day} = 7 \text{ weeks} + 1 \text{ day}$$

 $= 7 \times 7 \text{ days} + 1 \text{ day}$
 $= 49 \text{ days} + 1 \text{ day} = 50 \text{ days Ans}$

(g) **2 weeks 5 days**

Sol: 2 weeks 5 days = 2 weeks + 5 days
 $= 2 \times 7 \text{ days} + 5 \text{ days}$
 $= 14 \text{ days} + 5 \text{ days} = 19 \text{ days Ans.}$

(h) **4 weeks 3 days**

$$4 \text{ weeks 3 days} = 4 \text{ weeks} + 3 \text{ days}$$

 $= 4 \times 7 \text{ days} + 3 \text{ days}$
 $= 28 \text{ days} + 3 \text{ days} = 31 \text{ days Ans}$

(i) **32 weeks 4 days**

Sol: 32 weeks 4 days = 32 weeks + 4 days
 $= 32 \times 7 \text{ days} + 4 \text{ days}$
 $= 224 \text{ days} + 4 \text{ days} = 228 \text{ days Ans}$

(j) **27 months 3 days**

Sol: 27 months 3 days = 27 months + 3 days
 $= 27 \times 7 \text{ days} + 3 \text{ days}$
 $= 189 \text{ days} + 3 \text{ days} = 192 \text{ days Ans}$

(k) **41 months 12 days**

Sol: 41 months 12 days = 41 month + 12 days
 $= 41 \times 30 \text{ days} + 12 \text{ days}$
 $= 1230 \text{ days} + 12 \text{ days}$
 $= 1242 \text{ days}$

(l) **54 months 13 days**

$$54 \text{ months 13 days} = 54 \text{ months} + 13 \text{ days}$$

 $= 54 \times 30 \text{ days} + 13 \text{ days}$
 $= 1620 \text{ days} + 13 \text{ days}$
 $= 1633 \text{ days Ans}$

Exercise 4 (TB Pg 126)

Q1. Solve the following.

(a) $34\text{h } 11\text{ min } 13\text{ sec} + 11\text{h } 18\text{ min } 32\text{ sec}$

Sol	h	min	sec
	34	11	13
+	11	18	32
	45	29	45

= 45 h 29 min 45 sec Ans

(b) 24h 34 min 37 sec + 2h 21 min 11 sec

Sol	h	min	sec
	24	34	37
+	2	21	11
	26	55	48

= 26 h 55 min 48 sec Ans

(c) 54h 19 min 45 sec + 43h 20 min 10 sec

Sol	h	min	sec
	54	19	45
+	43	20	10
	97	39	55

= 97 h 39 min 55 sec Ans

(d) 5h 15 min 31 sec + 4h 4 min 25 sec

Sol	h	min	sec
	5	15	31
+	4	4	25
	9	19	56

= 9 h 19 min 56 sec Ans

(e) 14 y 7 m 2 d & 7 y 4 m 2 d

Sol	years	months	days
	14	7	2
+	7	4	2
	21	11	4

= 21 years 11 months 4 days. Ans

(f) 51h 02 min 08 sec + 37h 11 min 09 sec

Sol	h	min	sec
	51	02	08
+	37	11	09
	88	13	17

= 88 h 13 min 17 sec Ans

(g) 49 y 2 m 5 d + 40 y 5 m 11 d

Sol	year	month	Days
	49	2	05
+	40	5	11
	89	7	16

= 89 years 7 months 16 days. Ans

(h) 27 y 3 m 5 d & 32y 6 m 4 d

Sol	year	month	Days
-----	------	-------	------

	27	3	5
+	32	6	4
	59	9	9

= 59 years 9 months 9 days. Ans

Q2. Solve the following

(a) 45 h 45 m 49 sec - 10 h 23 m 38 sec

Sol	h	min	sec
	45	45	49
-	10	23	38
	35	22	11

= 35h 22 min 11 sec Ans

(b) 57 h 22 m 27 sec - 33h 11 min 12sec

Sol	h	min	sec
	57	22	27
-	33	11	12
	24	11	15

= 24h 11 min 15 sec Ans

(c) 65 h 28 m 56 sec - 54 h 20 m 45 sec

Sol	h	min	sec
	65	28	56
-	54	20	45
	11	08	11

= 11h 08 min 11 sec Ans

(d) 6 h 26 m 42 sec - 5 h 15 m 31 sec

Sol	H	min	sec
	6	26	42
-	5	15	31
	1	11	11

= 1h 11 min 11 sec Ans

(e) 25 y 8 m 3 d - 23 y 6 m 1 d

Sol	Years	Months	Days
	25	8	3
-	23	6	1
	02	2	2

= 2 years 2 months 2 days Ans

(f) 62 h 53 m 29 sec - 51 h 42 m 08 sec

Sol	h	min	sec
	62	53	29
-	51	42	08
	11	11	21

= 33h 11 min 21 sec Ans

Q3. Ahmad went to his grandmother's home on Sunday and he stays there for 2 hours and 20 minutes. On Monday, he goes

to his Aunti's home and he spends 4 hours and 23 minutes. Find:

(a) How much time does he spend at his relative's home?

Sol	h	m
	2	20
+	4	23
	6	43

He spends 6h 43 min at his relative's home.

(b) Write the time in minutes.

Sol: $6h + 43 \text{ min}$
 $= 6 \times 60 \text{ min} + 43 \text{ min}$
 $= 360 \text{ min} + 43 \text{ min}$
 $= 403 \text{ min}$ Ans

Q4. Ejaz travelled 6 hours 34 minute 45 seconds in a bus and 4 hours 20 minutes 12 seconds. In a train: Find

(a) How much more times did he travel in the bus than the train?

Sol: In this case we will use the process of subtraction

	h	min	sec
Travelled by bus =	6	34	45 +
Travelled by train =	4	20	12
Difference =	2	14	33

Ejaz travelled 2h 14 min 33 sec more in the bus than by train.

(b) How much he travelled in all in bus and train? The total he travelled.

Sol: In this case we, will use the process of addition.

	h	min	sec
Travelled by bus =	6	34	45 +
Travelled by train =	+4	20	12
Total travelled =	10	54	57

Ejaz travelled 10h 54 min 57 sec in all in bus and train. Ans

Note: The book answer is wrong. In Q4 (a) & (b)

Q5. Maha takes 9 hours 23 minutes to complete a picture while Rohan takes 7 hours 10 minutes to complete the same picture. Find

(a) How much more time does Maha take?

Sol: h min

Maha takes =	9	23
Rohan Takes =	7	10 -
Difference =	2	13

Maha take 2h 13min more. Ans

(b) The total time they take altogether?

Sol:	h	min
Maha takes =	9	23
Rohan Takes =	7	10 +
Total time taken =	16	33

The total time they take 16h 33min. Ans

Review Exercise (TB Pg 127)

Q1. Choose the correct answer.

(a) There is 13:50 in 24 hour clock, what time will be in 12 hour clock?

- (i) 1:50a.m. (ii) 3:50p.m.
 (iii) 1:50p.m.✓ (iv) 12:50p.m.

(b) There is 3:55 in 12 hours clock, what time will be in 24 hour clock.

- (i) 13:55 (ii) 14:55
 (iii) 15:55✓ (iv) 16:55

(c) Which time is long from the following?

- (i) 2 years✓ (ii) 12 months
 (iii) 1 year 3months (iv) 350 days

(d) There are _____ months in 2 years 6 months.

- (i) 21 (ii) 28
 (iii) 26 (iv) 30✓

(e) To convert years into month we multiply the given years by _____.

- (i) 24 (ii) 10
 (iii) 11 (iv) 12✓

Q2. Circle the correct time boxes by using the 12-hours format.

Day activities	Time in 12 hour
(a) Time of Fajar prayer	5:00 a.m. 5:00 p.m.
(b) Breakfast time	7:30 a.m. 7:30 p.m.
(c) School's assembly time	8:00 a.m. 8:00 p.m.
(d) Break time in school	12:20 a.m. 12:20 p.m.
(e) Time to watch tv at noon	3:00 a.m. 3:00 p.m.
(f) Dinner time	9:25 a.m. 9:25 p.m.

