Solution of Math Class 5

Unit 1

Whole numbers and operations

Exercise 1A

1. **Write the place value**
   - **a)** T.th
   - **b)** H.th
   - **c)** Hundreds
   - **d)** H.th
   - **e)** H.th
   - **f)** T.th
2. **Write in expanded form**
   - **a)** 200000+40000+600+20+8
   - **b)** 300000+2000+17+6
   - **c)** 200000+79000+500+60
   - **d)** 800000+37000+43
   - **e)** 100000+7000+84

Exercise 1B

1. **Write each of the following numbers in words.**
   - **a)** Two lakh one thousand five hundreds forty three
   - **b)** Two lakh seventeen thousand four hundred eight
   - **c)** Two lakh fifty six thousand eight hundred seventy six
   - **d)** Three lakh one thousand sixty eight
   - **e)** One lakh ninety two thousand four hundred and sixty eight
   - **f)** Two lakh one thousand seven hundred and ninety four
   - **g)** Nine lakh thirty one thousand four hundred and sixty eight
   - **h)** Four lakh twenty six thousand one hundred and ninety three
   - **i)** Three lakh and five
2. **Write each of the following number in figures.**
   - **a)** 473,590
   - **b)** 863,840
   - **c)** 890,515
   - **d)** 15,309
3. **Find the place value of:**

a) H.th
b) Ones
c) Th
d) H.th
e) Hundreds
f) T.th

4. **Write the following numbers in expanded form.**
   - **a)** 700000+39000+100+20+4
   - **b)** 100000+90000+300+80+2
   - **c)** 300000+62000+100+10+5
   - **d)** 300000+50000+700+40+2
   - **e)** 800000+4
   - **f)** 30000+700+3

5. **Compare each of the following pairs of numbers using < ,> in the box.**
   - **a)** <
   - **b)** <
   - **c)** <
   - **d)** <
   - **e)** <
   - **f)** >
   - **g)** <
   - **h)** >
6. **Write the greatest and smallest 6 digit numbers.**
   - **a)** Greatest = 9,9,9,9,9,9
     Smallest = 1,1,1,1,1
   - **b)** Greatest = 8,8,8,8,8,8
     Smallest = 0,0,0,0,0,0
7. **Write the greatest and the smallest 6 digit number**
   - **a)** Greatest = 975431
     Smallest = 134579
   - **b)** Greatest = 865310
     Smallest = 13568
8. **Write the greatest 6-digit numbers.**
   - **a)** 999999
   - **b)** 987987
9. **Observe the pattern and write the next three numbers.**
   - **a)** 534,327, 534,427, 534,527
   - **b)** 315,563, 316,563, 317,563
   - **c)** 126,748, 116,748, 106,748
   - **d)** 954,384, 954,284, 954,184

Exercise 1C

1. **Add the following.**

a.

	5	3	2	6
	8	0	1	5
	13	**3**	**4**	**1**

b.

3	9	7	6	4
	2	8	5	3
	42	**6**	**1**	**7**

c.

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

d.

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

2. **Subtract the following.**

a.

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

b.

8	0	4	3	1
3	6	2	5	4
4	**4**	**1**	**7**	**7`**

c.

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

d.

4	0	0	0	0
2	3	5	6	1
1	**6**	**4**	**3**	**9**

3. **Multiply the following.**

a.

	2	4	3	7 3
	7	**0**	**2**	**3**

b.

		4	7 2	2 6
	12	**2**	**7**	**2**

c.

		2	1 3	7 2
6		**9**	**4**	**4**

4. Multiply orally.

a) 4500

b) 35600

c) 52000

d) 650

e) 480

f) 6300

g) 3500

h) 360

5. Divide and find the quotient and remainder.

a.

$$10\overline{)456}\quad 45,\ 40,\ 56,\ 50,\ 6$$

Quotient = 602

Remainder = 1

a)

$$9\overline{)5894}\quad 654,\ 54,\ 49,\ 45,\ 44,\ 36,\ 8$$

Quotient = 654

Remainder = 8

c.

$$14\overline{)4046}\quad 289,\ 28,\ 124,\ 112,\ 126,\ 126,\ 0$$

b) Quotient = 289

Remainder = 0

6. Find the quotient and remainder.

a.

$$10\overline{)78}\quad 7,\ 70,\ 8$$

Quotient = 7

Remainder = 8

b. 456 ÷10

$$\begin{array}{r} 45 \\ 10\overline{)456} \\ \underline{40} \\ 56 \\ \underline{50} \\ 6 \end{array}$$

Quotient = 45

Remainder = 6

c. 6508 ÷ 100

$$\begin{array}{r} 65 \\ 100\overline{)6508} \\ \underline{600} \\ 508 \\ \underline{500} \\ 8 \end{array}$$

Quotient = 65

Remainder = 8

d. 150 ÷10

$$\begin{array}{r} 15 \\ 10\overline{)150} \\ \underline{10} \\ 50 \\ \underline{50} \\ 0 \end{array}$$

Quotient = 15

Remainder = 0

e. 480 ÷80

$$\begin{array}{r} 6 \\ 80\overline{)480} \\ \underline{480} \\ 0 \end{array}$$

Quotient = 6

Remainder = 0

f. 630 ÷90

$$\begin{array}{r} 7 \\ 90\overline{)630} \\ \underline{630} \\ 0 \end{array}$$

Quotient = 7

Remainder = 0

g. 5600 ÷ 70

$$\begin{array}{r} 80 \\ 70\overline{)5600} \\ \underline{5600} \\ 0 \end{array}$$

Quotient = 80

Remainder = 0

h. 2416 ÷ 100

$$\begin{array}{r} 1386 \\ 35\overline{)48529} \\ \underline{35} \\ 135 \\ \underline{105} \\ 302 \\ \underline{280} \\ 229 \\ \underline{210} \\ 19 \end{array}$$

Quotient = 24

Remainder = 16

Exercise 1D

1. **Find the sum.**

   a.

2	3	5	2	4	0	

4	7	4	6	9	8
7	**0**	**9**	**9**	**3**	**8**

b.

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

b.

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

d.

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

2. Arrange the column and add.

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

b.

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

C.

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

d.

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

3. Fill the blanks.

a)

	4	5	8	7	**3**
	5	**4**	4	2	5
+	6	4	7	**8**	6
1	**6**	**5**	**0**	**8**	**4**

b)

4. Subtract:

a.

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

b.

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

c.

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

d.

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

e.

7	0	0	0	0	0
5	3	8	4	3	5
1	**6**	**1**	**5**	**6**	**5**

f.

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

5. Find the difference between.

a) 865,381 – 343,095

522286

b) 728,154 – 353,086

375068

c) 619,700 – 420,035

199665

d) 700,000 – 354,790

345210

Exercise 1E

Simplify

	2	5	1	7	3	4
+	6	1	2	1	0	3
	8	**6**	**3**	**8**	**3**	**7**

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

2.

	6	3	1	2	9	6
-	2	6	1	0	3	5
	3	**7**	**0**	**2**	**6**	**1**

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

3.

	5	4	1	8	7	0
	-	2	5	1	3	5
	5	**1**	**6**	**7**	**3**	**5**

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

4.

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

	6	1	2	3	5	7
+	1	`8	5	0	9	3
	7	**9**	**7**	**4**	**5**	**0**

	7	9	7	4	5	0
-	7	1	2	5	4	1
	2	**8**	**5**	**2**	**7**	**7**

5.

	5	9	2	5	6	1
-	1	2	0	0	5	3
	4	**7**	**2**	**`5**	**0**	**8**

	2	5	7	0	9
-	1	8	3	5	2
		7	**3**	**5**	**7**

	4	7	2	5	0	8
	+		7	3	5	7
	4	**7**	**9**	**8**	**6**	**5**

6.

	3	0	0	7	6	1
-	1	5	7	3	2	4
	1	**4**	**3**	**4**	**3**	**7**

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

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

7. **subtract the difference of 635,100 and 217,534 from their sum.**

	6	3	5	1	0	0
-	2	1	7	5	3	4
	4	**1**	**7**	**5**	**6**	**6**

	6	3	5	1	0	0
+	2	1	7	5	3	4
	8	**5**	**2**	**6**	**3**	**4**

	8	5	2	6	3	4
-	4	1	7	5	6	6
	4	**3**	**5**	**0**	**6**	**8**

Exercise 1F

Find the following product.

	1	2	6	3	5	
	×			1	0	
	1	**2**	**6**	**3**	**5**	**0**

2.

	5	3	3	6	9	
	×			1	0	
	5	**3**	**3**	**6**	**9**	**0**

3.

		8	6	5	8	
	×			1	0	
	8	**6**	**5**	**8**	**0**	

4.

	1	6	7	7	0	
×				1	0	
1	**6**	**7**	**7**	**0**	**0**	

5.

		1	6	5	3	
	×		1	0	0	
1	**6**	**5**	**3**	**0**	**0**	

6.

		3	6	3	5	
	×		1	0	0	
3	**6**	**3**	**5**	**0**	**0**	

7.

		8	7	8	1	
	×		1	0	0	
8	**7**	**8**	**1**	**0**	**0**	

8.

		1	0	5	0	
	×		1	0	0	
1	**0**	**5**	**0**	**0**	**0**	

9.

			1	2	8	
	×	1	0	0	0	
1	**2**	**8**	**0**	**0**	**0**	

10.

