v

Solution of Mathematics

Class 4

Unit 1

Exercise 1A

1. **Make a place value chart with five places. Enter in it the digits of the numbers given below.**

(a)

T.Th	Th	H	T	O
6	5	4	9	4

(b)

T.Th	Th	H	T	O
5	1	3	6	2

(c)

T.Th	Th	H	T	O
9	0	8	0	0

(d)

T.Th	Th	H	T	O
8	0	0	5	2

(e)

T.Th	Th	H	T	O
4	6	0	1	7

(f)

T.Th	Th	H	T	O
3	3	4	3	2

2. **Read the numbers below written in the place value chart below. Write them in words.**
   - **a)** Two lac eighty three thousand and fifty six
   - **b)** Five lac thirty seven thousand and six hundred and forty five
   - **c)** Four lac ninety eight thousand six hundred and ninety six
3. **Write in expanded form**
   - **(a)** 12000 + 900 + 50 + 0
   - **(b)** 3000 + 500 + 20 + 9
   - **(c)** 100 + 20
   - **(d)** 25000 + 80
   - **(e)** 89000 + 60 + 4
   - **(f)** 99000 + 100 + 4
4. **Write each of the following numbers in figure:**
   - **(a)** 15,512
   - **(b)** 359,219
   - **(c)** 5,053
   - **(d)** 812
   - **(e)** 348,102
   - **(f)** 364,926
5. **Write the number:**
   - **(a)** 5343
   - **(b)** 35,227
   - **(c)** 54,205
   - **(d)** 25,394
   - **(e)** 63,107
   - **(f)** 82,036
6. **Write the place of:**
   - **(a)** Hundreds
   - **(b)** Hundreds
   - **(c)** Thousands
   - **(d)** Hundreds
7. **Find the value of:**
   - **(a)** 2 Th
   - **(b)** 5 H
   - **(c)** 2 Tens
   - **(d)** 4 Th
   - **(e)** 0 H
   - **(f)** 8 ones
   - **(g)** 7 Th

(h) 2 Th

8. Identify the number in which the value of 4 is 4,000:

a) 46,290
b) 24,300
c) 46,000
d) 94,624
e) 46,521

9. Can we write numbers in words:

a) Forty eight thousand seven hundred and thirty six
b) Twenty four thousand three hundred ninety nine
c) Thirty one thousand and seventeen
d) Seventy four thousand five hundred and eighty
e) Ninety eight thousand four hundred and thirty four
f) Eighty five thousand five hundred and fifty five
g) Twenty six thousand eight hundred and forty five
h) Ninety three thousand nine hundred and seventy
i) Fifty three thousand one hundred and twenty five
j) Ninety eight thousand nine hundred and ninety nine
k) Sixty five thousand and fifty
l) Eighty two thousand and hundred

Exercise 1B

1. Fill in the blanks.

a) >
b) >
c) <
d) >
e) <
f) <
g) =

2. Find and write the greatest number:

a) 5,320
b) 95,714
c) 70,621

3. Find the smallest number:

a) 21,951
b) 30,172
c) 18,750
d) 21,768

4. Arrange the following in increasing border:

a) 1,025 1,517 2,091 3,610 61,935
b) 351 11,678 12,500 21,015 96,135
c) 18,905 21,519 56,827 75,861 86,219
d) 19,007 26,871 36,572 45,341 47,805

5. Arrange the following in decrease

a) 62,519 26,501 25,009 9,165 653
b) 85,371 56,785 43,519 25,017 10,009
c) 81,526 71,076 54,839 28,263 23,245
d) 91,730 91,703 46,300 35,725 293

v

Exercise 1C

1. **Add the following.**

a.

15329
+11276
26605

b.

70193
+25684
95877

c.

15025
+33869
48894

d.

8542
+32790
41332

e.

52579
+13908
66487

f.

25421
+43789
69210

g.

85126
+34196
119322

h.

72053
+26987
99040

2. **Solve the following.**

a.

1029
+3895
4924

b.

3095
+195
3290

c.

11275
+45862
57137

d.

33215
+42970
76185

e.

62954
+17890
80844

f.

42507

v

+2319
44826

g.

21523
+43972
65495

h.

10297
+35142
45439

3. Solve the following problems:

a.

30060
+29850
59910

b.

14325
+13292
27617

c.

21540
+12820
34360

d.

12150
14120
+19670
45940

e.

1052
2198
+3581
6831

f.

12172
12509
+31312
55993

g.

7520
639
+9201
17360

Exercise 1D

1. Subtract:

a.

4524
-2465
2059

b.

7351
-2694
4657

c.

3015
-1753
1262

d.

43547
-41089
2458

e.

44000
-25127
18873

v

f.

63050
-15064
27986

g.

94378
-42649
51729

h.

46532
-22473
24059

i.

93005
-61980
31025

2. Find the difference:

a)

50000
-23561
26439

b)

4019
-2513
1506

c)

61958
-43175
18783

3. Solve the following problems:

a)

17525
-13281
4244

b)

79540
-43550
35990

c)

14506
-9580
4926

d)

17815
-1498
16317

e)

64305
-12543
51762

f)

8315
+2473
10788
21735
-10788
10947

Exercise 1E

1. Solve the following numbers.

a)

2463
×23

v

56649

b)

4333 ×11
47663

c)

5284 ×18
95112

d)

3618 ×27
97686

e)

2350 ×30
70500

f)

1175 ×80
94000

g)

6101 ×15
91515

h)

1098 ×23
25254

i)

1813 ×28
50764

j)

5432 ×19
103208

2.

1842 ×25
45050

3.

2320 ×49
113680

4.

2138 ×3
6414

5.

3659 ×27
98793

Exercise 1F

1. **Divide and find the quotient:**

a)

```
 1 7  2
2| 3  0 4
 - 2
   1
 - 1
     0
   - 0
     0 4
     4
   - 4
     0
```

v

b)

```
  69
1|----
8|1352
 - 8
  ---
   55
  -48
  ---
    72
   -72
   ---
     0
```

c)

```
   386
  ----
6|2316
 -18
  ---
   51
  -48
  ---
    36
   -36
   ---
     0
```

d)

```
  71
2|----
6|7626
 -6
  ---
   16
  -12
  ---
    42
   -42
   ---
     06
    - 6
    ---
      0
```

e)

```
  57
4|----
6|2742
 -24
  ---
   34
  -30
  ---
    42
   -42
   ---
     0
```

f)

```
  2169
4|----
4|8676
 -8
  ---
   06
  - 4
  ---
    27
   -24
   ---
     36
    -36
    ---
      0
```

g)

```
  81
6|----
8|5448
 -48
  ---
   64
  -64
  ---
    08
   - 8
   ---
     0
```

h)

v

```
   800
7 | 5600
  -56
    000
```

i)

```
  20
5 ----
8 | 4160
  -40
    16
   -16
     0
```

j)

```
  334
1 ----
6 | 8004
  -6
   20
  -18
    20
   -18
     24
    -24
      0
```

k)

```
  24
5 ----
9 | 4716
  -45
    21
   -18
     36
```

```
    -36
      0
```

l)

```
  1705
4 ----
4 | 6820
  -4
   28
  -28
    020
   - 20
      0
```

2. Find the quotient and remainder:

a…

```
  1780
2 ----
2 | 3561
  -2
   15
  -14
    16
   -16
     01
```

b.

```
   1374
3 ----
3 | 4123
  -3
   11
  - 9
    22
   -21
     13
```

v

```
  -12
   1
```

c.

```
  1661
5|8305
 -5
  33
 -30
   30
  -30
    05
   - 5
     0
```

d.

```
 279
7|1954
 -14
   55
  -49
    64
   -63
     1
```

e.

```
 881
8|7050
 -64
   65
  -64
    10
   - 8
     2
```

f.

```
   972
9|8754
 -81
   65
  -63
    24
   -18
     6
```

h.

```
  54
6
5|3271
 -30
   27
  -25
    21
   -20
     1
```

i.

```
   877
4|3510
 -32
   31
  -28
    30
   -28
     2
```

j.

v

j..

```
  8 5 4
6 | 5 1 2 8
  - 4 8
    3 2
  - 3 0
      2 8
    - 2 4
        4
```

3. Fill in the blanks

- **a)** 25
- **b)** 1
- **c)** 39
- **d)** 1
- **e)** 1
- **f)** 55
- **g)** 0
- **h)** 1

Exercise 1G

1. Find the quotient and remainder:

a)

```
  4 2
12 | 5 0 4
   - 4 8
     2 4
   - 2 4
       0
```

Quotient = 42

Remainder = 0

b)

```
  8 7
16 | 1 3 9 2
   - 1 2 8
     1 1 2
   - 1 1 2
       0
```

Quotient = 87

Remainder =0

c)

```
    9 0
15 | 1 3 5 5
   - 1 3 5
       0 5
```

Quotient = 90

Remainder = 5

d)

```
  6 2 5
13 | 8 1 2 7
   - 7 8
     3 2
   - 2 6
       6 7
```

v

```
  -65
   2
```

Quotient = 625

Remainder = 2

e)

```
  455
21|9572
  -84
   117
  -105
    122
   -105
     17
```

Quotient = 455

Remainder = 17

f)

```
 105
32|3360
  -32
    160
   -160
      0
```

Quotient = 105

Remainder = 0

g)

```
   21
48|1027
  -96
    67
   -48
    19
```

Quotient = 21

Remainder = 19

h)

```
  24
63|1524
  -126
    264
   -252
     12
```

Quotient = 24

Remainder = 12

2. Solve the following.

a)

```
   10
42|452
  -42
    32
```

b)

```
    200
25|5000
  -50
    000
```

c)

v

```
   75
24|1800
 -168
  120
 -120
    0
```

d)

```
  56
2
7|1792
 -14
  39
 -35
  42
 -42
   0
```

e)

```
 19
4|76
 -4
  36
 -36
   0
```

The price of 15 kg sugar is:

19
×15
285

f)

124
×25
3100

```
   63
25|1575
 -150
   75
  -75
    0
```

g)

```
  240
25|6000
 -50
  100
 -100
    00
```

Exercise 1H

1. **Observe the given pattern and write next two numbers**
   - **a)** 31 , 35
   - **b)** 600 , 550
   - **c)** 480 , 460
   - **d)** 118 , 121
   - **e)** 88 , 86
   - **f)** 860 , 850

Unit 02

Exercise 2A

v

1. **Circle the prime numbers**
   1 , 11 , 29 , 47 , 57 , 67 , 83
2. **Circle the composite numbers**
   8 , 18 , 35 , 36 , 49 , 66 ,69
3. **Write the factors**
   - **a)** 1 , 5 , 25 (composite)
   - **b)** 1 , 11 (prime)
   - **c)** 1 , 2 (prime)
   - **d)** 1 , 2 , 3 , 5 , 6 , 10 , 15 , 30 (composite)
   - **e)** 1 , 2 , 3 , 4 , 6 , 8 , 12 , 16 , 24 , 48 (composite)
   - **f)** 1 , 17 (prime)
   - **g)** 1 , 3 , 11 (composite)
4. **Circle the composite number**
   36 , 21 , 28 , 44
5. **Circle the correct option**
   - **a)** Prime number because it has only one factor
   - **b)** Composite number because it has more than two factors
   - **c)** Composite number because it has more than two factors

Exercise 2B

1. **Find the factors of given numbers**
   - **a)** 1 , 2 , 3 , 6 , 9 , 18
   - **b)** 1 , 6 , 2 , 3
   - **c)** 1 , 14 , 2 , 7
   - **d)** 1 , 12 , 2 , 6 , 3 , 4
2. **Write all the factors of each pair.**
   - **a)** The 6 factors of 45 are:

     1, 3, 5, 9, 15, 45
   - **b)** The 4 factors of 15 are:

     1, 3, 5, 15
   - **c)** The 4 factors of 34 are:

     1, 2, 17, 34
3. **Find the factors of numbers from 21 to 50.**

numbers	Factors
21	1, 3, 7 , 21
25	1 , 5 , 25
27	1 , 3 , 9 , 27
31	1 , 31
34	1 , 2 , 17 , 34
36	1 , 2 , 3 , 4 , 6 , 9
38	1 , 2 , 38
41	1 , 41
44	1 , 2 , 4 , 11 , 22
50	1 , 2 , 5 , 10 , 25

Exercise 2C

1. **Write the missing number in each set of multiple**
   a) **3** ,6 , **9** , **12** , **15** , **18 , 21** , 24 , **27 , 30**
   b) **4 , 8** , 12 , **16 , 20 , 24 , 28** , 36
   c) **5 , 10** , 15 , **20** , 25 , **30 , 35 , 40** , **45**
   d) **6** , 12 , **18 , 24 , 30 , 36** , 42 , **48** , **54**
   e) 7 , **14** , 21 , **28 , 35 , 42 , 49 , 56 , 63**
   f) **8** , 16 , **24 , 32 , 40 , 48** , 56 , **64 , 72**
   g) **9 , 18 , 27** , 36 , **45 , 54 , 63 , 72 , 81**

2. **Write the missing number**
   a) 20 , 15 , 40 , 25
   b) 24 , 15 , 30 , 9
3. **Who am I?**
   a) Seventh multiple of number 2= 2×7 = 14
   b) Ninth multiple of nine=9×9=81
   c) Eight multiple of number 7= 8×7 = 56
   d) Tenth multiple of number 4= 10×4 = 40
   e) Fifth multiple of number 5= 5×5 = 25
   f) Tenth multiple of number 4= 10×4 =40
4. **Tick the true statement and cross the false statement**
   a) true
   b) true
   c) false
   d) false
   e) true
   f) false
   g) false

Differentiate between factors and multiples

a) **Nu**mbers that's are factors of 30
5 , 2 , 10 , 6 , 3
b) Numbers that are multiples of 7
14 , 21 , 49 , 63

Exercise 2D

4. **Tick the correct option**
a) Yes , no
b) No , no
c) Yes , yes
d) No , no
e) No , yes
f) Yes , no
g) Yes , yes

5. **Do as directed**
   a) 8 , 10 , 12 , 14 , 16 , 18
   b) 18 , 24 , 30 , 36 , 42 , 48
   c) 10
   d) 2 , 3
   e) 24 , 28 , 32 , 36
   f) 1 , 2 , 3 , 4, 6 , 12
   g) 4 , 12

Exercise 2E

1. **Write the prime factors of the numbers**
   a) 20 = 5 × 2 × 2
   b) 28 = 2 x 2 x 7
   c) 30 = 2 x 3 x 5

d) 81 = 3 x 3 x 3 x 3
e) 56 = 2 x 2 x 2 x 7
f) 72 = 2 x 2 x 2 x 3 x 3

2. **Using factor method , determine the prime factors of:**
   a) 70 = 2 x 5 x 7
   b) 11 = 11 is a prime number
   c) 99 = 3 x 3 x 11
   d) 44 = 2 x 2 x 11
   e) 62 = 2 x 2 x 11
   f) 76 = 2 x 2 x 19
   g) 63 = 3 x 3 x 7
   h) 36 = 2 x 2 x 3 x 3
   i) 48 = 2 x 2 x 2 x 2 x 3
   j) 64 = 2 x 2 x 2 x 2 x 2 x 2
   k) 84 = 2 x 2 x 3 x 7
   l) 77 = 2 x 2 x 3 x 7
   m) 46 = 2 x 23
   n) 80 = 2 x 2 x 2 x 2 x 5
   o) 68 = 2 x 2 x 17
   p) 54 = 2 x 3 x 3 x 3
   q) 96 = 2 x 2 x 2 x 2 x 2 x 3
   r) 2 = 2 is a prime number.
   s) 55 = 5 x 11
   t) 42 = 5 x 11

3. **Following are the prime factorization of certain numbers. Calculate the number.**
   a) 3×5×11 = 165
   b) 2×5×7 = 70
   c) 2× 3×13 = 78
   d) 2×3×3×7 = 126
   e) 3×5×5 = 75
   f) 2×3×7 = 42
   g) 3×3×3×3 = 81
   h) 3×2×2×5 = 60
   i) 2×2×2×2×2 = 32
   j) 2×2×3×3 = 36

Exercise 2F

1. **Find the common factor**

a) The factors of 18 are:
1, 2, 3, 6, 9, 18

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The common factors are:
1, 2, 3, 6

b) The factors of 6 are:
1, 2, 3, 6

The factors of 8 are:
1, 2, 4, 8

The common factors are:
1, 2

c) The factors of 25 are:
1, 5, 25

The factors of 45 are:
1, 3, 5, 9, 15, 45

The common factors are:
1, 5

d) The factors of 16 are:
1, 2, 4, 8, 16

The factors of 20 are:
1, 2, 4, 5, 10, 20

The common factors are:
1, 2, 4

e) The factors of 36 are:
1, 2, 3, 4, 6, 9, 12, 18, 36

The factors of 54 are:
1, 2, 3, 6, 9, 18, 27, 54

The common factors are:
1, 2, 3, 6, 9, 18

f) The factors of 27 are:
1, 3, 9, 27

The factors of 63 are:
1, 3, 7, 9, 21, 63

The common factors are:
1, 3, 9

2. Find the common factors.

a) The factors of 4 are:
1, 2, 4

The factors of 8 are:
1, 2, 4, 8

The common factors are:
1, 2, 4

b) The factors of 12 are:
1, 2, 3, 4, 6, 12

The factors of 20 are:
1, 2, 4, 5, 10, 20

The common factors are:
1, 2, 4

c) The factors of 3 are:
1, 3

The factors of 21 are:
1, 3, 7, 21

The common factors are:
1, 3

d) The factors of 6 are:
1, 2, 3, 6

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The common factors are:
1, 2, 3, 6

3. Find the common factors of each sets.

a) The factors of 4 are:
1, 2, 4

The factors of 18 are:
1, 2, 3, 6, 9, 18

The factors of 32 are:
1, 2, 4, 8, 16, 32

The common factors are:
1, 2

b) The factors of 5 are:
1, 5

The factors of 15 are:
1, 3, 5, 15

The factors of 45 are:
1, 3, 5, 9, 15, 45

The common factors are:
1, 5

c) The factors of 18 are:
1, 2, 3, 6, 9, 18

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The factors of 48 are:
1, 2, 3, 4, 6, 8, 12, 16, 24, 48

The common factors are:
1, 2, 3, 6

d) The factors of 14 are:
1, 2, 7, 14

The factors of 21 are:
1, 3, 7, 21

The factors of 63 are:
1, 3, 7, 9, 21, 63

The common factors are:
1, 7

e) The factors of 6 are:
1, 2, 3, 6

The factors of 15 are:
1, 3, 5, 15

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

The common factors are:
1, 3

4. What is the greatest common factor of the following numbers of sets.

a) The factors of 9 are:
1, 3, 9

The factors of 15 are:
1, 3, 5, 15

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The common factors are:
1, 3

The Greatest Common Factor:
GCF = 3

b) The factors of 8 are:
1, 2, 4, 8

The factors of 16 are:
1, 2, 4, 8, 16

The factors of 20 are:
1, 2, 4, 5, 10, 20

The common factors are:
1, 2, 4

The Greatest Common Factor:
GCF = 4

c) The factors of 18 are:
1, 2, 3, 6, 9, 18

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The factors of 46 are:
1, 2, 23, 46