Focus Student Resource Book

Q3. Convert the following into minutes.

(a) 8 h

Sol: 1 h = 60 min

8 h = 8×60 min

= 480 min Ans

(b) 112 h

Sol: 1 h = 60 min

112 h = 112×60 min

= 6720 min Ans

(c) 15 h 13 min

Sol: 15 h 13 m = 15h + 13m

= 15×60 min + 13min

= 900 min + 13min

= 913 min Ans

15h 13 min = 913 min Ans

(d) 7 h 15 min

Sol: 7 h 15 m = 7h + 15m

= 7×60 min + 15min

= 420 min + 15min

7h 15 min = 435 min Ans

(e) 28 h 39 min

Sol: 28 h 39 m = 28h + 39m

= 28×60 min + 39min

= 1680 min + 39min

28h 39 min = 1719 min Ans

(f) 33 h 25 min

Sol: 33 h 25 m = 33h + 25m

= 33×60 min + 25min

= 1980 min + 25min

33h 25 min = 2005 min Ans

(g) 11 h 13 min

Sol: 11 h 13 m = 11h + 13m

= 11×60 min + 13min

= 660 min + 13min

11h 13 min = 673 min Ans

(h) 23 h 16 min

Sol: 23 h 16 m = 23h + 16m

= 23×60 min + 16min

= 1380 min + 16min

23h 16 min = 1396 min Ans

(i) 6 h 54 min

Sol: 6 h 54 m = 6h + 54m

= 6×60 min + 54min

= 360 min + 54min

$$\begin{array}{r} 60 \\ \times 8 \\ \hline 480 \end{array}$$

$$\begin{array}{r} 112 \\ \times 60 \\ \hline 6720 \end{array}$$

$$\begin{array}{r} 1513 \\ \times 60 \\ \hline 9000 \\ +900 \\ \hline 9130 \end{array}$$

$$\begin{array}{r} 715 \\ \times 60 \\ \hline 4200 \\ +700 \\ \hline 4350 \end{array}$$

$$\begin{array}{r} 2839 \\ \times 60 \\ \hline 16800 \\ +2520 \\ \hline 17190 \end{array}$$

$$\begin{array}{r} 3325 \\ \times 60 \\ \hline 19800 \\ +1500 \\ \hline 20050 \end{array}$$

$$\begin{array}{r} 1113 \\ \times 60 \\ \hline 6600 \\ +1320 \\ \hline 6730 \end{array}$$

$$\begin{array}{r} 2316 \\ \times 60 \\ \hline 13800 \\ +1920 \\ \hline 13960 \end{array}$$

$$\begin{array}{r} 654 \\ \times 60 \\ \hline 3600 \\ +540 \\ \hline 3654 \end{array}$$

6h 54 min = 414 min Ans

Q4. Convert the following into seconds.

(a) 78 min

Sol: 1 m = 60 sec

78 min = 78×60 sec

= 4680 Sec

(b) 33 min

Sol: 1 m = 60 sec

33 min = 33×60 sec

= 1980 sec

(c) 4 min 17 sec

Sol: 4m 17sec = 4min + 17 S

= 4×60 sec + 17 sec

= 240 Sec + 17 sec

= 257 sec Ans

(d) 9 min 42 sec

Sol: 9m 42sec = 9min + 42s

= 9×60 sec + 42 sec

= 540 Sec + 42 sec

9min 42sec = 582 sec Ans

(e) 2 min 53 sec

Sol: 2m 53sec = 2min + 53 s

= 2×60 sec + 53 sec

= 120 Sec + 53 sec

2min 53 sec = 173 sec Ans

(f) 21 min 11 sec

Sol: 21min 11s = 21min + 11S

= 21×60 sec + 11 sec

= 1260 + 11 sec

21min 11 sec = 1271s Ans

(g) 97 min 47 sec

Sol: 97min 47sec = 97 min + 47 s

= 97×60 sec + 47 sec

= 5820 Sec + 47 sec

= 97min = 5867S Ans

(h) 48 min 47 sec

Sol: 48min 47sec = 48min + 47s

= 48×60 sec + 47 sec

= 2880 Sec + 47 sec

48 min 47sec = 2927S Ans

(i) 433 min 44 sec

Sol: 433 min 44 s = 433min + 44 s

$$\begin{array}{r} 78 \\ \times 60 \\ \hline 4680 \end{array}$$

$$\begin{array}{r} 33 \\ \times 60 \\ \hline 1980 \end{array}$$

$$\begin{array}{r} 417 \\ \times 60 \\ \hline 25020 \\ +1020 \\ \hline 26040 \end{array}$$

$$\begin{array}{r} 942 \\ \times 60 \\ \hline 56520 \\ +2520 \\ \hline 59040 \end{array}$$

$$\begin{array}{r} 253 \\ \times 60 \\ \hline 15180 \\ +1580 \\ \hline 16760 \end{array}$$

$$\begin{array}{r} 2111 \\ \times 60 \\ \hline 126660 \\ +1110 \\ \hline 127770 \end{array}$$

$$\begin{array}{r} 9747 \\ \times 60 \\ \hline 584820 \\ +5250 \\ \hline 590070 \end{array}$$

$$\begin{array}{r} 4847 \\ \times 60 \\ \hline 290820 \\ +5220 \\ \hline 296040 \end{array}$$

$$\begin{array}{r} 43344 \\ \times 60 \\ \hline 259860 \\ +25680 \\ \hline 285540 \end{array}$$

$$= 433 \times 60 \text{ sec} + 44 \text{ sec}$$

$$= 25980 \text{ sec} + 44 \text{ sec}$$

$$= 26024 \text{ sec Ans}$$

$$433 \text{ min } 44 \text{ sec} = 26024 \text{ sec}$$

Q5. Convert the following into months?

(a) 5 years

Sol: $1 \text{ year} = 12 \text{ months}$

$$5 \text{ years} = 5 \times 12 \text{ months}$$

$$= 60 \text{ months Ans}$$

(b) 3 years

Sol: $3 \times 12 \text{ months}$

$$= 36 \text{ months Ans}$$

(c) 22 years

Sol: $22 \times 12 \text{ months}$

$$= 264 \text{ months Ans}$$

(d) 32 years

Sol: $32 \times 12 \text{ months}$

$$= 384 \text{ months Ans}$$

(e) 9 years 4 months

Sol: $9 \text{ years} + 4 \text{ months}$

$$= 9 \times 12 \text{ months} + 4 \text{ months}$$

$$= 108 \text{ m} + 4 \text{ months} = 112 \text{ months}$$

(f) 15 years 10 months

Sol: $15 \text{ years} + 10 \text{ months}$

$$= 5 \times 12 \text{ months} + 10 \text{ months}$$

$$= 180 \text{ months} + 10 \text{ months}$$

$$= 190 \text{ months Ans}$$

(g) 29 years 8 months

Sol: $29 \text{ years} + 8 \text{ months}$

$$= 29 \times 12 \text{ months} + 8 \text{ months}$$

$$= 348 \text{ months} + 8 \text{ months}$$

$$29 \text{ years } 8 \text{ months} = 356 \text{ months Ans}$$

(h) 19 years 11 months

Sol: $19 \text{ years} + 11 \text{ months}$

$$= 19 \times 12 \text{ months} + 11 \text{ months}$$

$$= 228 \text{ months} + 11 \text{ months}$$

$$= 239 \text{ months}$$

(i) 54 years 9 months

Sol: $54 \text{ years} + 9 \text{ months}$

$$= 54 \times 12 \text{ months} + 9 \text{ months}$$

$$= 648 \text{ months} + 9 \text{ months}$$

$$= 657 \text{ months}$$

Q6. Convert the following to days.