			4	8	3	
	×	1	0	0	0	
4	**8**	**3**	**0**	**0**	**0**	

11.

			4	0	7	
	×	1	0	0	0	
4	**0**	**7**	**0**	**0**	**0**	

12.

				7	4	
	×	1	0	0	0	
	7	**4**	**0**	**0**	**0**	

Exercise 1G

1. **Find the following product.**

a.

	1	3	4	7
	×			3
3	**0**	**9**	**8**	**1**

b.

	2	5	4	1
	×		5	4
1 3	**7**	**2**	**1**	**4**

c.

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

d.,

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

e.

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

f.

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

g.

		9	8	7
×		4	5	0
4 4	**4**	**1**	**5**	**0**

h.

	9	5	4
×	2	5	6
2 4	**4**	**2**	**2**	**4**

i.

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

j.

		3	5	1
	×	2	6	3
9	**2**	**3**	**1**	**3**

k.

	3	6	2	1
	×	1	2	5
4 5	**2**	**6**	**2**	**5**

l.

	3	2	5	6
	×	2	5	8
8 4	**0**	**0**	**4**	**8**

2. **Multiply**

a.

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

b.

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

c.

	2	1	3	0	8
	×			2	5
5 3	**2**	**7**	**0**	**0**	

d.

	1	6	5	4

		×	4	3	1	
7	**1**	**2**	**8**	**7**	**4**	

e.

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

f.

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

g.

		5	0	1	
	×	1	2	3	
6	**1**	**6**	**2**	**3**	

h.

		1	7	5	0
	×	2	1	3	
3	**7**	**2**	**7**	**5**	**0**

Exercise 1H

1. **Solve the following.**

a.

$$35\overline{)48529}$$

$$\begin{array}{r} 1386 \\ 35\overline{)48529} \\ \underline{35} \\ 135 \\ \underline{105} \\ 302 \\ \underline{280} \\ 229 \\ \underline{210} \\ 19 \end{array}$$

1386 , remainder 19

b.

$$\begin{array}{r} 483 \\ 45\overline{)21735} \\ \underline{180} \\ 373 \\ \underline{360} \\ 135 \\ \underline{135} \\ 0 \end{array}$$

c.

$$\begin{array}{r} 1446 \\ 55\overline{)79575} \\ \underline{55} \\ 245 \\ \underline{220} \\ 257 \\ \underline{220} \\ 375 \\ \underline{330} \\ 45 \end{array}$$

1446 remainder 45

d.

$$
\begin{array}{r}
2282 \\
15\overline{)34230} \\
30 \\
\hline
42 \\
30 \\
\hline
123 \\
120 \\
\hline
30 \\
30 \\
\hline
0
\end{array}
$$

e.

$$
\begin{array}{r}
2356 \\
16\overline{)37700} \\
32 \\
\hline
57 \\
48 \\
\hline
90 \\
80 \\
\hline
100 \\
96 \\
\hline
4
\end{array}
$$

2356 remainder 4

f.

$$
\begin{array}{r}
1292 \\
23\overline{)29735} \\
23 \\
\hline
67 \\
46 \\
\hline
213 \\
207 \\
\hline
65 \\
46 \\
\hline
19
\end{array}
$$

Remainder : 19

g.

$$
\begin{array}{r}
3688 \\
18\overline{)66401} \\
54 \\
\hline
124 \\
108 \\
\hline
160 \\
144 \\
\hline
161 \\
144 \\
\hline
17
\end{array}
$$

3688 , remainder : 17

h.

```
      843
51 ) 43000
     408
     ---
      220
      204
      ---
       160
       153
       ---
         7
```

843 , remainder : 7

i.

```
      3581
25 ) 89743
     75
     --
      147
      125
      ---
       224
       200
       ---
        43
        25
        --
        18
```

3581 , remainder : 18

j.

```
      4598
10 ) 45982
     40
     --
      59
      50
      --
       98
       90
       --
        82
        80
        --
         2
```

4598 , remainder : 2

k.

```
      6835
10 ) 68359
     60
     --
      83
      80
      --
       35
       30
       --
        59
        50
        --
         9
```

6835 , remainder :9

l.

```
   5398
10)53982
   50
   39
   30
   98
   90
    82
    80
     2
```

5398 , remainder :2

2. Solve the followings.

a.

```
    2418
27)65312
   54
   113
   108
    51
    27
    242
    216
     26
```

```
    1564
63)98543
   63
   355
   315
   404
   378
    263
    252
     11
```

```
    2205
36)79404
   72
   74
```

c.

```
   72
   204
   180
    24
```

```
   48012
16)77000
   64
   130
```

d.

```
   128
    200
    192
     8
```

e.

$$
\begin{array}{r}
2859 \\
20\overline{)57186} \\
40 \\
\hline
171 \\
160 \\
\hline
118 \\
100 \\
\hline
186 \\
180 \\
\hline
6
\end{array}
$$

f.

$$
\begin{array}{r}
1428 \\
21\overline{)30000} \\
21 \\
\hline
90 \\
84 \\
\hline
60 \\
42 \\
\hline
180 \\
168 \\
\hline
12
\end{array}
$$

Exercise 1I

1.

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

2.

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

3.

2	5	6	3	8	1
1	4	2	9	5	4
3	**9**	**9**	**3**	**3**	**5**

4. subtract.

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

5. subtract

1	7	5	1	2	3
	8	1	5	7	2
	9	**3**	**5**	**5**	**1**

6. multiply

			3	4	5
		×	1	1	5
	3	**9**	**6**	**7**	**5**

7. multiply

			6	2	2
		×	1	6	5
1	**0**	**2**	**6**	**3**	**0**

8. multiply

		1	8	5	0
			4	6	0
8	**5**	**1**	**`0**	**0**	**0**

9. divide

$$
\begin{array}{r}
1250 \\
365\overline{)456250} \\
365 \\
\hline
912 \\
730 \\
\hline
1825 \\
1825 \\
\hline
0
\end{array}
$$

1250 years.

10. divide

$$
\begin{array}{r}
412 \\
207\overline{)85284} \\
828 \\
\hline
248 \\
207 \\
\hline
414 \\
414 \\
\hline
0
\end{array}
$$

Other number = 412

Exercise 1J

1. **Look at the pattern describe the rule and write the next two terms.**
   - **a)** 600 , 550 , 500
   - **b)** 480 , 460
   - **c)** 118 , 121
   - **d)** 40 , 4

Unit 2

Highest common factor and lowest common factor

Exercise 2A

1. **Fill in the blanks.**
   - **a)** Factors
   - **b)** Factors
   - **c)** 7 and 9
   - **d)** 6 and 15
2. **Say yes or no**
   - **a)** Yes
   - **b)** No
   - **c)** Yes
   - **d)** Yes
   - **e)** Yes
   - **f)** Yes
   - **g)** No
   - **h)** Yes
3. **Answer the following questions.**
   - **a)** 9 , 18 , 27 , 36
   - **b)** 21 , 42 , 63
   - **c)** 56 , 64 , 72 , 80 , 88
4. **Write the common factors.**
   - **a)** 1 and 3
   - **b)** 2 and 2
   - **c)** 1 2 3 and 6
5. **Write the first two common multiples.**
   - **a)** 20 and 40
   - **b)** 24 , 48
   - **c)** 30 and 60

Exercise 2B

1. 11 , 13 , 17 , 19
2. 5 , 7 , 11 , 13 , 17 , 19 , 23 , 29 , 31 , 37.
3. 29 , 31 , 37 , 41 , 43 , 47 , 49

4. 41 , 43 , 47 , 49 , 51 , 53 , 57 , 59 , 61 , 67 , 71 , 73
5. 61 , 67 , 71 , 73 , 79 , 81 , 83 , 87 , 89 , 93 , 97
6. 2 , 4 , 6 , 8 , 9 , 10 , 12 , 14 , 15 , 16 , 18
7. 52 , 54 , 55 , 56 , 58 , 60 , 62 , 63 . 64 , 65 . 66 , 68 , 69
8. 19 , 37 , 61 , 81
9. 39 , 79 , 63 , 91
10. Smallest prime number in 1
11. Yes
12. 2 and 3
13. 2 , 2 , 2 , 3 , 3
14. 2^5 , 3
15. **Express each of the following as the product of prime numbers.**
    - **a)** 2 , 2 , 2 , 3 , 5
    - **b)** 2 , 3 , 5 , 5
    - **c)** 2 , 3, 5 , 7

Exercise 2C

1. **Find the HCF of the following.**
    - **a)** The factors of 25 are: **1**, 5, 25

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

      Then the greatest common factor is 1.
    - **b)** The factors of 17 are: 1, **17**

      The factors of 34 are: 1, 2, **17**, 34

      The factors of 51 are: 1, 3, **17**, 51

      Then the greatest common factor is 17.
    - **c)** The factors of 21 are: 1, **3**, 7, 21

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

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

      Then the greatest common factor is 3.
    - **d)** The factors of 10 are: **1**, 2, 5, 10

      The factors of 99 are: **1**, 3, 9, 11, 33, 99

      Then the greatest common factor is 1
    - **e)** The factors of 8 are: **1**, 2, 4, 8

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

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

      Then the greatest common factor is 1.
    - **f)** The factors of 35 are: 1, 5, **7**, 35

The factors of 91 are: 1, **7**, 13, 91

Then the greatest common factor is 7.