The common factors are:
1, 2

The Greatest Common Factor:
GCF = 2

d) The factors of 10 are:
1, 2, 5, 10

The factors of 15 are:
1, 3, 5, 15

The factors of 20 are:
1, 2, 4, 5, 10, 20

The common factors are:
1, 5

The Greatest Common Factor:
GCF = 5

e) The factors of 6 are:
1, 2, 3, 6

The factors of 18 are:
1, 2, 3, 6, 9, 18

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The common factors are:
1, 2, 3, 6

The Greatest Common Factor:
GCF = 6

f) The factors of 7 are:
1, 7

The factors of 21 are:
1, 3, 7, 21

The factors of 35 are:
1, 5, 7, 35

The common factors are:
1, 7

The Greatest Common Factor:
GCF = 7

g) The factors of 12 are:
1, 2, 3, 4, 6, 12

The factors of 20 are:
1, 2, 4, 5, 10, 20

The factors of 24 are:
1, 2, 3, 4, 6, 8, 12, 24

The common factors are:
1, 2, 4

The Greatest Common Factor:
GCF = 4

h) The factors of 8 are:
1, 2, 4, 8

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

The factors of 18 are:
1, 2, 3, 6, 9, 18

The common factors are:
1, 2

The Greatest Common Factor:
GCF = 2

i) The factors of 8 are:
1, 2, 4, 8

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

The factors of 20 are:
1, 2, 4, 5, 10, 20

The common factors are:
1, 2, 4

The Greatest Common Factor:
GCF = 4

Exercise 2G

1. Find the first three common multiples of the following

a) Multiples of 4:
4, 8, 12, 16, **20**, 24, 28

Multiples of 5:
5, 10, 15, **20**, 25, 30

20 , 40 , 60

b) Multiples of 2:
2, **4**, 6, 8

Multiples of 4:
4, 8, 12

Therefore 4 , 8 , 12

c) Multiples of 2:
2, 4, 6, 8, **10**, 12, 14

Multiples of 5:
5, **10**, 15, 20

10 , 20 , 30

d) Multiples of 2:
2, 4, **6**, 8, 10

Multiples of 3:

3, **6**, 9, 12 6 , 12 , 18

e) Multiples of 3:
3, 6, 9, **12**, 15, 18

Multiples of 4:
4, 8, **12**, 16, 20

12 , 36 , 48

f) Multiples of 4:
4, **8**, 12, 16

Multiples of 8:
8, 16, 24

8 , 16 , 24

2. Find.

a) first two common multiples of 6 and 15.

Multiples of 6:
6, 12, 18, 24, **30**, 36, 42

Multiples of 15:
15, **30**, 45, 60

30 , 60

b) First three mutliples of 4 and 10

Multiples of 4:
4, 8, 12, 16, **20**, 24, 28

Multiples of 10:
10, **20**, 30, 40

20 , 40 , 60

c) First two common multiples of 12 and 18.

Multiples of 12:
12, 24, **36**, 48, 60

Multiples of 18:
18, **36**, 54, 72

36 , 72

d) First five common multiples of 2,4 and 6.

Multiples of 2:
2, 4, 6, 8, 10, **12**, 14, 16

Multiples of 4:
4, 8, **12**, 16, 20

Multiples of 6:
6, **12**, 18, 24

12 , 24 , 60 , 108 , 120

3. Find the smallest common multiple of three numbers.

a) Multiples of 2:
2, 4, 6, 8, 10, **12**, 14, 16

Multiples of 3:
3, 6, 9, **12**, 15, 18

Multiples of 4:
4, 8, **12**, 16, 20

Therefore,

LCM(2, 3, 4) = 12

b) Multiples of 3:
3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, **105**, 108, 111

Multiples of 5:
5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, **105**, 110, 115

Multiples of 7:
7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, **105**, 112, 119

Therefore,

LCM(3, 5, 7) = 105

c) Multiples of 2:
2, 4, 6, 8, 10, **12**, 14, 16

Multiples of 4:
4, 8, **12**, 16, 20

Multiples of 6:
6, **12**, 18, 24

Therefore,

LCM(2, 4, 6) = 12

d) Multiples of 3:
3, 6, 9, 12, 15, 18, 21, **24**, 27, 30

Multiples of 4:
4, 8, 12, 16, 20, **24**, 28, 32

Multiples of 8:
8, 16, **24**, 32, 40

Therefore,

LCM(3, 4, 8) = 24

e) Multiples of 3:
3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, **63**, 66, 69

Multiples of 7:
7, 14, 21, 28, 35, 42, 49, 56, **63**, 70, 77

Multiples of 9:
9, 18, 27, 36, 45, 54, **63**, 72, 81

Therefore,

LCM(3, 7, 9) = 63

f) Multiples of 4:
4, 8, 12, 16, 20, **24**, 28, 32

Multiples of 6:
6, 12, 18, **24**, 30, 36

Multiples of 8:
8, 16, **24**, 32, 40

Therefore,

LCM(4, 6, 8) = 24

4. Fill in the blanks

a) 12 and 8
b) 3 and 4
c) 4 and 7
d) 8 and 7
e) 5 and 6

5. List out first two common multiples of the followings.

a) Multiples of 3:
3, 6, 9, **12**, 15, 18

Multiples of 4:
4, 8, **12**, 16, 20

12 , 24

b) Multiples of 6:
6, 12, 18, **24**, 30, 36

Multiples of 8:
8, 16, **24**, 32, 40

24 , 48

6. Find the least common multiple

a) Multiples of 3:
3, 6, 9, 12, 15, 18, 21, **24**, 27, 30

Multiples of 8:
8, 16, **24**, 32, 40

Therefore,

LCM(3, 8) = 24

b) Multiples of 7:
7, 14, 21, 28, 35, 42, 49, 56, **63**, 70, 77

Multiples of 9:
9, 18, 27, 36, 45, 54, **63**, 72, 81

Therefore,

LCM(7, 9) = 63

Unit 3

Exercise 3A

1. **Write whether following fractions are like or unlike.**
   - **a)** like
   - **b)** unlike
   - **c)** like
   - **d)** unlike
   - **e)** unlike
   - **f)** like
   - **g)** unlike
   - **h)** like
   - **i)** unlike
   - **j)** unlike
   - **k)** like
   - **l)** like
   - **m)** unlike
   - **n)** like
   - **o)** unlike
2. **Identify the set of unlike fractions.**
   $\frac{4}{7}, \frac{7}{9}, \frac{3}{8}$
3. **Which of the following pairs are like fractions.**
   $\frac{2}{7}, \frac{3}{7}$

Exercise 3B

1. **Compare the fractions**
   - **a)** <
   - **b)** =
   - **c)** >
   - **d)** <
   - **e)** <
   - **f)** <
   - **g)** <
   - **h)** <
   - **i)** <
   - **j)** >
   - **k)** <
   - **l)** =

Exercise 3C

1. **Simplify the fractions**
   - **a)** ½
   - **b)** $\frac{2}{8} = \frac{2^{1}}{8_{4}} = \frac{1}{4}$
   - **c)** $\frac{12}{36} = \frac{12^{1}}{36_{3}} = \frac{1}{3}$
   - **d)** $\frac{4}{20} = \frac{4^{1}}{20_{5}} = \frac{1}{5}$
   - **e)** $\frac{3}{12} = \frac{3^{1}}{12_{4}} = \frac{1}{4}$
   - **f)** $\frac{2}{6} = \frac{2^{1}}{6_{3}} = \frac{1}{3}$
   - **g)** $\frac{5}{20} = \frac{5^{1}}{20_{4}} = \frac{1}{4}$
   - **h)** $\frac{18}{30} = \frac{18^{6}}{30_{10}} = \frac{6^{3}}{10_{5}} = \frac{3}{5}$

i) $\frac{10}{20} = \frac{10^{1}}{20_{2}} = \frac{1}{2}$

j) $\frac{12}{24} = \frac{12^{1}}{24_{2}} = \frac{1}{2}$

k) $\frac{20}{30} = \frac{20^{2}}{30_{3}} = \frac{2}{3}$

l) $\frac{18}{36} = \frac{18^{1}}{36_{2}} = \frac{1}{2}$

m) $\frac{15}{20} = \frac{15^{3}}{20_{4}} = \frac{3}{4}$

n) $\frac{4}{32} = \frac{4^{1}}{32_{8}} = \frac{1}{8}$

o) $\frac{3}{6} = \frac{3^{1}}{6_{2}} = \frac{1}{2}$

p) $\frac{6}{36} = \frac{6^{1}}{36_{6}} = \frac{1}{6}$

2. Zaki has 20 apples. He ate 8 apples.

$\frac{20}{8} = \frac{20^{10}}{8_{4}} = \frac{10^{5}}{4_{2}} = \frac{5}{2}$

Exercise 3D

1. Identify the fraction

a) Unit fraction
b) Improper fraction
c) Mixed fraction
d) Proper fraction
e) Improper fraction
f) Unit fraction
g) Mixed fraction
h) Improper fraction
i) Mixed fraction
j) Unit fraction
k) Mixed fraction
l) Improper fraction