(a) 15 weeks

Sol: $1 \text{ week} = 7 \text{ days}$

25 9 80

$$= 15 \times 7 \text{ days}$$

$$= 105 \text{ days Ans}$$

(b) 9 weeks

Sol: $1 \text{ week} = 7 \text{ days}$

$$= 9 \times 7 \text{ days}$$

$$= 63 \text{ days Ans}$$

(c) 6 weeks

Sol: $1 \text{ week} = 7 \text{ days}$

$$= 6 \times 7 \text{ days}$$

$$= 42 \text{ days Ans}$$

(d) 27 weeks

Sol: $1 \text{ week} = 7 \text{ days}$

$$= 27 \times 7 \text{ days}$$

$$= 189 \text{ days Ans}$$

(e) 11 weeks 2 days

Sol: $11 \text{ weeks} + 2 \text{ days}$

$$1 \text{ week} = 7 \text{ days}$$

$$= 11 \times 7 \text{ days} + 2 \text{ days}$$

$$= 79 \text{ days Ans}$$

(f) 9 weeks 5 days

Sol: $9 \text{ weeks} + 5 \text{ days}$

$$1 \text{ week} = 7 \text{ days}$$

$$= 9 \times 7 \text{ days} + 5 \text{ days}$$

$$= 63 \text{ days} + 5 \text{ days}$$

$$= 68 \text{ days Ans}$$

(g) 11 weeks 6 days

Sol: $11 \text{ weeks} + 6 \text{ days}$

$$1 \text{ week} = 7 \text{ days}$$

$$= 11 \times 7 \text{ days} + 6 \text{ days}$$

$$= 77 \text{ days} + 6 \text{ day}$$

$$= 83 \text{ days Ans}$$

(h) 56 weeks 4 days

Sol: $56 \text{ weeks} + 4 \text{ days}$

$$1 \text{ week} = 7 \text{ days}$$

$$= 56 \times 7 \text{ days} + 4 \text{ days}$$

$$= 396 \text{ days Ans}$$

(i) 43 weeks 3 days

Sol: $43 \text{ weeks} + 3 \text{ days}$

$$1 \text{ week} = 7 \text{ days}$$

$$= 43 \times 7 \text{ days} + 3 \text{ days}$$

$$= 301 \text{ days} + 3 \text{ day}$$

$$= 304 \text{ days Ans}$$

Q7. Solve the following:

(a) $37 \text{ h } 11 \text{ min } 38 \text{ sec} + 32 \text{ h } 34 \text{ min } 16 \text{ sec}$

	h	min	sec
	37	11	38
+	32	34	16
	69	45	54

= 69 h 45 min 54 sec Ans

(b) 44 h 25 min 38 sec + 32 h 34 min 06 sec

	h	min	sec
	44	25	38
+	32	34	06
	76	59	44

= 76 h 59 min 44 sec Ans

(c) 6 h 25 min 35 sec + 3 h 13 min 14 sec

	h	min	sec
	6	25	35
+	3	13	14
	9	38	49

= 9 h 38 min 49 sec Ans

Q8. Solve the following.

(a) 38 h 33 min 38 sec - 00 h 22 min 26 sec

	h	min	sec
	38	33	38
-	00	22	26
	38	11	12

= 38 h 11 min 12 sec Ans

(b) 56 h 56 min 58 sec - 44 h 43 min 37 sec

	h	min	sec
	56	56	58
-	44	43	37
	12	13	21

= 12 h 13 min 21 sec Ans

(c) 37 h 54 min 49 sec - 21 h 32 min 00 sec

	h	min	sec
	37	54	49
-	21	32	00
	16	22	49

= 16 h 22 min 49 sec Ans

Q9. Afnan spends 5 hours 23 minutes in study and 1 hour 20 minutes in playing.

(a) How much time does he spend in both activities?

Sol: To find the time that he spend in both activities then we will use the process of addition.

Spend time in study =

Spend time in playing

Total spends time

= 6h 43 min Ans

(b) Write the total time in minutes

Sol: 6 h 43 min

= 6 h + 43 min

1 h = 60 min

= 6 × 60 min + 43 min

= 360 min + 43 min

= 403 min Ans

Q10. It take a cook 2 hours 43 minutes 54 seconds to make a savoury dish and one hour 12 minutes 24 seconds to make a desert. Find how much more time he takes to make the savoury dish?

sol

	h	min	sec
	2	43	54
-	1	12	24
	1	31	30

= 1 h 31 min 30 m sec

1 h 31 min 30 sec more time he takes to make the savoury dish. Ans.

Q11. Asfandiyar spend 7 year 4 months 2 days in Saudi Arabia and 2 years 7 months 7 days in UAE.

(a) How much time does he spend out of the country?

Sol: To find out how much he does spend out of the country, we will use the process of addition.

	Years	Months	Days
Spend time in S. Arabia	7	4	2
Spend time in UAE	2	7	7+
Total spends time	9	11	9

So, the total spent time in both contains in 9 years 11 months 9 days. Ans

(b) Write the total time in days.

Sol: 9 years 11 months 9 days

= 9 years + 11 months + 9 days

1 year = 365 days

1 Months = 30 days

= 9 × 365 days + 11 × 30 days + 9 days

= 3285 days + 330 days + 9 days

= 3625 days. Ans

Q12. Farheen completes her medical in 4 years 10 months 7 days and her house job in 2 years 2 days. How much time did she spend in medical education and house job?

Sol:

	Years	months	days
Spend time on medical	4	10	7
Spend, time an house	2	00	2+

Total spends time

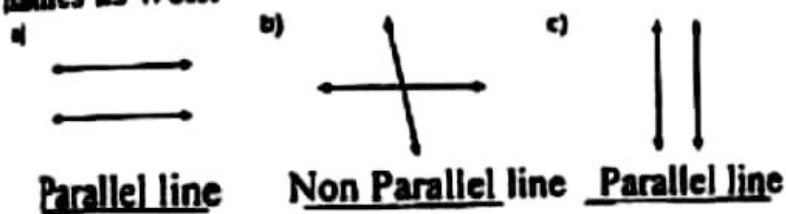
6	10	9
---	----	---

Farheen spends 6 years 10 months 9 days in medical education and house job. Ans

Unit No. 6 (GEOMETRY)

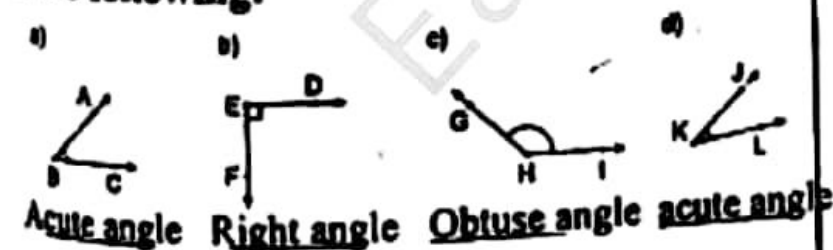
Exercise No 1 (TB PG 134)

Q1. Identify parallel and non-parallel lines from the given lines and write their names as well.

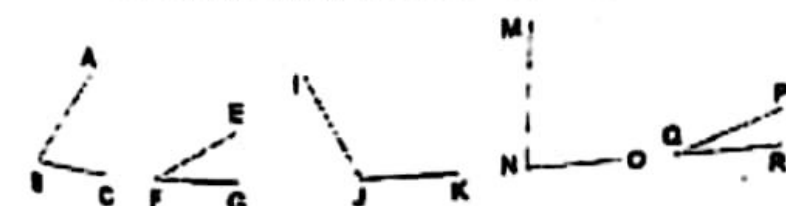


Exercise 2 (TB PG 142)

Q1. Write the name and types of angles in the following:



Q2. Measure the following angles.