2. Find the HCF by prime factorization method.

a) The factors of 13 are: **1**, 13

The factors of 37 are: **1**, 37

Then the greatest common factor is 1.

b)

The factors of 17 are: **1**, 17

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

Then the greatest common factor is 1.

c)

The factors of 14 are: **1**, 2, 7, 14

The factors of 57 are: **1**, 3, 19, 57

Then the greatest common factor is 1.

d) The factors of 15 are: 1, 3, 5, **15**

The factors of 90 are: 1, 2, 3, 5, 6, 9, 10, **15**, 18, 30, 45, 90

Then the greatest common factor is 15.

3. Find the greatest number which divides the following completely.

a) The factors of 35 are: 1, **5**, 7, 35

The factors of 65 are: 1, **5**, 13, 65

Then the greatest common factor is 5.

b) The factors of 11 are: 1, **11**

The factors of 88 are: 1, 2, 4, 8, **11**, 22, 44, 88

Then the greatest common factor is 11

c) The factors of 30 are: 1, 2, 3, 5, 6, 10, **15**, 30

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

Then the greatest common factor is 15.

d) The factors of 27 are: 1, **3**, 9, 27

The factors of 51 are: 1, **3**, 17, 51

Then the greatest common factor is 3

4. **Which is smallest number that can be multiple of the following.**

a)

Multiples of 20:
20, 40, 60, 80, 100, 120, 140, 160, 180, **200**, 220, 240

Multiples of 25:
25, 50, 75, 100, 125, 150, 175, **200**, 225, 250

Multiples of 40:
40, 80, 120, 160, **200**, 240, 280

Therefore,

LCM(20, 25, 40) = 200

b) .

Multiples of 35:
35, 70, 105, 140, 175, 210, 245, 280, 315, 350, 385, 420, 455, 490, 525, 560, 595, **630**, 665, 700

Multiples of 90:
90, 180, 270, 360, 450, 540, **630**, 720, 810

Therefore,

LCM(35, 90) = 630

c) Multiples of 24:
24, 48, 72, 96, 120, 144, 168, 192, 216, 240, 264, 288, 312, 336, 360, 384, 408, 432, 456, 480, 504, 528, 552, 576, 600, 624, 648, 672, 696, 720, 744, 768, 792, 816, **840**, 864, 888

Multiples of 42:
42, 84, 126, 168, 210, 252, 294, 336, 378, 420, 462, 504, 546, 588, 630, 672, 714, 756, 798, **840**, 882, 924

Multiples of 60:
60, 120, 180, 240, 300, 360, 420, 480, 540, 600, 660, 720, 780, **840**, 900, 960

Therefore,

LCM(24, 42, 60) = 840

d) Multiples of 56:
56, 112, **168**, 224, 280

Multiples of 84:
84, **168**, 252, 336

Therefore,

LCM(56, 84) = 168

5. **Choose the correct answer for the prime factorization of 27.**

(c). 3 × 3 × 3

Exercise 3A

1. **Solve the following.**

(a) $\frac{1}{2}-\frac{1}{4}+\frac{7}{4}=\frac{16-8+56}{32}=\frac{64}{32}=2$

(b) $\frac{1}{2}+\frac{2}{3}=\frac{3+4}{6}=\frac{7}{6}$

(c) $\frac{2}{5}+\frac{4}{7}=\frac{14+20}{35}=\frac{34}{35}$

(d) $\frac{8}{12}+\frac{7}{11}=\frac{88+84}{132}=\frac{172}{132}=\frac{86}{66}=\frac{43}{33}$

(e) $\frac{3}{4}+\frac{5}{7}=\frac{21+20}{28}=\frac{41}{28}$

(f) $\frac{2}{5}+\frac{1}{4}=\frac{8+5}{20}=\frac{13}{20}$

(g) $\frac{2}{7}+\frac{1}{4}=\frac{8+7}{28}=\frac{15}{28}$

(h) $\frac{2}{12}+\frac{2}{4}=\frac{1}{6}+\frac{1}{2}=\frac{2+6}{12}=\frac{8}{12}=\frac{2}{3}$

(i) $\frac{6}{9}+\frac{1}{2}=\frac{12+9}{18}=\frac{21}{18}=\frac{7}{6}$

2. **Solve the following.**

a) $\frac{5}{7}-\frac{2}{3}=\frac{15-14}{21}=\frac{1}{21}$

b) $\frac{4}{6}-\frac{4}{8}=\frac{32-24}{48}=\frac{8}{48}=\frac{1}{6}$

c) $\frac{2}{3}-\frac{3}{8}=\frac{16-9}{24}=\frac{7}{24}$

d) $\frac{5}{7}-\frac{2}{6}=\frac{30-14}{42}=\frac{16}{42}=\frac{8}{21}$

e) $\frac{6}{10}-\frac{4}{8}=\frac{48-40}{80}=\frac{8}{80}=\frac{1}{10}$

f) $\frac{4}{5}-\frac{2}{3}=\frac{12-10}{15}=\frac{2}{15}$

g) $\frac{2}{3}-\frac{1}{6}=\frac{12-3}{18}=\frac{9}{18}=\frac{1}{2}$

h) $\frac{8}{12}-\frac{1}{5}=\frac{40-12}{60}=\frac{28}{60}=\frac{14}{30}=\frac{7}{15}$

i) $\frac{6}{9}-\frac{2}{5}=\frac{30-18}{45}=\frac{22}{45}$

3. $\frac{5}{8}-\frac{5}{12}=\frac{60-40}{96}=\frac{20}{96}=\frac{10}{48}=\frac{5}{24}$

4. $\frac{2}{3}+\frac{5}{12}=\frac{24-15}{36}=\frac{9}{36}=\frac{1}{4}$

5. $\frac{5}{6}+\frac{3}{10}=\frac{50-18}{60}=\frac{32}{60}=\frac{16}{30}=\frac{8}{15}$

$\frac{8}{15}-\frac{1}{5}=\frac{40-15}{75}=\frac{25}{75}=\frac{1}{3}$

6. $\frac{3}{5}-\frac{4}{15}=\frac{45-20}{75}=\frac{25}{75}=\frac{1}{3}$

$\frac{1}{3}$ **is added.**

7. $\frac{7}{9}-\frac{2}{3}=\frac{21-18}{27}=\frac{3}{27}=\frac{1}{9}$

8. $\frac{5}{6}+\frac{5}{6}=\frac{30+30}{36}=\frac{60}{36}=\frac{10}{6}=\frac{5}{3}$

$\frac{5}{3}+\frac{4}{9}=\frac{45+12}{27}=\frac{57}{27}=\frac{19}{9}$

Exercise 3B

1. **Add the following.**

a.

$$\frac{5}{6}+\frac{2}{7}+\frac{1}{2}=\frac{70+24+42}{84}=\frac{136}{84}=\frac{34}{21}$$

b.

$$\frac{11}{16}+\frac{10}{12}+\frac{6}{8}=\frac{11}{16}+\frac{5}{6}+\frac{3}{4}$$
$$=\frac{11}{16}+\frac{5}{6}+\frac{3}{4}=\frac{264+320+288}{384}$$
$$=\frac{872}{384}=\frac{436}{192}=\frac{218}{96}=\frac{109}{48}$$

c.

$$\frac{2}{3}+\frac{8}{9}+\frac{4}{5}=\frac{90+120+108}{135}=\frac{318}{135}$$
$$=\frac{106}{45}$$

d.

$$\frac{1}{2}+\frac{3}{4}+\frac{5}{6}=\frac{24+36+40}{48}=\frac{108}{48}$$
$$=\frac{54}{24}$$

e.

$$\frac{2}{3}+\frac{8}{9}+\frac{4}{5}=\frac{90+120+108}{135}=\frac{318}{135}$$
$$=\frac{106}{45}$$

f. $$\frac{9}{14}+\frac{4}{7}+\frac{11}{28}=\frac{18+16+11}{28}=\frac{45}{28}$$

g.

$$\frac{4}{6}+\frac{1}{2}+\frac{6}{8}=\frac{64+48+72}{96}=\frac{184}{96}=\frac{92}{48}=\frac{46}{24}$$
$$=\frac{23}{12}$$

h.

$$\frac{12}{16}+\frac{6}{8}+\frac{3}{4}=\frac{3}{4}+\frac{3}{4}+\frac{3}{4}=\frac{3+3+3}{4}=\frac{9}{4}$$

i. $$\frac{2}{3}+\frac{1}{2}+\frac{5}{7}=\frac{28+21+30}{42}=\frac{79}{42}$$

j.

$$\frac{16}{20}+\frac{8}{10}+\frac{4}{5}=\frac{4}{5}+\frac{4}{5}+\frac{4}{5}=\frac{4+4+4}{5}=\frac{12}{5}$$

k.

$$\frac{14}{36}+\frac{5}{18}+\frac{7}{9}=\frac{7}{18}+\frac{5}{18}+\frac{7}{9}=\frac{7+5+14}{18}=\frac{26}{18}$$
$$=\frac{13}{9}$$

l.

$$\frac{8}{12}+\frac{1}{4}+\frac{13}{24}=\frac{2}{3}+\frac{1}{4}+\frac{13}{24}=\frac{16+6+13}{24}=\frac{35}{24}$$

3. Find the difference of the following.

a) $$\frac{3}{5}-\frac{5}{20}=\frac{12-5}{20}=\frac{7}{20}$$

b) $$\frac{3}{7}-\frac{5}{14}=\frac{6-5}{14}=\frac{1}{14}$$

c) $$\frac{19}{21}-\frac{1}{7}=\frac{19-3}{21}=\frac{16}{21}$$

d) $$\frac{4}{5}-\frac{3}{25}=\frac{20-3}{25}=\frac{17}{25}$$

e) $$\frac{3}{16}-\frac{1}{8}=\frac{3-2}{16}=\frac{1}{16}$$

f) $$\frac{23}{24}-\frac{2}{3}=\frac{23-16}{24}=\frac{7}{24}$$

4. Solve and simplify the following.

a) $\frac{2}{5}+\frac{1}{3}-\frac{1}{4}=\frac{24+20-15}{60}=\frac{29}{60}$

b) $3+\frac{1}{2}-\frac{1}{4}=\frac{24+4-2}{8}=\frac{26}{8}=\frac{13}{4}$

c) $\frac{3}{4}\times\frac{16}{9}=\frac{4}{3}$

5. $\frac{4}{5}-\frac{1}{10}-\frac{3}{20}=\frac{16-2-3}{20}=\frac{11}{20}$

6. 13 slices are left

7.