Exercise 3E

1. Convert the following improper fraction to mixed numbers.

a) $4\overline{)9}$ → $\frac{2}{8}$ → $\frac{1}{}$, $2\frac{1}{4}$

b) $5\overline{)11}$ → $\frac{2}{10}$ → $\frac{1}{}$, $2\frac{1}{5}$

c) $10\overline{)71}$ → $\frac{7}{70}$ → $\frac{1}{}$, $7\frac{1}{10}$

d) $9\overline{)82}$ → $\frac{9}{81}$ → $\frac{1}{}$, $9\frac{1}{9}$

e) $6\overline{)61}$ → $\frac{10}{60}$ → $\frac{1}{}$, $10\frac{1}{6}$

f) $7\overline{)29}$ → $\frac{4}{28}$ → $\frac{1}{}$, $4\frac{1}{7}$

v

$$5\overline{)31}\quad 6,\ \underline{30},\ 1$$

g) $6\frac{1}{5}$

$$3\overline{)7}\quad 2,\ \underline{6},\ 1$$

h) $2\frac{1}{3}$

$$6\overline{)55}\quad 9,\ \underline{54},\ 1$$

i) $9\frac{1}{6}$

$$3\overline{)13}\quad 4,\ \underline{12},\ 1$$

j) $4\frac{1}{3}$

$$7\overline{)50}\quad 7,\ \underline{49},\ 1$$

k) $7\frac{1}{7}$

$$10\overline{)21}\quad 2,\ \underline{20},\ 1$$

l) $2\frac{1}{10}$

2. Convert mixed fractions into improper fractions.

a) $3\frac{1}{3}=\frac{(3\times3)+1}{3}=\frac{9+1}{3}=\frac{10}{3}$

b) $2\frac{5}{8}=\frac{(2\times8)+5}{8}=\frac{16+5}{8}=\frac{21}{8}$

c) $2\frac{2}{4}=\frac{(2\times4)+2}{4}=\frac{8+2}{4}=\frac{10^{5}}{4_{2}}=\frac{5}{2}$

d) $1\frac{3}{6}=\frac{(1\times6)+3}{6}=\frac{6+3}{6}=\frac{9^{3}}{6_{2}}=\frac{3}{2}$

e) $2\frac{4}{5}=\frac{(2\times5)+4}{5}=\frac{10+4}{5}=\frac{14}{5}$

f) $1\frac{1}{6}=\frac{(1\times6)+1}{6}=\frac{6+1}{6}=\frac{7}{6}$

g) $2\frac{1}{2}=\frac{(2\times2)+1}{2}=\frac{4+1}{2}=\frac{5}{2}$

h) $1\frac{3}{4}=\frac{(1\times4)+3}{4}=\frac{4+3}{4}=\frac{7}{4}$

3. $1\frac{2}{3}=\frac{(1\times3)+2}{3}=\frac{3+2}{3}=\frac{5}{3}$

4.
$$3\overline{)9}\quad 2,\ \underline{6},\ 3$$
$2\frac{3}{3}$

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

a) Ascending $(\frac{1}{3},\frac{2}{3},\frac{4}{3})$

Descending $(\frac{4}{3},\ ,\frac{2}{3},\ \frac{1}{3})$

b) Ascending $(\frac{3}{9},\ ,\frac{2}{5}\ ,\ ,\frac{4}{7})$

Descending $(\frac{4}{7}\ ,\ \frac{2}{5}\ ,\frac{3}{9})$

c) Ascending $(\frac{2}{3}\ ,\ \frac{5}{6},\ \frac{3}{4}\ )$

Descending $(\frac{3}{4}\ ,\ \frac{5}{6}\ ,\ \frac{2}{3})$

v

$$1+\frac{1}{2}=\frac{2+1}{2}=\frac{3}{2}$$

6. $2\overline{)3}$ 1 remainder 1, so $1\frac{1}{2}$

7. $2\frac{1}{2}=\frac{(2\times 2)+1}{2}=\frac{4+1}{2}=\frac{5}{2}$

Exercise 3F

1. Solve the given fraction.

a) $\frac{1}{4}+\frac{5}{4}=\frac{1+5}{4}=\frac{6}{4}=\frac{3}{2}$

b) $\frac{3}{8}+\frac{5}{8}=\frac{3+5}{8}=\frac{8}{8}=1$

c) $\frac{9}{10}+\frac{7}{10}=\frac{9+7}{10}=\frac{16^{8}}{10_{5}}=\frac{8}{5}$

d) $\frac{3}{9}+\frac{8}{9}=\frac{3+8}{9}=\frac{11}{9}$

e) $\frac{3}{5}+\frac{1}{5}=\frac{3+1}{5}=\frac{4}{5}$

f) $\frac{1}{6}+\frac{4}{6}=\frac{1+4}{6}=\frac{5}{6}$

g) $\frac{6}{11}+\frac{3}{11}=\frac{6+3}{11}=\frac{9}{11}$

h) $\frac{3}{10}+\frac{7}{10}=\frac{3+7}{10}=\frac{10}{10}=1$

i) $\frac{6}{25}+\frac{11}{25}=\frac{6+11}{25}=\frac{17}{25}$

j) $\frac{11}{20}+\frac{3}{20}=\frac{11+3}{20}=\frac{14^{7}}{20_{10}}=\frac{7}{10}$

k) $\frac{4}{15}+\frac{4}{15}=\frac{4+4}{15}=\frac{8}{15}$

l) $\frac{5}{13}+\frac{6}{13}=\frac{5+6}{13}=\frac{11}{13}$

2. Add up the fractions.

a) $\frac{3}{10}+\frac{1}{10}=\frac{3+1}{10}=\frac{4^{2}}{10_{5}}=\frac{2}{5}$

b) $\frac{5}{12}+\frac{7}{12}=\frac{5+7}{12}=\frac{12}{12}=1$

c) $\frac{3}{10}+\frac{3}{10}=\frac{3+3}{10}=\frac{9}{10}$

d) $\frac{8}{15}+\frac{4}{15}=\frac{8+4}{15}=\frac{12^{4}}{15_{5}}=\frac{4}{5}$

e) $\frac{4}{13}+\frac{8}{13}=\frac{4+8}{13}=\frac{12}{13}$

f) $\frac{13}{21}+\frac{8}{21}=\frac{13+8}{21}=\frac{21}{21}=1$

g) $\frac{11}{30}+\frac{17}{30}=\frac{11+17}{30}=\frac{28^{14}}{30_{15}}=\frac{14}{15}$

h) $\frac{23}{40}+\frac{11}{40}=\frac{23+11}{40}=\frac{34^{17}}{40_{20}}=\frac{17}{20}$

Exercise 3G

1. **Subtract the given fractions.**

a) $\frac{9}{10}-\frac{7}{10}=\frac{9-7}{10}=\frac{3}{10}$

b) $\frac{6}{8}-\frac{3}{8}=\frac{6-3}{8}=\frac{3}{8}$

c) $\frac{4}{7}-\frac{2}{7}=\frac{4-2}{7}=\frac{2}{7}$

d) $\frac{3}{4}-\frac{1}{4}=\frac{3-1}{4}=\frac{2^{1}}{4_{2}}=\frac{1}{2}$

e) $\frac{6}{10}-\frac{5}{10}=\frac{6-5}{10}=\frac{1}{10}$

f) $\frac{7}{11}-\frac{2}{11}=\frac{7-2}{11}=\frac{5}{11}$

g) $\frac{10}{12}-\frac{4}{12}=\frac{10-4}{12}=\frac{6^{1}}{12_{2}}=\frac{1}{2}$

h) $\frac{4}{6}-\frac{3}{6}=\frac{4-3}{6}=\frac{1}{6}$

i) $\frac{8}{9}-\frac{7}{9}=\frac{8-7}{9}=\frac{1}{9}$

j) $\frac{4}{5}-\frac{3}{5}=\frac{4-3}{5}=\frac{1}{5}$

k) $\frac{7}{8}-\frac{6}{8}=\frac{7-6}{8}=\frac{1}{8}$

l) $\frac{2}{3}-\frac{1}{3}=\frac{2-1}{3}=\frac{1}{3}$

m) $\frac{4}{10}-\frac{3}{10}=\frac{4-3}{10}=\frac{1}{10}$

n) $\frac{8}{12}-\frac{5}{12}=\frac{8-5}{12}=\frac{3^{1}}{12_{4}}=\frac{1}{4}$

o) $\frac{5}{6}-\frac{2}{6}=\frac{5-2}{6}=\frac{3^{1}}{6_{2}}=\frac{1}{2}$

p) $\frac{9}{11}-\frac{2}{11}=\frac{9-2}{11}=\frac{7}{11}$

2. $\frac{9}{11}-\frac{6}{11}=\frac{9-6}{11}=\frac{3}{11}$

Sheraz's share is more than Ali's by $\frac{3}{11}$.

Exercise 3H

1. $\frac{2}{7}+\frac{3}{7}=\frac{2+3}{7}=\frac{5}{7}$

2. $\frac{3}{14}+\frac{5}{14}=\frac{3+5}{14}=\frac{8}{14}$

3. $\frac{3}{13}+\frac{5}{13}=\frac{3+5}{13}=\frac{8}{13}$

4. $\frac{2}{10}+\frac{1}{10}=\frac{2+1}{10}=\frac{3}{10}$

5. $\frac{7}{14}-\frac{2}{14}=\frac{7-2}{14}=\frac{5}{14}$, doing more work on Tuesday.

6. $\frac{6}{10}-\frac{3}{10}=\frac{6-3}{10}=\frac{3}{10}$, more walk on Tuesday.

7. $\frac{3}{9}-\frac{2}{9}=\frac{3-2}{9}=\frac{1}{9}$, kamal distributed more packets.