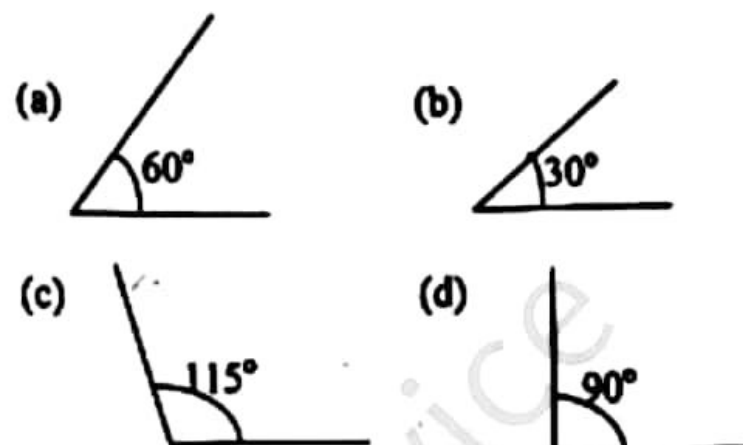


Sol:

(i) $\angle ABC = 52^\circ$	(ii) $\angle EFG = 30^\circ$
(iii) $\angle IJK = 118^\circ$	(iv) $\angle MNO = 85^\circ$
(v) $\angle PQR = 20^\circ$	

Q3. Construct the angles the given measurements.

(a) 60° (b) 30° (c) 115° (d) 90°



Q4. Measure the angles in the following figures and write their names as well.

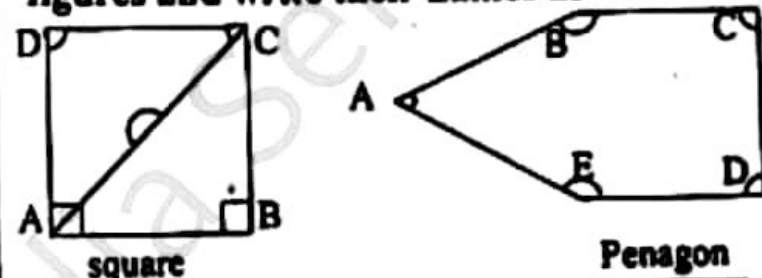


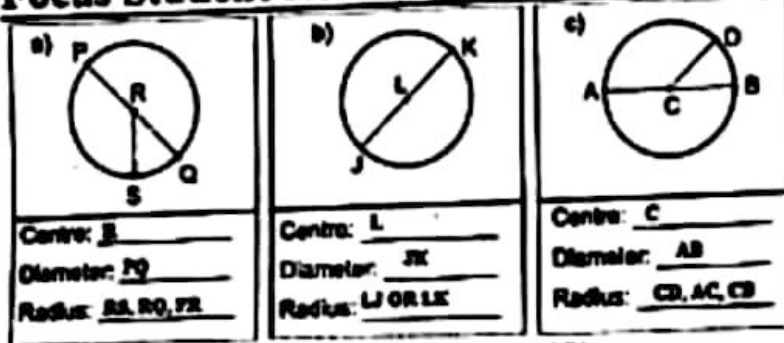
Figure (a)	Figure (b)
$\angle B = 90^\circ$	$\angle C = 90^\circ$
$\angle D = 90^\circ$	$\angle D = 90^\circ$
$\angle DCA = 45^\circ$	$\angle E = 155^\circ$
$\angle DAC = 45^\circ$	$\angle B = 150^\circ$
$\angle BAC = 45^\circ$	$\angle A = 55^\circ$

Exercise 3 (TB PG 146)

Q1. Draw the parts of the following circle

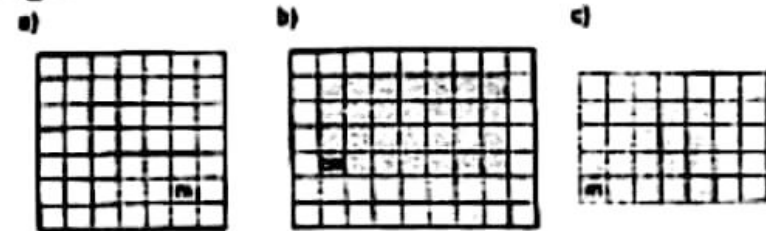


Q2. Write the name of parts of the circles.



Exercise 4 (TB pg 149)

Q1. Find the perimeter of the given figures.

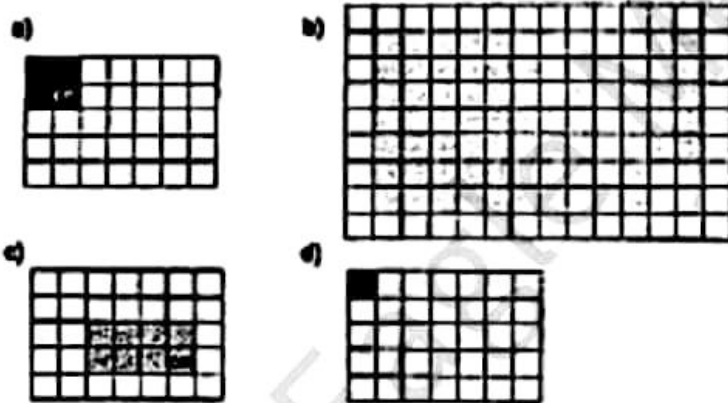


(a) Sol: $P = 5m + 5m + 5m + 5m$
 $P = 10m + 10m$
 $P = 20m$ Ans

(b) Sol: $P = 7cm + 4cm + 7cm + 4cm$
 $P = 11cm + 11cm$
 $P = 22cm$ Ans

(c) $P = 6m + 4m + 6m + 4m$
 $P = 10m + 10m$
 $P = 20m$ Ans

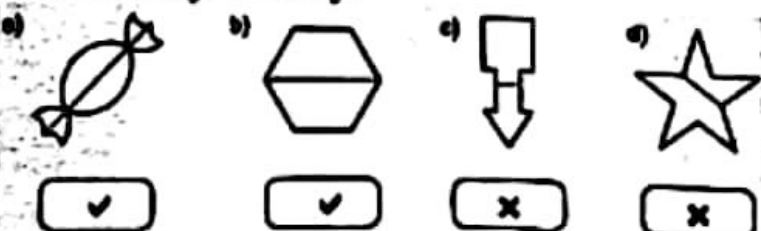
Q2. Find the area of the given figures.



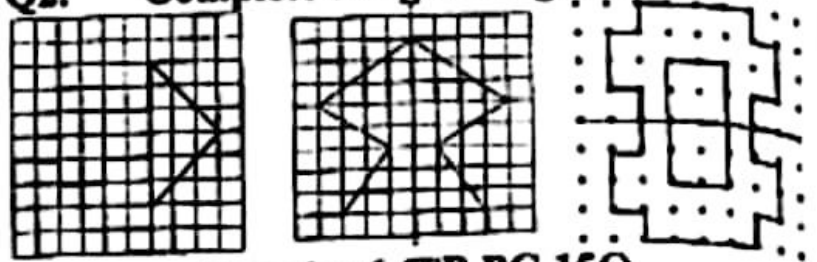
(a) Sol: $A = 2 \times 2 = 4cm^2$ Ans
 (b) Sol: $A = 12 \times 7 = 84m^2$ Ans
 (c) Sol: $A = 4 \times 2 = 8cm^2$ Ans
 (d) Sol: $A = 1 \times 1 = 1m^2$ Ans

Exercise 5 (TB pg 153)

Q1. Mark (✓) on the figures where you can see line of symmetry.