$\frac{3}{8}+\frac{5}{12}=\frac{36+40}{96}=\frac{76}{96}=\frac{38}{48}=\frac{19}{24}$

8. $\frac{5}{6}$

9.
$\frac{2}{5}+\frac{1}{4}=\frac{8+5}{20}=\frac{13}{20}$
$\frac{4}{5}-\frac{13}{20}=\frac{16-13}{20}=\frac{13}{20}$

Exercise 3C

1. Solve the following and demonstrate diagrammatically.

a) $\frac{1}{7}\times 21=3$

b) $\frac{2}{5}\times 35=2\times 7=14$

c) $\frac{2}{3}\times 81=2\times 27=57$

d) $\frac{3}{4}\times 24=3\times 6=18$

e) $\frac{1}{5}\times 3\frac{3}{5}=\frac{1}{5}\times\frac{18}{5}=\frac{18}{25}$

f) $\frac{1}{2}\times 9\frac{1}{2}=\frac{1}{2}\times\frac{19}{2}=\frac{19}{4}$

g) $\frac{1}{10}\times 360=36$

h) $\frac{2}{5}\times 3\frac{3}{4}=\frac{2}{5}\times\frac{15}{4}=\frac{6}{2}=3$

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

2. Evaluate the following.

(a). $\frac{3}{4}\times\frac{16}{9}=\frac{4}{3}$

(b). $\frac{2}{3}\times 3\frac{1}{4}=\frac{2}{3}\times\frac{13}{4}=\frac{13}{6}$

(c). $\frac{9}{28}\times 4\frac{1}{3}=\frac{9}{28}\times\frac{13}{3}=\frac{39}{28}$

(d). $\frac{5}{6}\times\frac{36}{25}\times\frac{2}{3}=\frac{2}{5}\times\frac{2}{1}=\frac{4}{5}$

(e). $2\frac{2}{3}\times 3\frac{3}{4}=\frac{8}{3}\times\frac{15}{4}=10$

(f). $1\frac{1}{2}\times 1\frac{1}{3}\times 1\frac{1}{4}=\frac{3}{2}\times\frac{4}{3}\times\frac{5}{4}=\frac{5}{2}$

(g).

$3\frac{1}{3}\times 2\frac{2}{5}\times 1\frac{1}{7}=\frac{10}{3}\times\frac{12}{5}\times\frac{8}{7}=\frac{64}{7}$

(h). $22\frac{2}{3}\times 3\frac{1}{7}=\frac{68}{3}\times\frac{22}{7}=\frac{1496}{21}$

(i).

$3\frac{1}{2}\times 2\frac{1}{5}\times\frac{25}{35}=\frac{7}{2}\times\frac{11}{5}\times\frac{5}{7}=\frac{11}{2}$

(j).

$40\frac{5}{8}\times 2\frac{2}{5}=\frac{325}{8}\times\frac{12}{5}=\frac{390}{4}=\frac{195}{2}$

(k).

$40\frac{5}{8}\times 2\frac{2}{5}=\frac{325}{8}\times\frac{12}{5}=\frac{390}{4}=\frac{195}{2}$

(l) $18\frac{2}{3}\times 3\frac{3}{8}=\frac{56}{3}\times\frac{27}{8}=63$

3. $5\frac{1}{3}\times 2\frac{1}{4}=\frac{16}{3}\times\frac{9}{4}=12$

4. $15\frac{2}{3}\times 22\frac{4}{7}=\frac{47}{3}\times\frac{158}{7}=\frac{7426}{21}$

5. $\frac{3}{4}\times 24=18$ hours

6. $\frac{2}{3}\times 9=6$ hours

7. $50-\frac{3}{5}=\frac{250-3}{5}=\frac{247}{5}=49.6$

8. $45\frac{1}{2}\times 7\frac{1}{3}=\frac{91}{2}\times\frac{22}{3}=\frac{1001}{3}$

9. $\frac{2}{3}$apples ,$\frac{1}{6}$banana , $107\frac{1}{6}$ mangoes.

Exercise 3D

1. **Simplify the following.**

(a). $5\div\frac{2}{11}=5\times\frac{11}{2}=\frac{55}{2}$

(b). $6\div\frac{9}{5}=6\times\frac{5}{9}=\frac{30}{9}=\frac{10}{3}$

(c). $\frac{5}{8}\div 3=\frac{8}{5}\times 3=\frac{24}{5}$

(d). $\frac{6}{11}\div 15=\frac{11}{6}\times 15=\frac{165}{6}$

(e).

$6\frac{4}{5}\div\frac{7}{35}=\frac{34}{5}\div\frac{1}{5}=\frac{34}{5}\times 5=34$

(f).

$\frac{16}{7}\div\frac{28}{42}=\frac{16}{7}\div\frac{2}{3}=\frac{16}{7}\times\frac{3}{2}=\frac{24}{7}$

(g). $\frac{8}{27}\div\frac{16}{9}=\frac{8}{27}\times\frac{9}{16}=\frac{1}{6}$

(h). $\frac{9}{35}\div\frac{1}{7}=\frac{9}{35}\times 7=\frac{9}{5}$

(i). $\frac{4}{169}\div\frac{8}{13}=\frac{4}{169}\times\frac{13}{8}=\frac{1}{26}$

(j). $25\frac{1}{2}\div\frac{8}{13}=\frac{51}{2}\times\frac{13}{8}=\frac{663}{16}$

(k).

$\frac{28}{15}\div\frac{4}{35}=\frac{28}{15}\times\frac{35}{4}=\frac{7}{3}\times 7=\frac{49}{3}$

(l). $\frac{343}{64}\div\frac{7}{8}=\frac{343}{64}\times\frac{8}{7}=\frac{49}{8}$

2. **Evaluate the following.**

(a). $\frac{3}{7}\div\frac{2}{9}=\frac{3}{7}\times\frac{9}{2}=\frac{27}{14}$

(b).

$7\frac{1}{2}\div 6\frac{2}{3}=\frac{15}{2}\div\frac{20}{3}=\frac{15}{2}\times\frac{3}{20}=\frac{9}{8}$

(c).

$2\frac{1}{5}\div\frac{6}{11}=\frac{11}{5}\div\frac{6}{11}=\frac{11}{5}\times\frac{11}{6}=\frac{121}{30}$

3. $7\frac{1}{3} \div \frac{1}{3} = \frac{22}{3} \div \frac{1}{3} = \frac{22}{3} \times 3 = 22$

4. $3 \div \frac{2}{3} = 3 \times \frac{3}{2} = \frac{9}{2}$

Exercise 3E

1. $25\frac{1}{5} \div 14 = \frac{126}{5} \div 14 = \frac{126}{5} \times \frac{1}{14} = \frac{9}{5}$

2. $24 - \frac{3}{8} = \frac{192-3}{8} = \frac{189}{8} = 23.6$

3. $\frac{4}{9} \div \frac{7}{17} = \frac{4}{9} \times \frac{17}{7} = \frac{68}{63}$

4. $125 \div \frac{3}{5} = 125 \times \frac{5}{3} = \frac{625}{3}$

5. $28\frac{1}{8} \div 2\frac{1}{4} = \frac{225}{8} \div \frac{9}{4} = \frac{225}{8} \times \frac{4}{9} = \frac{25}{2}$

6. $160 \div \frac{7}{8} = 160 \times \frac{8}{7} = \frac{1280}{7}$

7. $6\frac{1}{2} \div 5\frac{3}{8} = \frac{13}{2} \div \frac{43}{8} = \frac{13}{2} \times \frac{8}{43} = \frac{52}{43}$

8. $20 \div \frac{7}{10} = 20 \times \frac{10}{7} = \frac{30}{7}$

9. $17 \div 58\frac{13}{20} = 17 \div \frac{1173}{20} = 17 \times \frac{20}{1173} = \frac{20}{69}$

10. $30\frac{3}{8} \div 2\frac{1}{40} = \frac{243}{8} \div \frac{81}{40} = \frac{243}{8} \times \frac{40}{81} = \frac{15}{1}$