8. $\frac{4}{8}=\frac{4^{1}}{8_{2}}=\frac{1}{2}$

$\frac{3}{9}=\frac{3^{1}}{9_{3}}=\frac{1}{3}$

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

Exercise 3I

1. Use repeated addition to find the solution.

a) $3\times\frac{1}{4}=\frac{1}{4}+\frac{1}{4}+\frac{1}{4}$

$\frac{1+1+1}{4}=\frac{3}{4}$

b) $8\times\frac{1}{7}=\frac{1}{7}+\frac{1}{7}+\frac{1}{7}+\frac{1}{7}+\frac{1}{7}+\frac{1}{7}+\frac{1}{7}+\frac{1}{7}$

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

c) $3\times\frac{3}{5}=\frac{3}{5}+\frac{3}{5}+\frac{3}{5}$

$\frac{3+3+3}{5}=\frac{9}{5}$

d) $5\times\frac{7}{8}=\frac{7}{8}+\frac{7}{8}+\frac{7}{8}+\frac{7}{8}+\frac{7}{8}$

$\frac{7+7+7+7+7}{8}=\frac{35}{8}$

2. Multiply

a) $4\times\frac{2}{5}=\frac{8}{5}$

b) $3\times\frac{7}{11}=\frac{21}{11}$

c) $5\times\frac{8}{9}=\frac{40}{9}$

d) $10\times\frac{2}{9}=\frac{20}{9}$

e) $7\times\frac{9}{21}=\frac{\cancel{63}^{3}}{\cancel{21}_{1}}=3$

f) $15\times\frac{7}{12}=\frac{\cancel{105}^{35}}{\cancel{12}_{4}}=\frac{35}{4}$

g) $21\times\frac{5}{6}=\frac{\cancel{105}^{35}}{\cancel{6}_{2}}=\frac{35}{2}$

h) $25\times\frac{7}{15}=\frac{\cancel{175}^{35}}{\cancel{15}_{3}}=\frac{35}{3}$

i) $35\times\frac{2}{7}=\frac{\cancel{70}^{10}}{\cancel{7}_{1}}=10$

j) $21\times\frac{6}{7}=\frac{\cancel{126}^{18}}{\cancel{7}_{1}}=18$

k) $10\times\frac{8}{15}=\frac{\cancel{80}^{16}}{\cancel{15}_{3}}=\frac{16}{3}$

l) $26\times\frac{7}{13}=\frac{\cancel{182}^{14}}{\cancel{13}_{1}}=14$

3. Multiply

a) $\frac{2}{5}\times\frac{3}{7}=\frac{2\times3}{5\times7}=\frac{6}{35}$

b) $\frac{1}{6}\times\frac{1}{5}=\frac{1\times1}{6\times5}=\frac{1}{30}$

c) $\frac{2}{7}\times\frac{5}{6}=\frac{2\times5}{7\times6}=\frac{\cancel{10}^{5}}{\cancel{42}_{21}}=\frac{5}{21}$

d) $\frac{7}{1}\times\frac{3}{4}=\frac{7\times3}{1\times4}=\frac{21}{4}$

e) $\frac{4}{11}\times\frac{5}{9}=\frac{4\times5}{11\times9}=\frac{20}{99}$

f) $\frac{1}{4}\times\frac{3}{7}\times\frac{9}{10}=\frac{1\times3\times9}{4\times7\times10}=\frac{27}{280}$

g) $\frac{1}{5}\times\frac{1}{2}\times\frac{3}{7}=\frac{1\times1\times3}{5\times2\times7}=\frac{3}{70}$

h) $\frac{2}{3}\times\frac{4}{9}\times\frac{5}{7}=\frac{2\times4\times5}{3\times9\times7}=\frac{40}{189}$

4. Find the product

a) $2\frac{3}{7}\times\frac{5}{6}=\frac{(2\times7)+3}{7}\times\frac{5}{6}=\frac{14+3}{7}\times\frac{5}{6}$

$\frac{17}{7}\times\frac{5}{6}=\frac{17\times5}{7\times6}=\frac{85}{42}$

b) $4\frac{4}{5}\times\frac{15}{16}=\frac{(4\times5)+4}{5}\times\frac{15}{16}=\frac{20+4}{5}\times\frac{15}{16}$

$\frac{\cancel{24}^{3}}{\cancel{5}_{1}}\times\frac{\cancel{15}^{3}}{\cancel{16}_{2}}=\frac{3\times3}{2}=\frac{9}{2}$

c) $3\frac{7}{9}\times1\frac{21}{35}=\frac{(3\times9)+7}{9}\times\frac{(1\times35)+21}{35}=\frac{27+7}{9}\times\frac{35+21}{35}$

$\frac{34}{9}\times\frac{56}{35}=\frac{34\times56}{9\times35}=\frac{1904}{315}$

d) $2\frac{5}{8}\times2\frac{4}{9}=\frac{(2\times8)+5}{8}\times\frac{(2\times9)+4}{9}=\frac{16+5}{8}\times\frac{18+4}{9}$

$\frac{\cancel{21}^{7}}{\cancel{8}_{4}}\times\frac{\cancel{22}^{11}}{\cancel{9}_{3}}=\frac{7\times11}{4\times3}=\frac{77}{12}$

e) $1\frac{7}{15}\times 2\frac{10}{11}=\frac{(1\times 15)+7}{15}\times\frac{(2\times 11)+10}{11}=\frac{15+7}{15}\times\frac{22+10}{11}$

$\frac{22^{2}}{15}\times\frac{32}{11_{1}}=\frac{2\times 32}{15\times 1}=\frac{64}{15}$

Exercise 3J

1. Solve the following.

a) $\frac{6}{20}\div 2=\frac{6^{3}}{20}\times\frac{1}{2_{1}}=\frac{3}{20}$

b) $\frac{1}{10}\div 2=\frac{1}{10}\times\frac{1}{2}=\frac{1}{20}$

c) $\frac{10}{35}\div 9=\frac{10}{35}\times\frac{1}{9}=\frac{10^{2}}{315_{63}}=\frac{2}{63}$

d) $\frac{12}{16}\div 7=\frac{12}{16}\times\frac{1}{7}=\frac{12}{112}$

e) $\frac{3}{15}\div 5=\frac{3}{15}\times\frac{1}{5}=\frac{3}{75}=\frac{1}{25}$

f) $\frac{9}{24}\div 3=\frac{9^{3}}{24}\times\frac{1}{3_{1}}=\frac{3^{1}}{24_{8}}=\frac{1}{8}$

g) $\frac{2}{4}\div 3=\frac{2}{4}\times\frac{1}{3}=\frac{2}{12}=\frac{1}{6}$

h) $\frac{1}{5}\div 8=\frac{1}{5}\times\frac{1}{8}=\frac{1}{40}$

i) $\frac{1}{6}\div 6=\frac{1}{6}\times\frac{1}{6}=\frac{1}{36}$

j) $\frac{1}{8}\div 6=\frac{1}{8}\times\frac{1}{6}=\frac{1}{48}$

k) $\frac{1}{8}\div 5=\frac{1}{8}\times\frac{1}{5}=\frac{1}{40}$

l) $\frac{2}{10}\div 9=\frac{2^{1}}{10_{5}}\times\frac{1}{9}=\frac{1}{5\times 9}=\frac{1}{45}$

m) $\frac{1}{2}\div 7=\frac{1}{2}\times\frac{1}{7}=\frac{1}{14}$

n) $\frac{1}{4}\div 2=\frac{1}{4}\times\frac{1}{2}=\frac{1}{8}$

o) $\frac{7}{12}\div 8=\frac{7}{12}\times\frac{1}{8}=\frac{7}{96}$

p) $\frac{1}{5}\div 7=\frac{1}{5}\times\frac{1}{7}=\frac{1}{35}$

q) $\frac{1}{2}\div 4=\frac{1}{2}\times\frac{1}{4}=\frac{1}{8}$

r) $\frac{9}{10}\div 3=\frac{9}{10}\times\frac{1}{3}=\frac{9^{3}}{30_{10}}=\frac{3}{10}$

2. Find the quotient

a) $1\frac{1}{8} \div 3 = \frac{9}{8} \times \frac{1}{3} = \frac{9}{24} = \frac{3}{8}$

b) $2\frac{3}{5} \div 7 = \frac{13}{5} \times \frac{1}{7} = \frac{13}{35}$

c) $3\frac{2}{9} \div 9 = \frac{29}{9} \times \frac{1}{9} = \frac{29}{81}$

d) $5\frac{1}{4} \div 8 = \frac{21}{4} \times \frac{1}{8} = \frac{21}{32}$

e) $6\frac{1}{12} \div 10 = \frac{73}{12} \times \frac{1}{10} = \frac{73}{120}$

f) $1\frac{5}{8} \div 2 = \frac{13}{8} \times \frac{1}{2} = \frac{13}{16}$

g) $4\frac{5}{10} \div 6 = \frac{45}{10} \times \frac{1}{6} = \frac{45^{3}}{60_{4}} = \frac{3}{4}$

h) $2\frac{5}{6} \div 5 = \frac{17}{6} \times \frac{1}{5} = \frac{17}{30}$

i) $2\frac{1}{4} \div 4 = \frac{9}{4} \times \frac{1}{4} = \frac{9}{16}$

3. $\frac{3}{5} \div 2 = \frac{3}{5} \times \frac{1}{2} = \frac{3}{10}$

4. $4\frac{7}{8} \div 10 = \frac{39}{8} \times \frac{1}{10} = \frac{39}{80}$

5. $1\frac{3}{4} \times 5 = \frac{7}{4} \times \frac{5}{1} = \frac{35}{4}$

6. $60 - \frac{1}{2} = \frac{120 - 60}{2} = \frac{60^{30}}{2_{1}} = 30$

7. $8\frac{1}{2} \div 7 = \frac{17}{2} \times \frac{1}{7} = \frac{17}{14}$

8. $\frac{3}{8} \times 5 = \frac{15}{8} kg$

9. $\frac{13}{14} \times 7 = \frac{91}{14} kg$

10. $2\frac{7}{12} \div 10 = \frac{31}{12} \times \frac{1}{10} = \frac{31}{120}$

11. $3\frac{7}{10} \div 20 = \frac{37}{10} \times \frac{1}{20} = \frac{37}{200}$

12. $1\frac{2}{4} \times 5 = \frac{6}{4} \times 5 = \frac{30^{15}}{4_{2}} = \frac{15}{2}$

13. $25\frac{1}{2} \div 5 = \frac{51}{2} \times \frac{1}{5} = \frac{51}{10}$

14. $36\frac{1}{2} \div 18 = \frac{72^{4^{2}}}{2_{1}} \times \frac{1}{18_{1}} = 2$