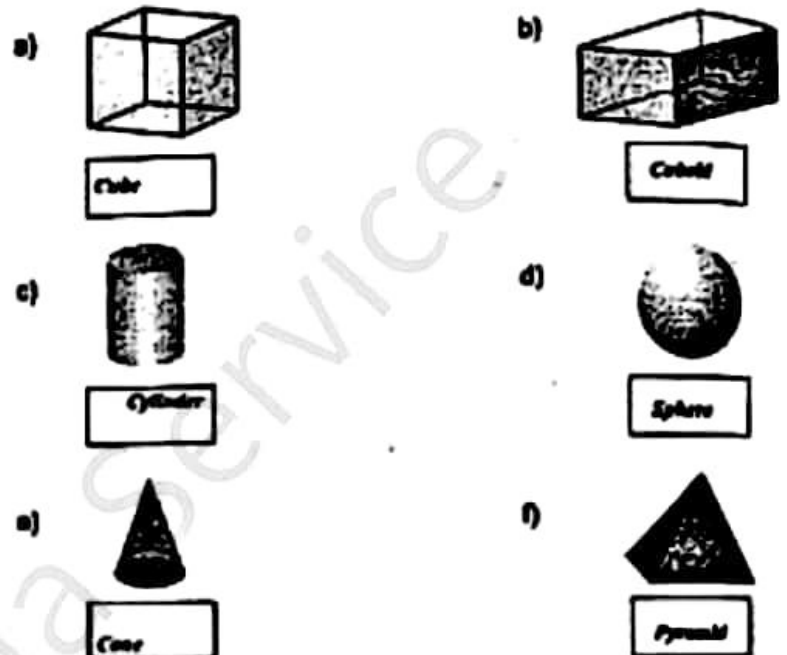


Q2. Complete the given figures.



Exercise 6 (TB PG 156)



















Q1. Write the names of these figures and label their vertices, edges, and surfaces.



Q2. Look at the figures given below and write their properties.

	3-D shapes	Vertices	Edges	Surfaces	Shapes of surfaces
a)		0	0	1	Curved surface
b)		05	9	5	one square and four triangular surfaces
c)		0	2	3	one curved and two circular surfaces
d)		1	1	2	one curved and other circular surface
e)		8	12	6	All surfaces are rectangles
f)		8	12	6	All surfaces are square

Q3. Mark (✓) the figure which has the given properties.

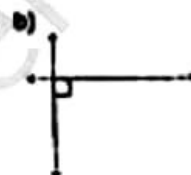
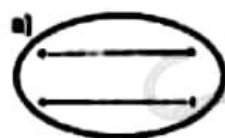
Properties	3-D shapes		
a) 0 vertices 3 surfaces 2 edges	<input type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input type="checkbox"/> 
b) 8 vertices 6 flat surfaces 12 edges	<input type="checkbox"/> 	<input type="checkbox"/> 	<input checked="" type="checkbox"/> 
c) 0 vertices 1 surface 0 edges	<input checked="" type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 
d) 5 vertices 5 surface 8 edges	<input type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input type="checkbox"/> 
e) 1 vertex 2 surfaces 1 edge	<input checked="" type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 
f) 8 vertices 6 rectangular surfaces 12 edges	<input type="checkbox"/> 	<input type="checkbox"/> 	<input checked="" type="checkbox"/> 

REVIEW EXERCISE

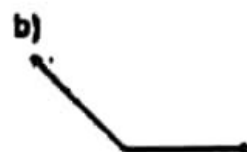
(a)	The lines which keep going straight and never meet each other are called:		
(i)	Horizontal lines	(ii)	Vertical lines
(iii)	Non-parallel lines	(iv)	Parallels lines ✓
(b)	There are _____ small parts in a protractor and each part is equal to 1 degree.		
(i)	150	(ii)	120
(iii)	180 ✓	(iv)	360
(c)	When horizontal and vertical lines intersect each other at a point, they form:		
(i)	Right angles ✓	(ii)	obtuse angles
(iii)	Acute angles	(iv)	Horizontal angles
(d)	An angle less than _____ is called acute angle.		

(i)	90° ✓	(ii)	80°
(iii)	100°	(iv)	180°
(e)	The length of boundary a circle is called _____ of the circle.		
(i)	Circumference ✓	(ii)	Centre
(iii)	Diameter	(iv)	Radius
(f)	The area covered by a closed figure is the _____ of that figure.		
(i)	Length	(ii)	Side
(iii)	Perimeter	(iv)	Area ✓
(g)	Line of symmetry divides a figure into _____ equal parts.		
(i)	5	(ii)	4
(iii)	3	(iv)	2 ✓

2. Encircle the parallel lines from the given lines.



3. Differentiate right, acute and obtuse angle in the following.



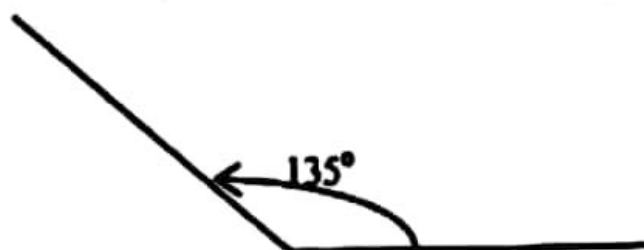
acute angle

obtuse angle

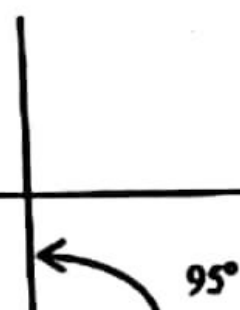
right angle

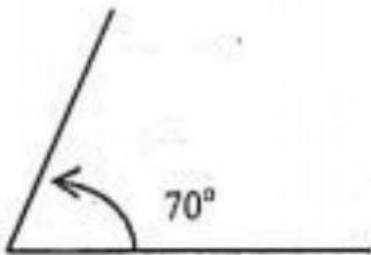
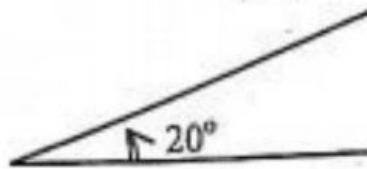
Q4. Draw the angles of given measurements.

(a) 135°

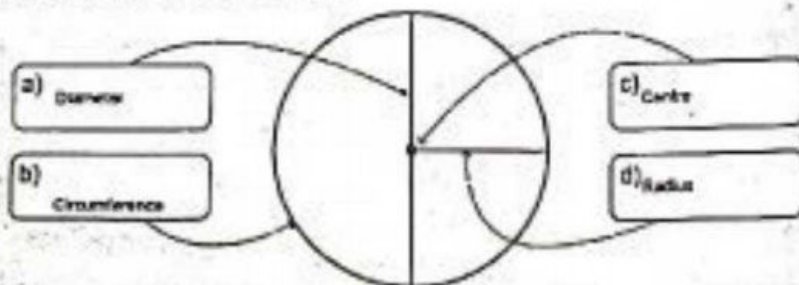


(b) 95°

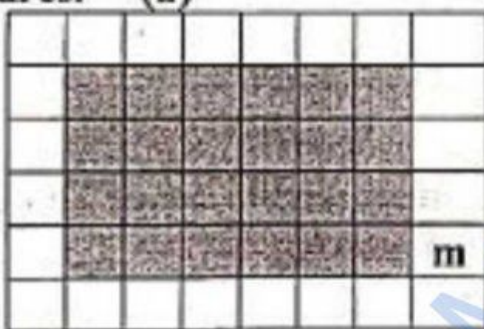


(c) 70° (d) 20° 

5. Label the circle.



Q6. Find the perimeter and area of the given figures. (a)

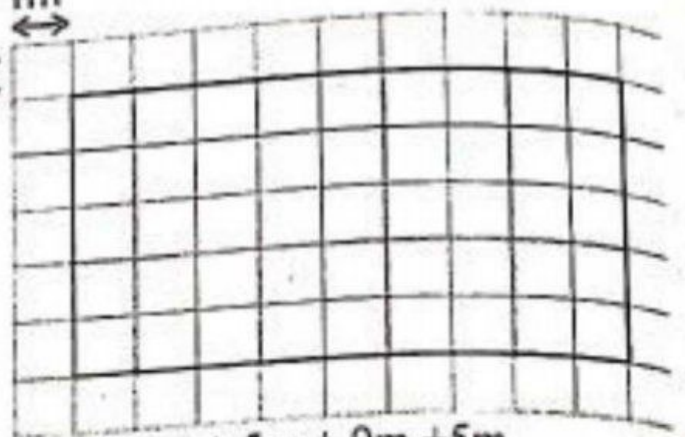


Sol: $P = 6m + 4m + 6m + 4m$
 $P = 10m + 10m$
 $P = 20m$ Ans
 $A = 24m^2$ Ans

(b)