11. $5\frac{1}{4} \div \frac{1}{8} = \frac{21}{4} \div \frac{1}{8} = \frac{21}{4} \times 8 = 42$

12. $15\frac{5}{6} \div 6\frac{1}{3} = \frac{95}{6} \div \frac{19}{3} = \frac{95}{6} \times \frac{3}{19} = \frac{5}{2}$

13. $42 \div 9\frac{4}{5} = 42 \div \frac{49}{5} = 42 \times \frac{5}{49} = \frac{210}{49}$

14. $\frac{7}{9} \div 36 = \frac{9}{7} \times 36 = \frac{324}{7}$

Unit 4

Exercise 4A

1. **Compare the following decimals using < ,> or =.**
   - **a)** <
   - **b)** >
   - **c)** =
   - **d)** >
   - **e)** <
   - **f)** >
   - **g)** >
   - **h)** >
   - **i)** >
   - **j)** =
   - **k)** >
   - **l)** >

2. **Write the following decimal numbers in descending order.**
   - **a)** 4.85 , 3.32 , 2.32 , 1.42 , 1.05
   - **b)** 8.73 , 8.61 , 8.57 , 8.41 , 8.20
   - **c)** 9.64 , 7.98 , 5.55 , 4.78 , 3.61
   - **d)** 9.25 , 7.64 , 5.13 , 2.37 , 1.11
   - **e)** 5.99 , 4.56 , 3.18 , 3.14 , 1.02
   - **f)** 47.5 , 47.5 , 32.8 , 20.8 , 4.2
3. **Write the following decimal numbers in ascending order.**
   - **a)** 6.2 , 8.4 , 9.2 , 9.8 , 11.4
   - **b)** 3.5 , 3.55 , 4.05 , 5.09 , 5.52
   - **c)** 2.79 , 3.47 , 4.16 , 6.49 , 9.13
   - **d)** 1.10 , 3.22 , 3.94 , 5.78 , 6.58
   - **e)** 1.07 , 3.17 , 4.01 , 4.21 , 9.16
   - **f)** 4.5 , 4.6 , 4.73 , 4.75 , 4.39

Exercise 4B

1. **Add:**

6	.	3	2
+8	.	5	7
1	**4.**	**89**	

b.

	1	6	.	5
+1	2	.	3	2
2	**8**	**.**	**8**	**2**

c.

37.35
+12.06
8
57.41

d.

16
44.37
+12.57
72.94

e.

15.07
+9.5
24.57

f.

26.40
+18.53
44.9

g.

13.5
27.43

+8.56
49.49

h.

72.42 27.5 +31.92
131.84

2. Solve the following.

12.7 +17.32
30.02

b.

42.15 16.3 +64.29
122.74

c.

16.25 8 +6.35
30.06

d.

21.5 36.27 +48
105.77

3. Subtract

10.16 -5.29
4.87

b.

38.457 -14.3
24.157

c.

76.25 -48
28.25

d.

15.5 -12.47
3.03

e.

56.00 -27.39
28.61

f.

93.58 -83.56

10.02

4. Solve the following.

8.47 -3.5
4.97

b.

41.03 -16.32
24.71

C.

16.79 -7.60
9.19

d.

76.4 -21.57
54.83

e.

38.2 -11.563
26.637

f.

18.2 -14.57
3.63

5.

45.50 +26.25
71.75

6.

15.75 25.00 +6.50
47.25

7.

38.50 -16.25
22.25

Exercise 4C

1. Solve the following.

a)

94.6 ×11
1040.6

b)

5.64 ×2
11.28

c)

3.49 ×7
24.43

d)

0.85 ×21
17.85

e)

15.3 ×9
137.7

f)

2.65 ×13
34.45

g)

6.32 ×124
783.68

h)

0.14 ×69
9.66

i)

0.25 ×27
6.75

j)

0.08 ×8

0.64

k)

0.07 ×3
0.21

l)

3.14 ×12
37.68

2. Solve the following.

a)

6.17 ×10
61.7

b)

4.07 ×10
40.7

c)

4.79 ×100
479

d)

0.01 ×100
1

e)

3.61 ×10

36.1

f)

2.96 ×10
29.6

g)

0.36 ×100
36

h)

8.91 ×10
89.1

i)

0.73 ×1000
730

j)

0.09 ×1000
90

k)

9.45 ×100
945

l)

9.85 ×10
98.5

3. Solve the following.

a)

23.2 ×1.96
45.472

b)

2.6 ×1.8
4.68

c)

87.5 ×0.2
17.5

d)

45.2 ×0.5
22.6

e)

91.2 ×4.1
373.92

f)

40.6 ×0.3
12.18

g)

94.6 ×1.8
170.28

h)

02.4

×0.4
0.96

i)

8.75 ×0.2
1.75

4.

5.50 ×4.5
24.75

5.

5.25 ×19
99.75

6.

5.85 ×5.25
30.7125

7.

5.5 ×0.36
1.98

8.

6.75 ×3
20.25

Exercise 4D

1. **Solve the followings.**

a)

```
 028.
6|168.
 -0
  16
 -12
   48
  -48
    0
```

b)

```
 024.
4|096.
 -0
  09
 - 8
   16
  -16
    0
```

c)

092. 5 71428571428

```
7|648.000000000000
-0
 64
-63
  18
 -14
   40
  -35
    50
   -49
     10
    - 7
      30
     -28
       20
      -14
        60
       -56
         40
        -35
          50
         -49
           10
         - 7
           30
          -28
            20
           -14
             60
            -56
              4
```

d)

```
  134.333333333333
6|806.000000000000
-6
 20
-18
 26
-24
  20
 -18
   20
  -18
    20
   -18
     20
    -18
      20
     -18
       20
      -18
        20
       -18
         20
        -18
          20
         -18
           20
          -18
            20
           -18
             20
            -18
              2
```

e)

```
  057.
5|285.
-0
 28
-25
  35
 -35
```

```
  0
```

f)

```
257.
3|771.
-6
 17
-15
  21
 -21
   0
```

g)

```
 53.
0
12|636.
  -0
   63
  -60
    36
   -36
     0
```

h)

```
14.
13|182.
  -0
   18
  -13
    52
   -52
     0
```

i)

```
22.
14|308.
  -0
   30
  -28
    28
   -28
     0
```

j)

```
01.
8|008.
-0
 00
-  0
   08
-  8
   0
```

k)

```
 0.
5
006|300.
   -0
    30
   -30
     00
```

- 0

0

l)

27.

01 2|324.

- 0

32

- 24

84

- 84

0

2. **Find the quotient of the following.**

a)

027.5

10|275.0

- 0

27

- 20

75

- 70

50

- 50

0

b)

9.340

10|93.400

90

34

30

40

40

0

0

0

Quotient = 9.340

c)..

0.580

10|5.80

0

58

50

80

80

0

0

0

Quotient = 0.580

d)..

0.008

100|0.8

0

8

0

80

00

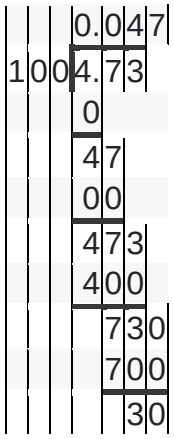
800

800

0

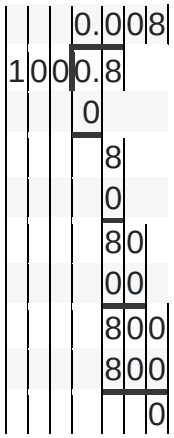
Quotient = 0.008

e).



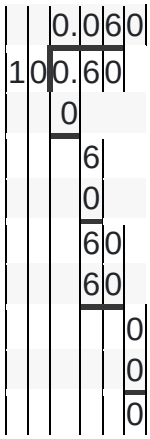
Quotient = 0.047

f).



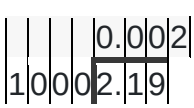
Quotient = 0.008

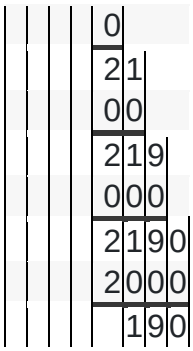
g)..



Quotient = 0.060

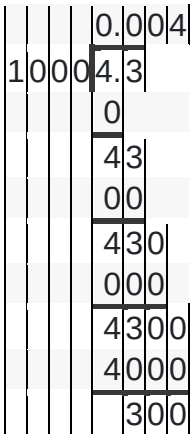
h).





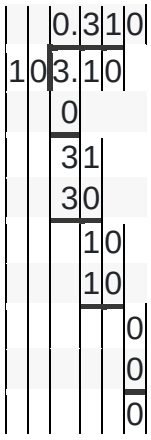
Quotient = 0.002

i).



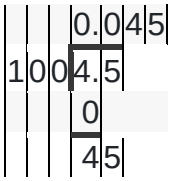
Quotient = 0.004

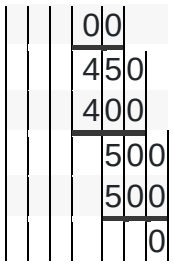
j).



Quotient = 0.310

k).