Unit 4

Exercise 4A

1. **Complete the table.**
   - **a)** 4/10 , 0.4 , zero point four
   - **b)** 6/10 , 0.6 , zero point six
   - **c)** 8/10 , 0.8 , zero point eight
   - **d)** 3/10 , 0.3 , zero point three
2. **Write the given fractions in decimals.**
   - **a)** 0.12
   - **b)** 0.2
   - **c)** 4.04
   - **d)** 0.05
   - **e)** 0.85
3. **Convert the given fractions**
   - **a)** 0.325
   - **b)** 0.007
   - **c)** 0.044
   - **d)** 0.025
   - **e)** 0.185
4. **Write the value of coloured digit**
   - **a)** Tens
   - **b)** Tens
   - **c)** Ones
   - **d)** Thousands
   - **e)** Hundreds
   - **f)** Ones
5. **Coloured the shapes given in mathematics success.**
6. $\frac{72}{100} = 0.72$
7. $\frac{100}{1000} = 1.000$

Exercise 4B

1. **Convert the fractions into decimals.**
   - **a)** 0.05
   - **b)** 2.3
   - **c)** 1.05
   - **d)** 0.7
   - **e)** 3.44
   - **f)** 4.5
   - **g)** 1.35
   - **h)** 2.84
   - **i)** 0.47
   - **j)** 0.06
   - **k)** 0.8
   - **l)** 0.67
   - **m)** 1.76
   - **n)** 0.2
   - **o)** 88.3
2. **Identify**
   - **a)** 34/100
   - **b)** 714/100
   - **c)** 3/100
   - **d)** 54/100
   - **e)** 503/100
   - **f)** 40/100
   - **g)** 379/100
   - **h)** 109/100
   - **i)** 85/100

Exercise 4C

1. **Convert the following**
   - **a)** 0.6

b) 0.24
c) 0.2
d) 0.32
e) 0.8
f) 0.34
g) 0.68
h) 0.75
i) 0.96
j) 0.95

2. Convert the decimals

a) 37/100
b) 416/1000
c) 9/10
d) 815/1000
e) 236/100

3. Write your answer

a) Mixed fraction = $2\frac{6}{10}$
Improper fraction = $\frac{26}{10}$

b) Mixed fraction = $1\frac{3}{10}$
Improper fraction = $\frac{13}{10}$

c) Mixed fraction = $03\frac{1}{10}$
Improper fraction = $\frac{31}{10}$

d) Mixed fraction = $\frac{9}{10}$
Improper fraction = $\frac{9}{10}$

e) Mixed fraction = $4\frac{8}{10}$
Improper fraction = $\frac{48}{10}$

f) Mixed fraction = $\frac{34}{100}$
Improper fraction = $\frac{34}{100}$

g) Mixed fraction = $1\frac{58}{100}$
Improper fraction = $\frac{158}{100}$

h) Mixed fraction = $3\frac{1}{10}$
Improper fraction = $\frac{31}{10}$

i) Mixed fraction = $4\frac{81}{100}$
Improper fraction = $\frac{481}{100}$

j) Mixed fraction = $1\frac{43}{100}$
Improper fraction = $\frac{143}{100}$

Exercise 4D

1. Identify the decimals.

	Tens	Ones	.	Tenths	Hundreds	thousands
15.163	1	5	.	1	6	3
3.645	0	3	.	6	4	5
0.321	0	0	.	3	2	1
2.625	0	2	.	6	2	5
1.348	0	1	.	3	4	8
9.027	0	9	.	0	2	7

2. Write the following as decimals.

a) 0.01
b) 0.19
c) 0.053

3. $\frac{5}{1000} = 0.005$

4. $\frac{10}{1000} = 0.01$

5. $\frac{75}{100} = 0.75$

6. $\frac{100}{1000} = 0.1$

7. $\frac{7}{10} = 0.7$

8. $\frac{77}{100} = 0.77$

9. $\frac{6}{100} = 0.06$

10. $\frac{110}{1000} = 0.11$

11. $\frac{42}{100} = 0.42$

12. $\frac{199}{1000} = 0.199$

13. Represents following in decimal fractions.

a) 0.26

b) 0.006

c) 0.8

d) 0.028

e) 0.04

f) 1.96

g) 0.8

h) 0.09

14. Convert the following decimals into fractions.

a) $1.9 = 1\frac{9}{10}$

b) $1.63 = 1\frac{63}{100}$

c) $7.98 = 7\frac{49}{50}$

d) $21.72 = 21\frac{18}{25}$

e) $13.13 = 13\frac{13}{100}$

f) $0.68 = \frac{17}{25}$

g) $5.30 = 5\frac{3}{10}$

h) $6.43 = 6\frac{43}{100}$

15. $\frac{8}{50} = 0.16$

$\frac{8}{200} = \frac{1}{25} = 0.04$

16. $45.2 = 45\frac{1}{2}$

17. $\frac{3}{6} = \frac{3^{1}}{6_{2}} = \frac{1}{2} = 0.5$

Exercise 4E

1. Solve the following decimals values.

a)

44.6
+33.4
78

b)

8.61
+10.72
19.33

c)

6.9
+5.4
12.3

d)

5.54
+4.30
9.84

e)

12.09
+8.48
20.57

f)

33.01
+11.97
44.98

v

g)

3.85
+2.34
6.19

h)

60.13
+39.99
99.46

i)

43.36
+81.03
124.39

j)

6.05
+3.43
9.48

k)

7.30
+2.98
10.28

l)

5.14
+5.76
10.9

2.

3.98
+2.01
5.99

3.

3.22
+5.11
8.33

Exercise 4F

1. **Solve the following.**

a)

6.3
-2.1
4.2

b)

14.2
-10.1
4.1

c)

5.92
-3.21
2.71

d)

9.18
-5.04
4.14

e)

7.92
-4.42
3.5

f)

67.09
-25.02
42.07

g)

3.25
-0.07
3.18

h)

5.01
-3.25
1.76

i)

62.7
-58.3
4.4

j)

62.9
-18.3
44.6

k)

9.34
-5.18

v

4.16

l)

4.66
-2.01
2.65

m)

5.80
-2.95
2.85

n)

8.77
-0.80
7.97

o)

5.47
-2.86
2.61

p)

8.64
-2.43
6.21

2. Solve the followings.

a)

4.31
-3.12
1.19

b)

7.89
-5.19
2.7

c)

6.32
-3.10
3.22

d)

9.80
-2.09
7.71

e)

6.06
-1.53
4.53

f)

43.9
-12.4
31.5

3.

49.2
+50.7
99.9

4.

47.6
-42.5
5.1

Exercise 4G

1. Solve the following.

a)

5.9
×10
59

b)

4.9
×100
490

c)

8.3
×1000
8300

d)

9.2
×10
92

v

e)

4.8 ×1000
4800

f)

3.6 ×100
360

2. Solve the following.

a)

6.6 ×8
52.8

b)

7.1 ×3
21.3

c)

5.8 ×3
17.4

d)

4.2 ×7
1.6

e)

2.7 ×5
13.5

f)

9.7 ×9
87.3

3. Solve the following.

$\frac{1.8}{10} \times 10 = 18$

a) $2\overline{)18}$ $\begin{array}{r} 9 \\ \underline{18} \\ 0 \end{array}$ 0.9

$\frac{1.8}{10} \times 10 = 18$

b) $3\overline{)18}$ $\begin{array}{r} 6 \\ \underline{18} \\ 0 \end{array}$ 0.6

$\frac{8.4}{10} \times 10 = 84$

c) $4\overline{)84}$ $\begin{array}{r} 21 \\ \underline{84} \\ 0 \end{array}$ 2.1

$\frac{9.6}{10} \times 10 = 96$

d) $6\overline{)96}$ $\begin{array}{r} 16 \\ \underline{96} \\ 0 \end{array}$ 1.6

$\frac{2.7}{10} \times 10 = 27$

e) $3\overline{)27}$ $\begin{array}{r} 9 \\ \underline{27} \\ 0 \end{array}$ 0.9

$\frac{8.8}{10} \times 10 = 88$

f) $8\overline{)88}$ $\begin{array}{r} 11 \\ \underline{88} \\ 0 \end{array}$ 1.1

$\frac{8.8}{10}\times 10 = 88$

4. $4\overline{)88}$ $\frac{22}{}$ 2.2

$\underline{88}$

0

$\frac{9.6}{10}\times 10 = 96$

5. $3\overline{)96}$ $\frac{32}{}$ 3.2

$\underline{96}$

0

6. $\frac{1.3}{10}\times 10 = 13$ 9.1km

$13\times 7 = 91$

Unit 5

Measurements

Exercise 5A

1. **Convert the following length in meters.**
   - **(a)** $5km = 5\times 1000m = 5000m$
   - **(b)** $9km = 9\times 1000m = 9000m$
   - **(c)** $16km = 16\times 1000m = 16000m$
   - **(d)** $21km = 21\times 1000m = 21000m$
   - **(e)** $31km = 31\times 1000m = 31000m$
   - **(f)** $40km = 40\times 1000m = 40,000m$
   - **(g)** $78km = 78\times 1000m = 78,000m$
   - **(h)** $99km = 99\times 1000m = 99,000m$

2. **Convert the following lengths into meters.**
   - **a)** $7km + 20m = (7\times 1000m) + 20 = 7020m$
   - **b)** $12km + 60m = (12\times 1000m) + 60 = 12060m$
   - **c)** $19km + 25m = (19\times 1000m) + 25 = 19025m$
   - **d)** $35km + 12m = (35\times 1000m) + 12 = 35012m$
   - **e)** $42km + 70m = (42\times 1000m) + 70 = 42070m$
   - **f)** $98km + 99m = (98\times 1000m) + 99 = 98099m$

3. **Change meter into centimeter.**
   - **a)** $5m = 5\times 100 = 500cm$
   - **b)** $70m = 70\times 100 = 7000cm$
   - **c)** $12m = 12\times 100 = 1200cm$