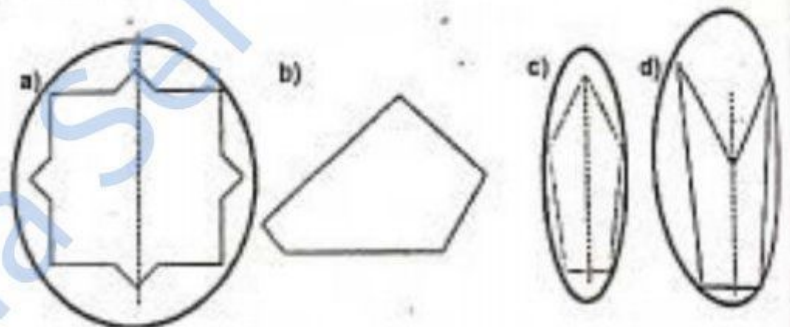


Sol: $P = 4cm + 4cm + 4cm + 4cm$
 $P = 8cm + 8cm$
 $P = 16cm$ Ans
 $A = 16cm^2$ Ans

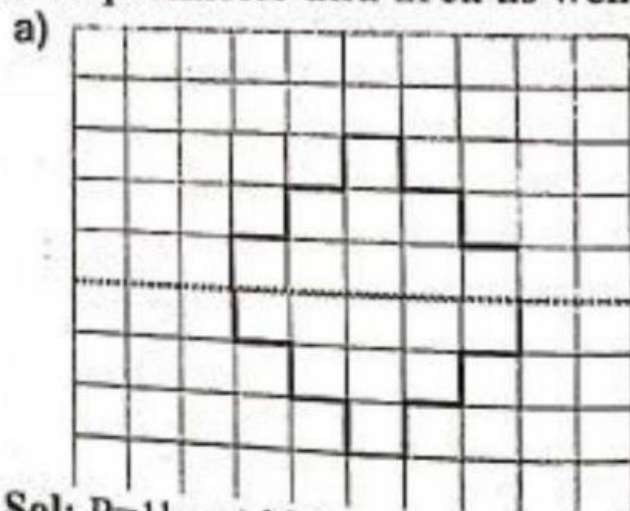
c) $1m$ 

Sol: $P = 9m + 5m + 9m + 5m$
 $P = 14m + 14m$
 $P = 28m$ Ans
 $A = 45m^2$ Ans

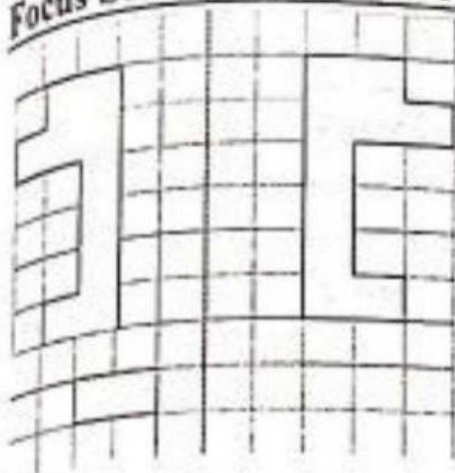
Q7. Identify the symmetry in the given figures and draw lines of symmetry where possible.



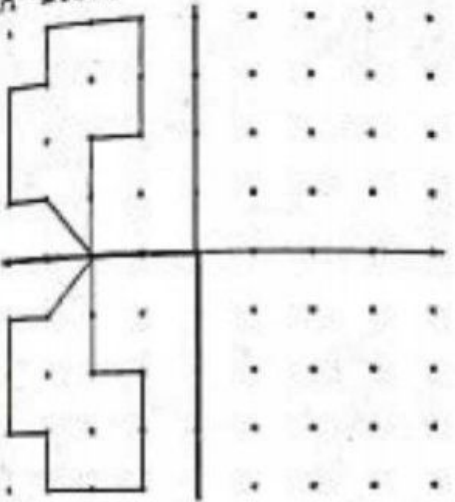
Q8. Complete the given figures and find their perimeter and area as well.



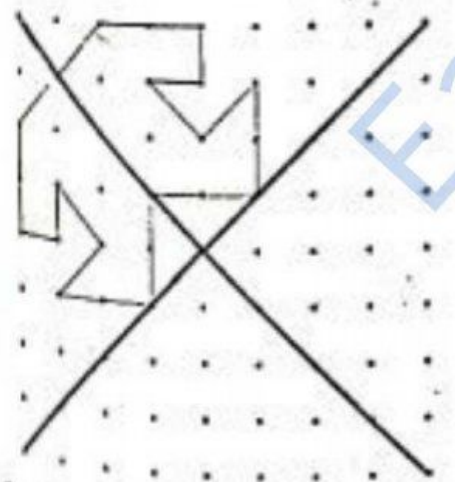
Sol: $P = 11m + 2m + 11m + 2m$
 $P = 22m$ Ans
 $A = 9cm^2 + 9cm^2$
 $A = 18cm^2$ Ans
 (b)



Sol:
 $P = 20\text{cm} + 20\text{cm}$
 $P = 40\text{cm}$ Ans
 $A = 10\text{cm}^2 + 10\text{cm}^2$
 $A = 20\text{cm}^2$



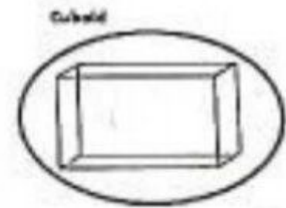
Sol:
 $P = 13\text{cm} + 13\text{cm}$
 $P = 26\text{cm}$ Ans
 $A = 7.5\text{cm}^2 + 7.5\text{cm}^2$
 $A = 15\text{cm}^2$ Ans



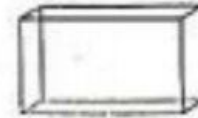
Sol:
 $P = 14\text{cm} + 14\text{cm}$
 $P = 28\text{cm}$ Ans
 $A = 17\text{cm}^2 + 17\text{cm}^2$
 $A = 34\text{cm}^2$

9. Encircle the figures which have the following properties.

a) 6 flat surfaces



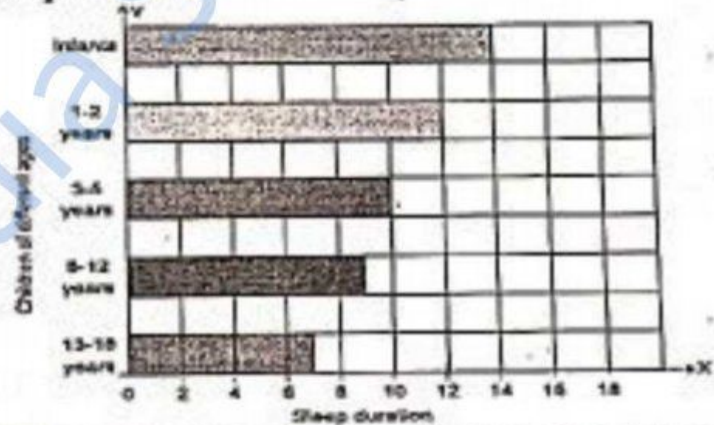
b) 1 vertex



UNIT 07 DATA HANDLING

(Exercise 1 (TB PG 167))

Q1. The minimum time for suggested sleep for children of four months to eighteen years is shown by using the following bar graphs. Look at the graph closely to answer the questions.