Quotient = 0.045

3. Find the missing number.

a) 4.58

b) 100

c) 100

d) 1000

e) 100

f) 100

g) 10

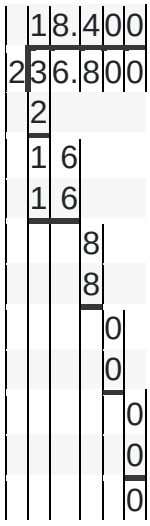
h) 10

i) 1000

4.

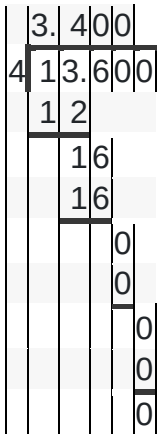
3.45
×15
51.75

5.



Quotient = 18.400

7.

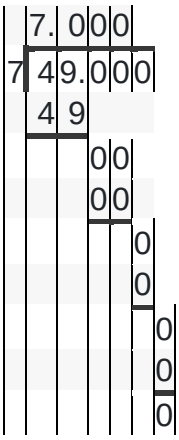


Quotient = 3.400

Exercise 4E

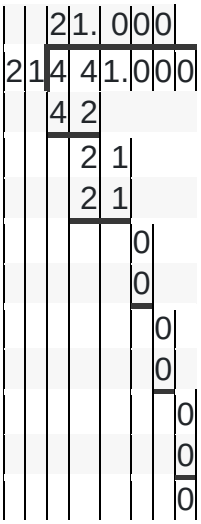
1. Solve the following.

a)



Quotient = 7.000

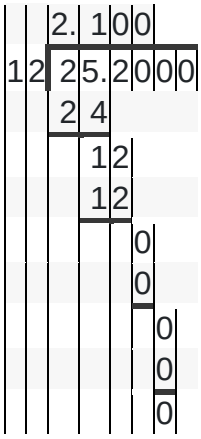
c)



Quotient = 21.000

e)

2.52 ÷ 1.2 = 25.2 ÷ 12



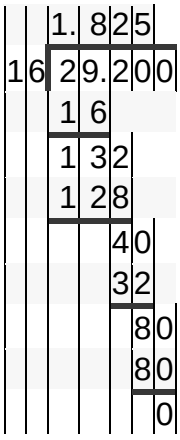
Quotient = 2.100

f)

The given Divisor = 1.6 and Dividend = 2.92

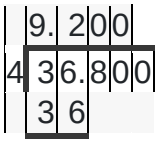
Change the divisor 1.6 to a whole number by moving the decimal point 1 places to the right. Then move the decimal point in the dividend the same, 1 places to the right.

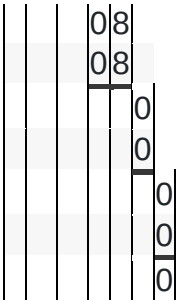
2.92 ÷ 1.6 = 29.2 ÷ 16



Quotient = 1.825

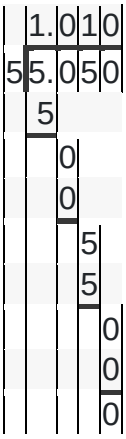
g). 3.68 ÷ 0.4 = 36.8 ÷ 4





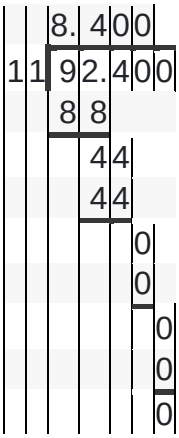
Quotient = 9.200

h).



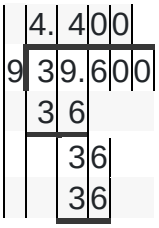
Quotient = 1.010

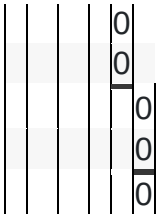
i). 9.24 ÷ 1.1 = 92.4 ÷ 11



Quotient = 8.400

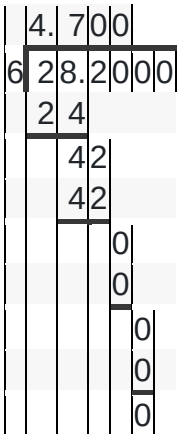
j). 3.96 ÷ 0.9 = 39.6 ÷ 9





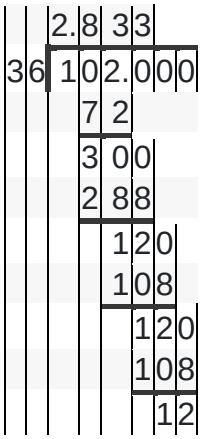
Quotient = 4.400

k). 2.82 ÷ 0.6 = 28.2 ÷ 6



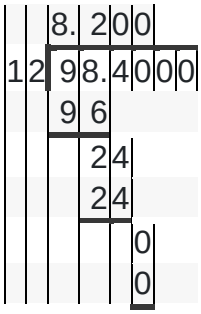
Quotient = 4.700

l). 1.02 ÷ 0.36 = 102.0 ÷ 36



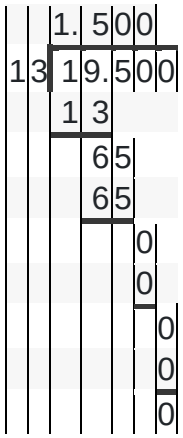
Quotient = 2.833

m). 9.84 ÷ 1.2 = 98.4 ÷ 12



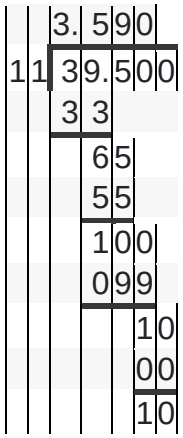
Quotient = 8.200

n). 1.95 ÷ 1.3 = 19.5 ÷ 13



Quotient = 1.500

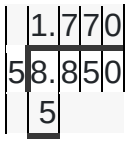
2. The given Divisor = 11 and Dividend = 39.5

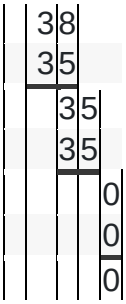


Quotient = 3.590

3.

The given Divisor = 5 and Dividend = 8.85

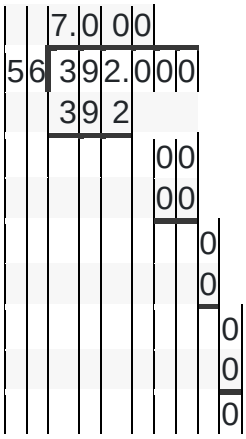




Quotient = 1.770

4.

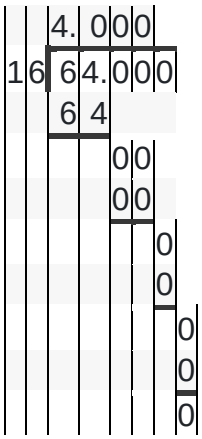
39.2 ÷ 5.6 = 392.0 ÷ 56



Quotient = 7.000

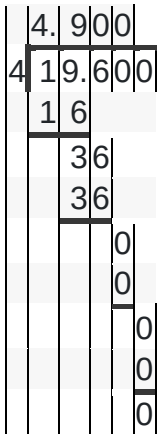
5.

6.40 ÷ 1.6 = 64.0 ÷ 16



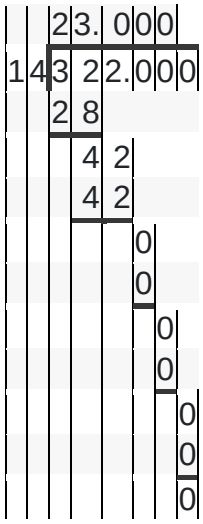
Quotient = 4.000

6.. The given Divisor = 4 and Dividend = 19.6



Quotient = 4.900

7.. 32.2 ÷ 1.4 = 322.0 ÷ 14

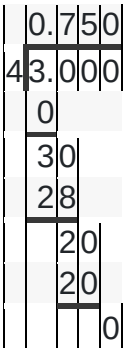


Quotient = 23.000

Exercise 4F

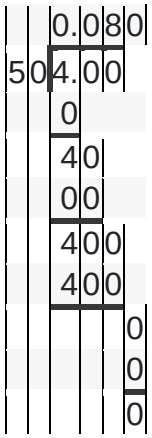
1. **Convert the following into decimals**

   a.



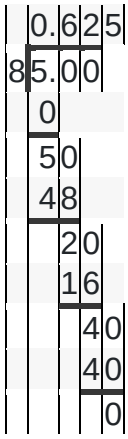
Quotient = 0.750

b.



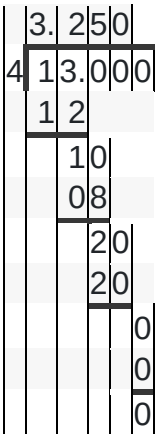
Quotient = 0.080

c.



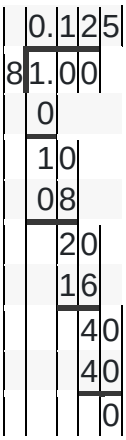
Quotient = 0.625

d.



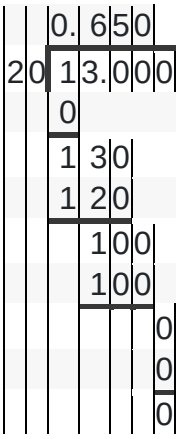
Quotient = 3.250

e.