4. **Change in millimeter.**
   - **a)** $36cm = 36\times 10mm = 360mm$
   - **b)** $71cm = 71\times 10mm = 710mm$
   - **c)** $18cm = 18\times 10mm = 180mm$

5. **Convert these unit of lengths.**
   - **a)** $141km = 141\times 1000 = 141000m$
   - **b)** $58km + 810 = (58\times 1000) + 810 = 58810m$
   - **c)** $77m = 77\times 100cm = 7700cm$
   - **d)** $40m + 68cm = (40\times 100cm) + 68cm = 4068cm$
   - **e)** $3.5cm = 3.5\times 10 = 35mm$
   - **f)** $52cm = (52\times 10) + 2 = 522mm$

6. **Complete the conversion table.**
   - **a)** 3000m
   - **b)** 12km
   - **c)** 37000m

v

d) 56km
e) 75000m
f) 94km

7. Complete the unit conversion table.

a) 91000m
b) 400cm
c) 15000m
d) 720cm
e) 66000m
f) 280cm

Exercise 5B

1. Solve the following.

a)

42km
+33km
75km

b)

30m
+52m
82m

c)

2m16cm
+14m10cm
16m26cm

d)

2km122m
+11m
2km133m

e)

70cm1mm
+11cm8mm
81cm9mm

f)

49m
+22m
71m

g)

99km
-54km
45km

h)

20m14cm
-20m10cm
4cm

i)

30cm9mm
-20cm2mm
10cm7mm

j)

8km 300m
+900m
8km 1200m

k)

2km 14cm
-20m 10cm
18m 4cm

l)

2m 12cm
-98cm
2m 86cm

2. Solve the following.

a)

99km
-84km
15km

b)

49m
+22m
71m

c)

v

20m 14cm
-20m 10cm
4cm

d)

84km 121m
-10m
84km 111m

e)

30cm 9mm
-20cm 2mm
10cm 7mm

3.

3km 10m
-1km 21m
2km 11m

4.

48m 10cm
+62m 10cm
110m 20cm

5.

4m 56cm
+5m 42cm
9m 98cm

Exercise 5C

1. **Convert the following into gram.**
   - **a)** $2kg = 2 \times 1000g = 2000g$
   - **b)** $13kg = 13 \times 1000g = 13000g$
   - **c)** $51kg = 51 \times 1000g = 51000g$
   - **d)** $72kg = 72 \times 1000g = 72000g$
   - **e)** $95kg = 95 \times 1000g = 95000g$
   - **f)** $36kg = 36 \times 1000g = 36000g$
   - **g)** $1kg + 700g = (1 \times 1000g) + 700 = 1700g$
   - **h)** $12kg + 200g = (12 \times 1000g) + 200 = 12,200g$
   - **i)** $23kg + 200g = (23 \times 1000g) + 200 = 23,200g$
   - **j)** $85kg + 600g = (85 \times 1000g) + 600 = 85,600g$
   - **k)** $93kg + 50g = (93 \times 1000g) + 50 = 93,050g$
   - **l)** $75kg + 175g = (75 \times 1000g) + 175 = 75,175g$
2. **To complete 1kg, how many more grams were added.**
   - **a)** $1kg = 1000g$
     $1000g - 500g = 500g$
   - **b)** $1kg = 1000g$
     $1000g - 250g = 750g$
   - **c)** $1kg = 1000g$
     $1000g - 200g = 800g$
   - **d)** $1kg = 1000g$
     $1000g - 100g = 900g$
   - **e)** $1kg = 1000g$
     $1000g - 600g = 400g$
   - **f)** $1kg = 1000g$
     $1000g - 450g = 550g$
3. **Which is lighter?**
   - **a)** 1kg 700g
   - **b)** 2kg 50 g
   - **c)** 3kg 200g

v

d) 3kg 40g

4. How much more is needed to make it 2kg.

$1kg = 1000g$

a) $2kg = 2000g$

$2000g - 1kg\,400g = 600g$

$1kg = 1000g$

b) $2kg = 2000g$

$2000g - 1kg\,100g = 900g$

$1kg = 1000g$

c) $2kg = 2000g$

$2000g - 600g = 1kg\,400g$

$1kg = 1000g$

d) $2kg = 2000g$

$2000g - 400g = 1kg\,600g$

5. Solve the followings.

98kg
-23kg
75kg

a)

b)

30g 52mg
-25g 119mg
5g 67mg

c)

84g
-25g
59g

d)

50kg 40g
-20kg 40g
30kg

e)

46kg 30g
+68kg 12g
114kg 42g

f)

31kg42g
+42kg 20g
73kg 62g

g)

3.6kg
+4.2kg
7.8kg

h)

9.2g
+2.3g
11.5g

6.

4.3kg
+5.1kg
9.4kg

7.

72kg 38g
-68kg 29g
4kg 9g

8.

9kg 14g
-7kg 9g
2kg 5g

9.

40kg 31g
+39kg 13g
79kg 44g

10.

7.9kg
-3.5kg
4.4kg

11.

$1kg = 1000g$

$1.5kg = 1.5 \times 1000g = 1500grams$

$1kg = 1000g$

12. $40kg13g = (40 \times 1000g) + 13g = 40,000 + 13$

$40,013grams$

13. $1g = 1000mg$

$800g = 800 \times 1000mg = 800,000mg$

Exercise 5D

1. **Convert the following into ml.**

a) $1litre = 1000m.litre$

$8l = 8 \times 1000ml = 8000ml$

b) $1litre = 1000m.litre$

$14l = 14 \times 1000ml = 14000ml$

c) $1litre = 1000m.litre$

$32l = 32 \times 1000ml = 32000ml$

d) $1litre = 1000m.litre$

$59l = 59 \times 1000ml = 59000ml$

e) $1litre = 1000m.litre$

$62l = 62 \times 1000ml = 62000ml$

f) $1litre = 1000m.litre$

$71l = 71 \times 1000ml = 71000ml$

g) $1litre = 1000m.litre$

$85l = 85 \times 1000ml = 85000ml$

h) $1litre = 1000m.litre$

$99l = 99 \times 1000ml = 99000ml$

i) $1litre = 1000m.litre$

$0.7l = 0.7 \times 1000ml = 700ml$

j) $1litre = 1000m.litre$

$4.4l = 4.4 \times 1000ml = 4400ml$

k) $1litre = 1000m.litre$

$5.3l = 5.3 \times 1000ml = 5300ml$

l) $1litre = 1000m.litre$

$1.0l = 1.0 \times 1000ml = 1000ml$

2. **Convert the followings into milliliter.**

a) $1litre = 1000m.litre$

$5l42ml = (5 \times 1000ml) + 42ml = 5042ml$

b) $1litre = 1000m.litre$

$18l67ml = (18 \times 1000ml) + 67ml = 18067ml$

c) $1litre = 1000m.litre$

$33l21ml = (33 \times 1000ml) + 21ml = 33021ml$

d) $1litre = 1000m.litre$

$50l17ml = (50 \times 1000ml) + 17ml = 50017ml$

e) $1litre = 1000m.litre$

$72l28ml = (72 \times 1000ml) + 28ml = 72028ml$

f) $1litre = 1000m.litre$

$93l86ml = (93 \times 1000ml) + 86ml = 93086ml$

v

g) $1litre = 1000m.litre$

$33l14ml = (33 \times 1000ml) + 14ml = 33014ml$

h) $1litre = 1000m.litre$

$12l26ml = (12 \times 1000ml) + 26ml = 12026ml$

i) $1litre = 1000m.litre$

$39l68ml = (39 \times 1000ml) + 68ml = 39068ml$

3. Convert the following in litres.

a) $5000ml = \frac{5000}{1000} l = 5l$

b) $3000ml = \frac{3000}{1000} l = 3l$

c) $600ml = \frac{600}{1000} l = 0.6l$

d) $210ml = \frac{210}{1000} l = 0.21l$

e) $10,000ml = \frac{10,000}{1000} l = 10l$

f) $27,000ml = \frac{27,000}{1000} l = 27l$

Exercise 5E

a)

8km 45m
+12km963m
20kg 1008m

b)

15kg 816g
+26kg 506g
41kg 1322g

c)

15cm 2mm
+28cm 9mm
43cm 11mm

d)

48m 46cm
+12m 45cm
60m 91cm

e)

15kg 126g
+26kg 426g
41kg 552g

3. Add the following.

a)

8l 570ml
+29l 736ml
37l 1306ml

b)

6l 752ml
+25l 840ml
31l 1592ml

4. Subtract

a)

95km 57m
-40km 20m
55kg 37m

b)

106kg 95g
-73kg 85g
33kg 10g

c)

96m 12cm
-76m 11cm
20m 1cm

d)

56g 70mg
-15g 27mg
41g 43mg

e)

65m 35mm
-11m 10mm
54m 25mm

f)

78cm 13mm
-42cm 8mm

v

36cm 5mm

5. Subtract

a)

38l 326ml
-12l 430ml
26l 104ml

b)

26l 9ml
-10l 89ml
16l 80ml

6.

16km 21m
+10km
26km 21m

7.

175km 21m
+19km
194km 21m

200km
-194km 21m
7km 49m

8.

8km 45m
+12km963m
20kg 1008m

9.

26km 25m
+13km 74m
39km 99m
40km 50m
-39km 99m
1km 49m

10.

8kg 820g
15kg
+11kg 200g
34kg 1020g

11.

20kg 57g
-19kg 52g
1kg 5g

12.

3l 25ml
+2l 27ml
5l 52ml

13.