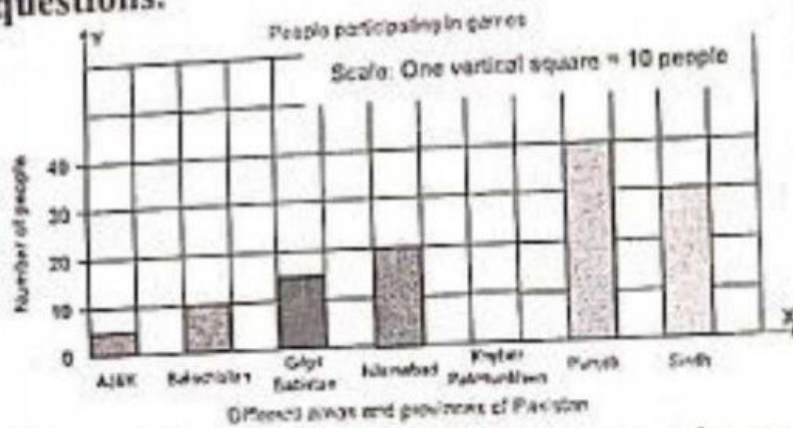


Scale: A small square in horizontal direction is equal to 2 hours.

- (a) For children of 6 to 12 years, time duration of suggested sleep is 9h.
- (b) For which age group, the time duration of sleep is maximum? 14h and how much? in infants
- (c) The sleep duration for children of age 13 to 18 years is 3 hours less than the sleep duration for children of age 3 to 5 years.
- (d) For which age group the time duration for sleep is minimum and how much? 13-18 years children and 7h.

Q2. In April 2020, people from different areas and provinces of Pakistan participated in games. The number of participants is shown with the help of this

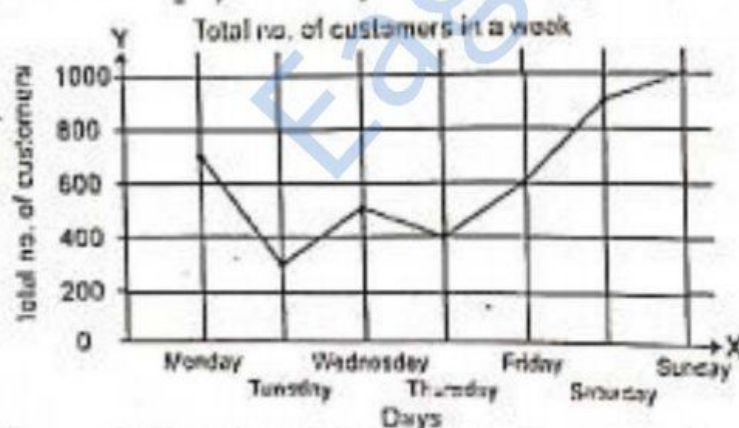
bar graph. Read the graph and answer the questions.



- (a) The greatest number of people are from Punjab and their quantity is 40.
 (b) The less number of people are and their quantity is. Sol: AJ&K and 5
 (c) From which cities 30 people participated? Sol: Sindh
 (d) In which two cities the people are of same quantity? Sol: Balochistan and KPK
 (e) What is the total number of people participated in Game. Sol: $5 + 10 + 15 + 20 + 10 + 40 + 30$
 $= 30 + 100$
 $= 130$ Ans.

Exercise 2 (PG Tb 171)

Q1. In a superstore, the number of customers who came for shopping from 11am in the morning to 6 pm in the evening for a week, is shown in this line graph. Read the graph carefully to answer the given questions.



- a) One what day did the maximum number of customers come and how many?
 Sol: Maximum number of customers came on Sunday which are 1000 Ans.

b) Is the total no. of customers coming on Monday and Thursday more or less than the no. of customers coming on Sunday?

Sol: Customer, coming on Monday = 700
 Customer coming on Thursday = 400
 Total customers coming on Monday and Thursday = $700 + 400 = 1100$
 Customers coming on Sunday = 1000
 $1100 - 1000 = 100$

Number of customers coming on Monday and Thursday 100 more than the numbers of customers coming on Sunday. Ans

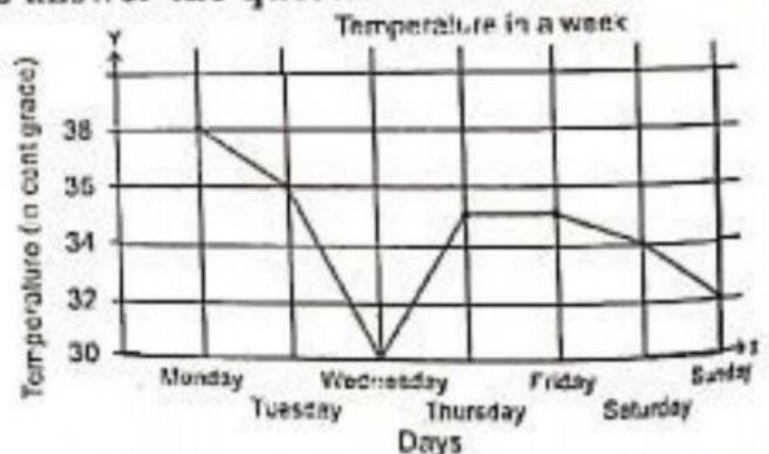
c) On what day did the minimum number of customers come and how many?

Sol: On Tuesday, minimum number of customers came which are 300 Ans.

d) How many customers came on Friday number of customers coming on Friday?

Sol: Number of customers came on Friday is 600. Ans

Q2. During a week of August, the maximum temperature (in centigrade) of Peshawar is shown in this line graph. Read it to answer the questions.



(a) On what day the temperature was highest?

Sol: The temperature on Monday was highest. Ans

(b) Which two days had the same temperature and how much?

Sol: The temperature on Thursday and Friday have same which is 35°C. Ans

(c) What was the lowest temperature and on what day.

Sol: The lowest temperature was 30°C on Wednesday.

(d) What was the temperature on Friday?
Sol: On Friday, the temperature was 35° .

Exercise 3 (Tb Pg 173)

Q1. The food components present in a boiled egg are shown in this pie chart. Read the chart carefully to answer the given questions.

(a) What is the quantity of fat in the boiled egg?

Sol: 5 Ans

(b) What component is present in the most amount?

Sol: Cholesterol Ans

(c) What is the total quantity of fat and proteins?

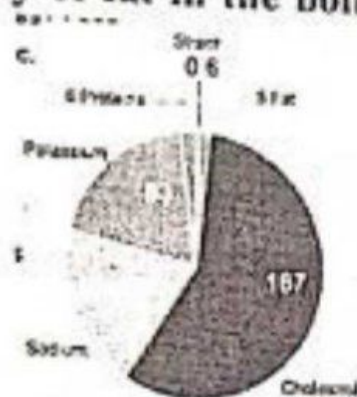
Sol $5 + 6 = 11$ Ans

(d) How much less is the quantity of proteins than the quantity of sodium?

Sol: $62 - 6 = 56$ Ans

(e) What is the component that is present in the least amount in boiled egg?

Sol: Starch Ans



Q2. A survey in village was carried out to find what cattle are bred by the people of the village.

(a) Which cattle is bred the most?

Sol: goats Ans

(b) Which cattle is bred the least?

Sol: donkeys

(c) Is the total number of sheep and goats more or less than the total number of donkeys and buffaloes, and how many more or less?

Sol: Number of sheep = 58
Number of goats = 100
Total number of sheep and goats
 $= 58 + 100 = 158$
Number of donkeys = 35
Number of buffaloes = 98



Total number of donkey and buffaloes
 $= 35 + 98 = 133$
 $158 - 133 = 25$ Ans.

The total number of sheep and goats more than the total number of donkeys and buffaloes.

(d) Write in the form of fraction what part is the number of bulls to the total number of cattle?