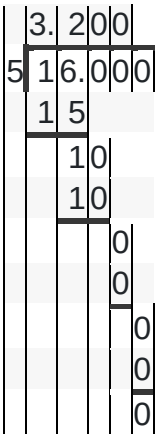
Quotient = 0.125

f.



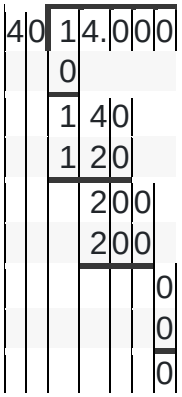
Quotient = 0.650

g.



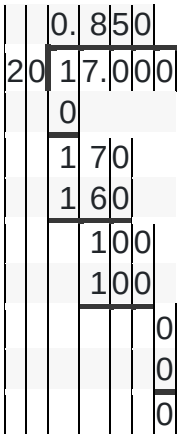
Quotient = 3.200

h.



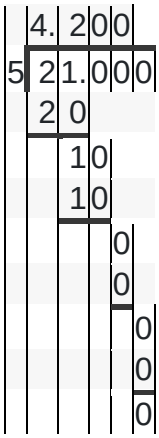
Quotient = 0.350

i..



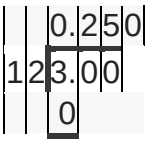
Quotient = 0.850

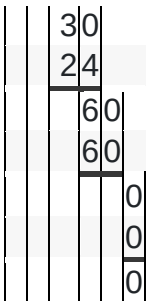
j.



Quotient = 4.200

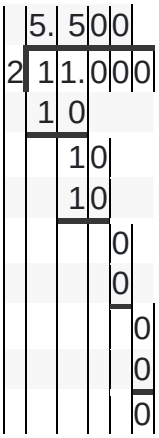
k.





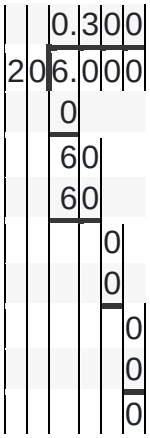
Quotient = 0.250

l.



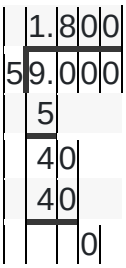
Quotient = 5.500

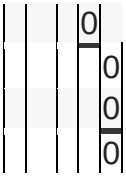
m.



Quotient = 0.300

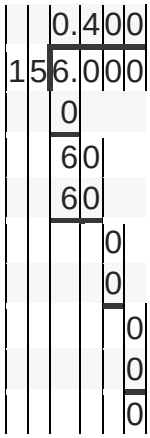
n.





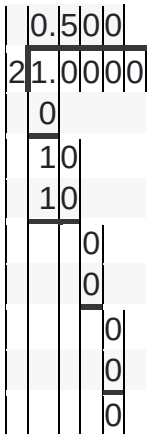
Quotient = 1.800

o.



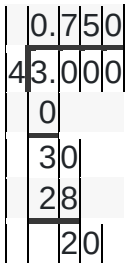
Quotient = 0.40

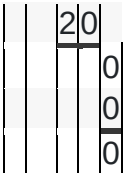
2.



Quotient = 0.500

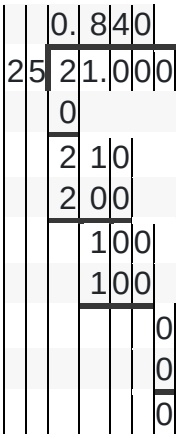
3..





Quotient = 0.750

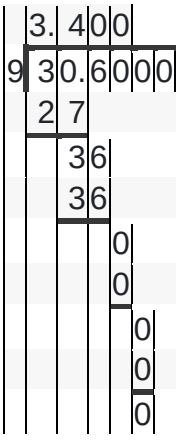
4..



Quotient = 0.840

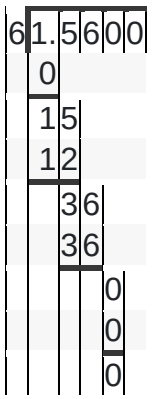
Exercise 4G

1.



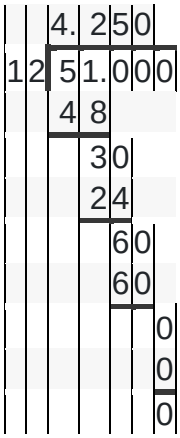
Quotient = 3.400

2..



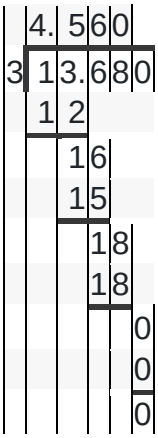
Quotient = 0.260

3..



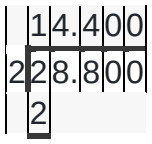
Quotient = 4.250

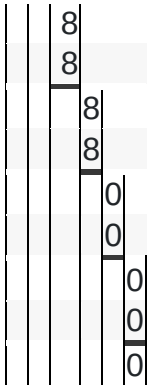
4..



Quotient = 4.560

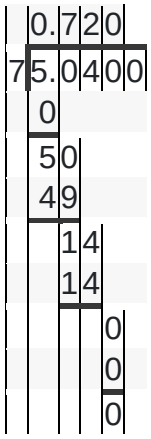
5..





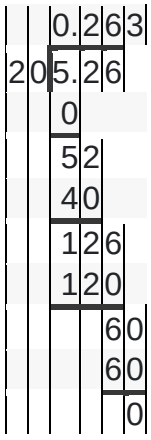
Quotient = 14.400

6..



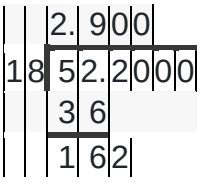
Quotient = 0.720

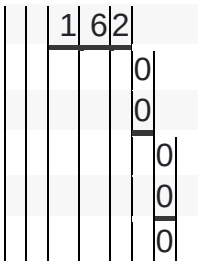
7..



Quotient = 0.263

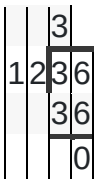
8..





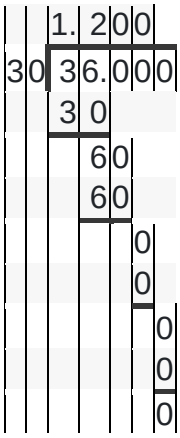
Quotient = 2.900

9.. petrol = 14.7-2.7= 12



The Quotient is 3 and the Remainder is 0

10..



Quotient = 1.200

Exercise 4H

1. **Round each of the following to the nearest tenth.**
   - **a)** 9
   - **b)** 4.4
   - **c)** 2.5
   - **d)** 6.3
   - **e)** 8.2
   - **f)** 3.5
   - **g)** 7
   - **h)** 4
   - **i)** 3
   - **j)** 1.2
   - **k)** 9
   - **l)** 6.1
   - **m)** 26
   - **n)** 14
   - **o)** 11
   - **p)** 27
2. **Round each of the following to the nearest hundredth.**
   - **a)** 5.9
   - **b)** 5
   - **c)** 5.99
   - **d)** 4.2
   - **e)** 0.04
   - **f)** 6.78
   - **g)** 1.46
   - **h)** 4.08
   - **i)** 6.32
   - **j)** 8.76
   - **k)** 9.042
   - **l)** 1.21
   - **m)** 6.7
   - **n)** 98.6
   - **o)** 29.2
   - **p)** 59.66
3. **Estimate each sum or difference.**
   - **a)** 136.7
   - **b)** 210.2
   - **c)** 24.44
   - **d)** 30.01
   - **e)** 12.15
   - **f)** 4.31
   - **g)** -197.4

h) 85.95

i) 41.08

j) 5.2

k) 111.1

l) 102.39

4.

86.50 -42.33
44.17

5.

50 -36.25
13.75

6.

3.25 -2.67
0.58

Ahmed won the race by 0.58 minute.

Exercise 4I

a) Look at the grid and fill the boxes.

a) Fraction = $\frac{7}{100}$

Percentage = 0.07%

b) Fraction = $\frac{28}{100}$

c) ..Percentage =0.28%

d)

e) Fraction = $\frac{35}{100}$

f) ..Percentage =0.35%

g)

h) ..Fraction = $\frac{51}{100}$

i) ..Percentage =0.51%

j)

k) Fraction = $\frac{34}{100}$

l) ..Percentage =0.34%

m)

n) ..Fraction = $\frac{9}{100}$

o) Percentage =0.09

b) Convert the percentage into fraction with the denominator of 100.

p) .. $\frac{54}{100}$

q)

r) .. $\frac{86}{100}$

s)

t) .. $\frac{6}{100}$

u)

v) . $\frac{10}{100}$

w)

x) . $\frac{100}{100}$

. $\frac{22}{100}$

c) 64%

4. Maria got

a) 67%

b) 86%

c) Science = 67/100

Maths = 86/100

5. Omer baked 100 cookies for the bake sale. He sold 95 of them.

a) 49%

b) 51%

c) $\frac{51}{100}$

Exercise 4J

1. **Complete the table.**

Percentage	Fraction	Decimal
27%	$\frac{27}{100}$	0.27
12%	$\frac{12}{100}$	0.12
56%	$\frac{56}{100}$	0.56
5%	$\frac{1}{20}$	0.05
6%	$\frac{6}{100}$	0.06
80%	$\frac{8}{10}$	0.8
90%	$\frac{90}{100}$	0.90
68%	$\frac{68}{100}$	0.68