30l
-20l
10l

Exercise 5F

1. Convert into minutes.

$1hour = 60\min$

a) $9h42\min = (9\times60)+42 = 540+42$
$= 582\min$

$1hour = 60\min$

b) $18h5\min = (18\times60)+5 = 1080+5$
$= 1085\min$

$1hour = 60\min$

c) $27h22\min = (27\times60)+22 = 1620+22$
$= 1642\min$

$1hour = 60\min$

d) $40h11\min = (40\times60)+11 = 2400+11$
$= 2411\min$

e) $1hour = 60\min$
$21h = 21\times60 = 1260\min$

$1hour = 60\min$

f) $23h14\min = (23\times60)+14 = 1380+14$
$= 1394\min$

2. Convert into seconds.

v

$1\min = 60\sec$

a) $100\min 11\sec = (100\times 60)+11 = 6000+11$
$= 6011\sec$

$1\min = 60\sec$

b) $176\min 12\sec = (176\times 60)+12 = 10,560+12$
$= 10,572\sec$

$1\min = 60\sec$

c) $65\min 37\sec = (65\times 60)+37 = 3900+37$
$= 3937\sec$

$1\min = 60\sec$

d) $432\min 03\sec = (432\times 60)+3 = 25,920+3$
$= 25,923\sec$

$1\min = 60\sec$

e) $1\min 13\sec = (1\times 60)+13 = 60+13$
$= 73\sec$

$1\min = 60\sec$

f) $7\min 12\sec = (7\times 60)+12 = 420+12$
$= 432\sec$

3. Convert .

a) 07:35 a m
b) 14:50 p m
c) 11:53 a m
d) 17:16 p m
e) 13:35 p m
f) 03:40 a m

4. Convert .

a) 05:25 a m
b) 03:20 p m
c) 09:48 a m
d) 06:42 p m
e) 03:31 p m
f) 12:56 a m

Exercise 5G

1. Convert the following into months.

a) $1 year = 12 months$
$9 years = 9\times 12 = 108 months$

b) $1 year = 12 months$
$16 years = 16\times 12 = 192 months$

$1 year = 12 months$

c) $21 years 10 months = (21\times 12)+10 =$
$= 252+10 = 262 months$

$1 year = 12 months$

d) $30 years 11 months = (30\times 12)+11 =$
$= 360+11 = 371 months$

$1 year = 12 months$

e) $43 years 7 months = (43\times 12)+7 =$
$= 516+7 = 523 months$

$1 year = 12 months$

f) $5 years 4 months = (5\times 12)+4 =$
$= 60+4 = 64 months$

2. Convert the following into days.

$1 month = 30 days$

a) $41 months 13 days = (41\times 30)+13 =$
$= 1230+13 = 1243 days$

$1 month = 30 days$

b) $27 months 2 days = (27\times 30)+2 =$
$= 810+2 = 812 days$

v

c) $1week = 7days$
$25weeks = (25 \times 7) = 175days$
$1week = 7days$

d) $7weeks2days = (7 \times 7) + 2 = 49 + 2days$
$= 51days$

e) $1week = 7days$
$41months12days = (41 \times 30) + 12 = 1230 + 12days$
$= 1242days$

f) $1week = 7days$
$32weeks4days = (32 \times 7) + 4 = 224 + 4days$
$= 228days$

3. Convert the following days into hours.

a) $1day = 24hours$
$3days = 3 \times 24 = 72hours$

b) $1day = 24hours$
$9days = 9 \times 24 = 216hours$

c) $1day = 24hours$
$11days = 11 \times 24 = 264hours$

d) $1day = 24hours$
$7\frac{1}{2}days = 7.5 \times 24 = 180hours$

e) $1day = 24hours$
$4days = 4 \times 24 = 96hours$

f) $1day = 24hours$
$10days = 10 \times 24 = 240hours$

g) $1day = 24hours$
$2days = 2 \times 24 = 48hours$

h) $1day = 24hours$
$5\frac{1}{2}days = 5.5 \times 24 = 132hours$

i) $1day = 24hours$
$8days = 8 \times 24 = 192hours$

4. Answer the followings.

a) 120 min

b) 1440 days

c) June

d) September

Exercise 5H

1. Solve the following.

a)

30h 10 min
+12h 15min
42h 25m

b)

5min 9sec
+10min 12sec
15min 21sec

c)

40years 2months
+32years 6months
53years 8months

d)

7months 2days
+3months 5days

10months 7days

2. **Solve the following.**

a)

11months 20days -8months 5days
3months 15days

b)

37years 6months -17years 5months
20years 1month

c)

26min 42sec -10min 30secd
16min 12sec

d)

65h 28min -42h 10min
23h 18min

3. **Noor travels**

a)

8h 15min +6h 10min
14h 25min

b)

8h 15min -6h 10min
2h 5min

4.

2years 8months -1 year 2monthys
1year 6months

$1 year 6 months = (1 \times 12) + 6 = 12 + 6$
$= 18 months$

Exercise 5I

1. **How many minutes have passed from 1 to clock 2.**
   - **a)** 40 min
   - **b)** 35 min
   - **c)** 50 min
   - **d)** 20 min
2. **Attempt the followings.**
   - **a)** 1 hour 30 min
   - **b)** 45 min
   - **c)** 3 hours 40 min
   - **d)** 1 hour 55 min
   - **e)** 06:00 p m
   - **f)** 12:30 p m
   - **g)** 12:30 a m
   - **h)** 40 min
   - **i)** 10 hours 5 min
   - **j)** 3 hours 15 min
   - **k)** 11:47 p m
   - **l)** 4 hours 20 min

Geometry

Exercise 6A

1. **Identify parallel and non-parallel.**
   - **a)** Parallel
   - **b)** Non parallel
   - **c)** Non parallel
   - **d)** Non parallel

e) Non parallel
f) Parallel

Exercise 6B

2. Classify the following

a) Acute
b) Obtuse
c) Obtuse
d) Obtuse
e) Acute
f) Acute
g) Right
h) Acute
i) Obtuse
j) Acute
k) Obtuse
l) Acute

4.. How many angles are formed in each of the following figures? Name them:

a) 3 angles m<A , m<B , m<C
b) 4 angles m<S , m<P , m<Q , m<R
c) 4 angles m<U , m<V , m<X , m<w
d) 6 angles m <L m <M , m<N , m<O m <P m <Q

Exercise 6C

1. Identify the parts of each circle.

a) Centre = R , radius = RS , diameter = PQ
b) Centre = C , radius = CD , diameter = AB
c) Center = L , radius = LK , diameter = JK
d) Center = X , radius = WX , diameter = YZ
e) Center = G , radius = HG , diameter = IJ
f) Center = N , radius = NP , diameter = MO

4. Find the radius if the diameter of the circle:

a. radius **=** 6 cm

b. radius **=** 18 cm

c. radius **=** 14 cm

d. radius **=** 4 cm

Exercise 6D

1. Find the perimeter of the given shapes.

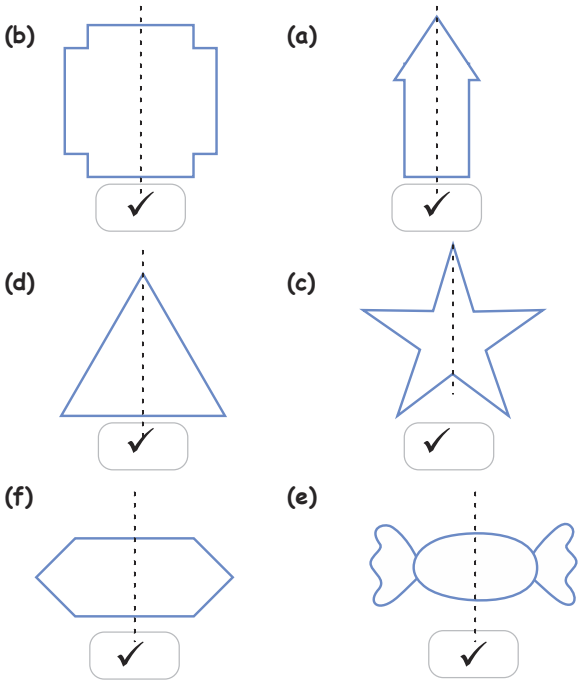
a) $5 \times 5 = 25$
b) $7 \times 4 = 28cm$
c) $6 \times 6 = 36cm$

2. Find the area of given shaded figures:

a) $4 \times 2 = 8cm^2$
b) $10 \times 3 = 30cm^2$
c) $4 \times 2 = 8cm^2$
d) $1 \times 7 = 7cm^2$

Exercise 6E

1. Mark a tick on the figure where you can see a line of symmetry although draw lines of symmetry if possible.



Exercise 6F

1. **Look at the shapes and fill in the blanks.**
   - **a)** Cube , six , 12 , 8 , 8
   - **b)** Pyramid , 4 , 8 edges , 5 corners
   - **c)** Cuboid , six faces , 12 edges , 8 vertex.

Unit 7

Exercise 7A

The minimum time for students for studies of different grades is shown by using the bar graph.

- **a)** 4 hours
- **b)** At the age of 14.

2. **Read the above bar graph and answer the following question.**

a) Kiran
b) Rabiya
c) No one have same height
d) 10cm

3.

- **a)** Mahmood
- **b)** Adil
- **c)** Usama got 5 marks greater than Hamza
- **d)** Hamza , Mahmood , ahmed , usama
- **e)** Haris and saqib obtained equal marks

Exercise 7B

1. **Ali's cycling**
   - **a)** Between 9 and 10 hours
   - **b)** Between 12 to 1 hours
2. **Sana's height**
   - **a)** 25 inches
   - **b)** 20 inches
   - **c)** 10 years old
   - **d)** 20.5 inches
3. **Elephants population.**
   - **a)** 34
   - **b)** 25
   - **c)** 2008
   - **d)** 2005
   - **e)** 4 elephants

Exercise 7C

1. **Different modes of transportation**
    - **a)** Rickshaw
    - **b)** Bicycle
2. **This pie chart,**
    - **a)** Pre-school
    - **b)** Grade 4