Sol: Number of bulls = 74

Total number of cattle = $100 + 58 + 98 + 35 + 74 = 365$

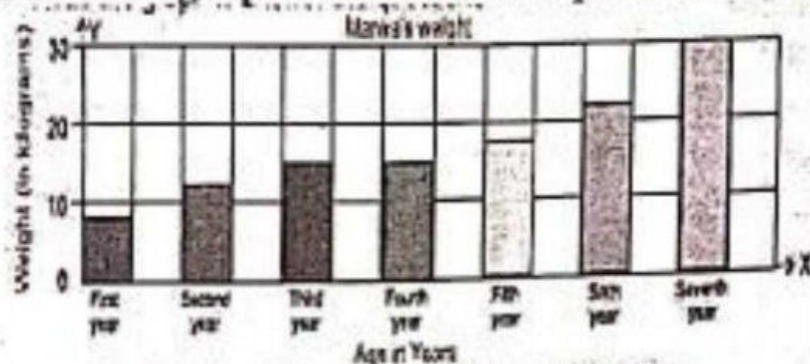
Required Fraction = $\frac{74}{365}$ Ans

Review Exercise (TB Pg 174)

Q1. Choose the correct answer.

(a)	It is important that in a bar graph, the _____ of each bar is same	
(i)	Length	(ii) Colour
(iii)	Width ✓	(iv) Value
(b)	Bar graphs can be of _____ types.	
(i)	Two ✓	(ii) Three
(iii)	Four	(iv) Five
(c)	_____ is also called a circle graph.	
(i)	Pie chart ✓	(ii) Line graph
(iii)	Vertical bar graph	(iv) Horizontal bar graph
(d)	_____ is drawn by joining the dots representing the quantity of a given value in the question	
(i)	Pie chart	(ii) Line graph ✓
(iii)	Vertical bar graph	(iv) Horizontal bar graph

Q2. Marwa's weight from birth to 7 years is shown in the following bar graph. Read the graph to answer the questions.



Scale: One square in vertical direction is representing 10 kg.

(a) What was Marwa's weight at the age of one year?

Sol: Marwa's weight was 8 kg at the age of one year. Ans.

(b) In what years Marwa's weight was same and how much?

Sol: At the age of 3rd year and 4th year Marwa's age was same and it was 14kg.

(c) What was the age duration in which Marwa's weight increased the most and how much?

Sol: At the age of 6th year and 7th year, Marwa's weight increased the most and which was 8kg.

(d) What was the age duration in which Marwa's weight increased the least and how much?

Sol: At the age of 2nd year and 3rd year, Marwa's weight increase the least and which was 4 kg. Ans

(e) How much did Marwa's weight increased in total from the age of one year to 7 year.

Sol: $4+2+0+4+4+8=22$

Marwa's weight increased in total from the age of one year seven years in 22kg. Ans.

Q3. Ahad has planted different flowers in his garden. Their number and type is shown in this bar graph. Read the graph to answer the questions.

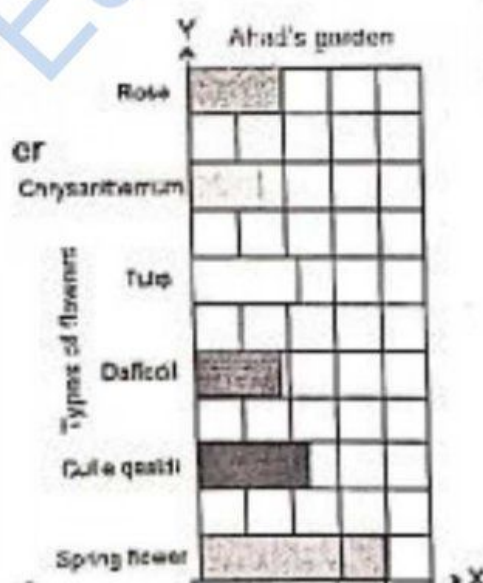
(a) How many roses are there in Ahad's garden?

Sol: 10 Ans

(b) How much less are the tulips than the Gul e qasidi?

Sol: $13 - 12 = 1$ Ans

(c) Which flowers are present in the most number in Ahad's and how many are they.



Sol: Spring flowers are present in the most number in Ahad's garden which are 20.

(d) Write in fraction from the number of tulips as compared to the total number of all the flowers.

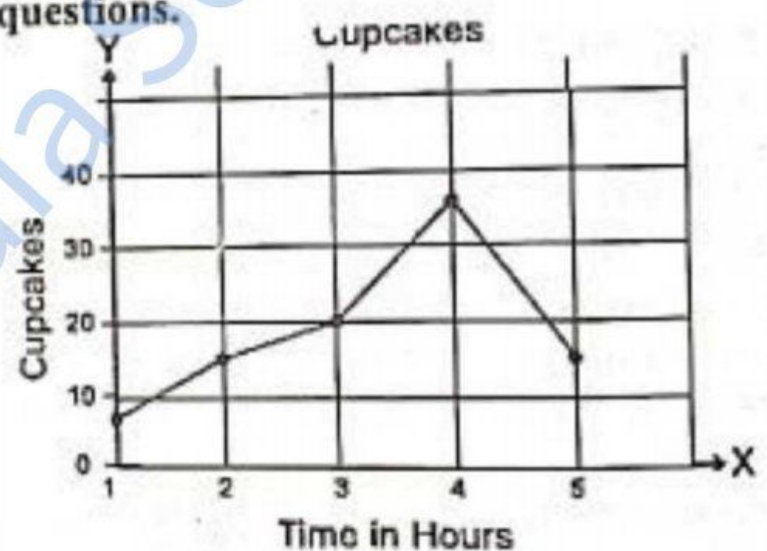
Sol: Total number of flowers
 $= 20 + 13 + 9 + 12 + 7 + 10 = 71$

Required fraction = $\frac{12}{71}$ Ans

(e) Which flowers are present in the least number and how many are they?

Sol: Chrysanthemum are present least number and which was 7 Ans.

Q4. Ibrahim setup a stall of cupcakes on the spring festival of his school. Ibrahim drew a line graph of the cupcakes sold in each hour from 9 in the morning to 2 in the afternoon. Look at the graph to answer the questions.



(a) How many cupcakes were sold in the third hour?

Sol: 20 cupcakes Ans

(b) In which hour were the most cupcakes sold and what was their numbers?

Sol: In 4th hours; the most cupcakes were sold and which was 35 cupcakes. Ans

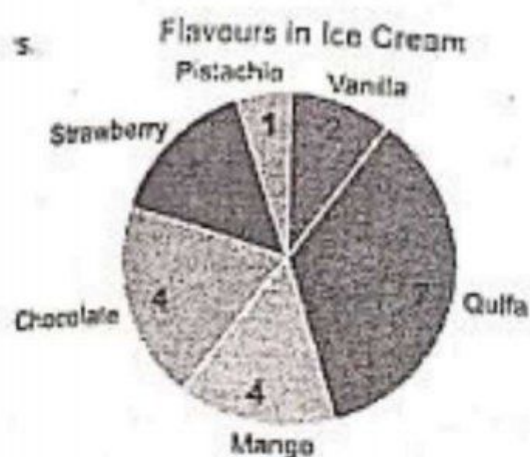
(c) In which two hours were same number of cupcakes sold? What was their numbers?

Sol: In 2nd and 5th hour the same number of cupcakes were sold. Which are 15 Ans

(d) if Ibrahim sold 92 cakes in total, how many cakes were sold in the first hour?

Sol: 8 cupcakes were sold in the 1st year.

Q5. Arham asked 20 members of his family about their favourite flavors of ice cream. Arham prepared a pie chart based on the answers given by all the family members.



(a) How many people like vanilla ice cream?

Sol: 2 people Ans

(b) Which flavor is liked the most?

Sol: Qulfa Ans

(c) Which flavor is liked by the same number of people and how many?

Sol: Chocolate and mango were liked by the same number of people and numbers of people are 4 Ans.

(d) How much less are the number of people preferring pistachio ice cream than the number of people preferring qulfa ice cream?

Sol: $7 - 1 = 6$

6 people preferring Qulfa icecream than pistachio icecream. Ans

(e) There are 20 family members in total while people preferring chocolate ice cream are 4. How will you show this number as a fraction?

Sol: total number of People = 20

People what like chocolate = 4

Required fraction = $\frac{4}{20}$

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