2. **Convert these fractions to percentage using the denominator method.**

a). $\frac{1}{2}$ **=** $\frac{50}{100}$ **= 50%**

b). $\frac{7}{50}$ **=** $\frac{14}{100}$ =14%

d) $\frac{9}{10} = \frac{90}{100} = 90\%$

e)

d) $\frac{5}{2} = \frac{250}{100} = 250\%$

e) $\frac{11}{50} = \frac{22}{100}$ =22%

f) $\frac{8}{10} = \frac{80}{100} = 80\%$

g) $\frac{2}{5} = \frac{40}{100}$ =40%

h) $\frac{1}{20} = \frac{5}{100}$ =5%

i) $\frac{4}{25} = \frac{16}{100}$ =16%

j) $\frac{9}{50} = \frac{18}{100}$ =18%

2. **Work out the missing percentages in these word problems,**

a) 63%

b) 47%

c) 32%

d) 94%

e) 34%

f) 23%

4. 90 %

5. 50%

6. 17%

Unit 5

Distance and time

Exercise 5A

1. **Express the following lengths in meter.**

a) $7 \times 1000 = 7000m$

b) $21 \times 1000 = 21000m$

c) $5\times1000+352m=5000m+352m$
$=5,352m$

d) $12\times1000+85m=12000m+85m$
$=12085m$

e) $61\times1000+45m=61000m+45m$
$=61045m$

f) $100\times1000=100,000m$

g) $4\times1000=4,000m$

h) $8\times1000+107=8,000m+107m$
$=80107m$

2. Express the following lengths in kilometer.

a) $\frac{10001}{1000}=10.001km$

b) $\frac{67321}{1000}=67.32km$

c) $\frac{2730}{1000}=2.73km$

d) $\frac{3078}{1000}=3.07km$

3. Express the following lengths as required.

a) $900\times100=90000cm$

b) $600\times100+40cm=60040cm$

c) $\frac{489}{100}=4.8m$

d) $62\times1000+900m$
$=62000m+900m$
$=62,900m$

e) $385cm\times10=3850mm$

f) $98cm\times10+4=980+4mm$
$=984mm$

g) $\frac{820}{10}mm=82cm$

h) $62\times100=6200cm$

4. $3\times1000=3000$
$3000m+107m=3107m$

5. $120cm\times10=1200mm$

6. $5\times100=500cm$
$500cm+3cm=503cm$

7. $100m\times100cm=10,000cm$

8. $length1=270\times100+10=27010$
$length2=310\times100+5=31005$

27010 +31005
58015

5km110m -3km98m
2km12m

9.
Ali's house is near to market by 2km 12m.

10.

3m50cm -1m25cm
2m25cm

11.

604m -462m
142m

Exercise 5B

1. **Convert the following hours to minutes.**
   - **a)** $5\times 60 = 300\,\text{min}$
   - **b)** $3\times 60 = 180\,\text{min}$
   - **c)** $7\times 60 = 420\,\text{min}$
   - **d)** $12\times 60 = 720\,\text{min}$
   - **e)** $14\times 60 = 840\,\text{min}$
   - **f)** $11\times 60 = 660\,\text{min}$
   - **g)** $8\times 60 = 480\,\text{min}$
   - **h)** $4\times 60 + 33 = 273\,\text{min}$
2. **Convert the following minutes into hours.**
   - **a)** $\frac{60}{60} = 1 hour$
   - **b)** $\frac{600}{60} = 10 hour$
   - **c)** $\frac{330}{60} = 5.5 hour$
   - **d)** $\frac{90}{60} = \frac{3}{2} hour$
   - **e)** $\frac{240}{60} = 4 hour$
   - **f)** $\frac{540}{60} = 9 hour$
   - **g)** $\frac{65}{60} = \frac{13}{12} = 1.08 hour$
   - **h)** $\frac{85}{60} = \frac{17}{12} = 1.4 hour$
3. **Convert the following minutes into seconds.**
   - **a)** $13\times 60 = 780\,\text{sec}$
   - **b)** $9\times 60 = 540\,\text{sec}$
   - **c)** $11\times 60 = 660\,\text{sec}$
   - **d)** $5\times 60 = 300\,\text{sec}$
   - **e)** $15\times 60 = 900\,\text{sec}$
   - **f)** $1\times 60 = 60\,\text{sec}$
   - **g)** $3\times 60 + 20 = 200\,\text{sec}$
   - **h)** $20\times 60 = 1200\,\text{sec}$
4. **Convert the following seconds into minutes.**
   - **a)** $\frac{360}{60} = 6\,\text{min}$
   - **b)** $\frac{120}{60} = 2\,\text{min}$
   - **c)** $\frac{840}{60} = 14\,\text{min}$
   - **d)** $\frac{240}{60} = 4\,\text{min}$
   - **e)** $\frac{600}{60} = 10\,\text{min}$
   - **f)** $\frac{720}{60} = 12\,\text{min}$
   - **g)** $\frac{840}{60} = 14\,\text{min}$
   - **h)** $\frac{960}{60} = 16\,\text{min}$

Exercise 5C

1. **Convert the following months to year.**
   - **a)** $\frac{24}{12} = 2 years$
   - **b)** $\frac{60}{12} = 5 years$
   - **c)** $\frac{108}{12} = 9 years$
   - **d)** $\frac{40}{12} = 3.3 years$
2. **Convert the following years to months.**
   - **a)** $4\times 12 = 48 months$
   - **b)** $10\times 12 = 120 months$
   - **c)** $2\times 12 = 24 months$
   - **d)** $3\times 12 + 5 = 41 months$
3. **Convert the following months to days.**
   - **a)** $3\times 30 = 90 days$

b) $5 \times 30 = 150 days$

c) $8 \times 30 = 240 days$

d) $1 \times 30 = 30 days$

4. **Convert the following days to months.**

a) $\frac{80}{30} = 2.6 months$

b) $\frac{56}{30} = 1.8 months$

c) $\frac{112}{30} = 3.7 months$

d) $\frac{187}{30} = 6.2 months$

5. **Convert the following weeks to days.**

a) $2 \times 7 = 14 days$

b) $14 \times 7 = 98 days$

c) $7 \times 7 = 49 days$

d) $11 \times 7 = 77 days$

6. **Convert the following days to week.**

a) $\frac{70}{7} = 10 weeks$

b) $\frac{84}{7} = 12 weeks$

c) $\frac{54}{7} = 7.7 weeks$

d) $\frac{63}{7} = 9 weeks$

7. One week= 7 days
$2 \times 7 = 14 days.$

8. One month = 30 days
$\frac{60}{30} = 2 months$

Exercise 5D

1. **Add the following.**

a) 12 hours 55 minutes

b) 18 hours 42 min

c) 28 hours 36 min

d) 22 hours 85 min

e) 13 hours 72 min

f) 24 hours 72 min

g) 32 hour 69 min

2. **Subtract the following.**

a) 13 hours 10 min

b) 12 hours 5 min

c) 9 hours 38 min

d) 16 hours 12 min

e) 7 hours 15 min

f) 4 hours 15 min

g) 1 hour 20 min

Exercise 5E

12hours 25 min -8hours 40 min
4hours 15 min

1.

2. $3 \times 7 = 21 days$

3. $\frac{42}{7} = 6 weeks$

4. $15 \times 60 = 900 \sec$

5. $\frac{180}{60} = 3 \min$

6. January = 31
February = 29
March = 31
31+29+31=91 days

7. July = 31 days
August = 31 days
31+31=62 days.

8. July = 31
August = 31
September = 30
October = 31
November = 30
December = 31
31+31+30+31+30+30=184 days

9. $45 \times 60 = 2700 \text{sec}$

10. $\frac{4800}{60} = 80 \text{min}$

11. Convert the shorter time unit in the following.

a) 49
b) 18000 sec
c) 300 min
d) 360 min
e) 63 days
f) 2160 sec

12. Convert the longer time unit in the following/

a) 5
b) 12 hours
c) 7 months
d) 6 min
e) 3 weeks
f) 16 minutes

Unit 6

Exercise 6A

1.

30
×38
1140

2..

32430
×9
291870

3..

44
×100
4400

4..

18
×150
2700

5..

80
×18
1440

6..

40
×8
320

7..

100
×5
500

8..

35
×7
245

Exercise 6B

1. $\frac{3866}{10} = 387$
2. $\frac{360}{18} = 20Rs$
3. $\frac{36}{12} = 2$
4. $\frac{9440}{20} = 472$
5. $\frac{3000}{5} = 600$
6. $\frac{100}{10} = 10$
7. $\frac{592}{16} = 37$
8. $\frac{1750}{5} = 350$

Exercise 6C

1. $\frac{120}{20} = 6$
   $6 \times 100 = 600$
2. $\frac{5000}{10} = 500$
   $500 \times 40 = 20,000$
3. $\frac{120}{12} = 10$
   $10 \times 30 = 300$
4. $\frac{60000}{5} = 12000$
   $12000 \times 20 = 240000$
5. $\frac{540}{30} = 18$
   $18 \times 20 = 360$
6. $\frac{10}{2} = 5$
   $5 \times 5 = 25km$
7. $\frac{48}{6} = 8$
   $8 \times 9 = 72$
8. $\frac{360}{6} = 60$
   $60 \times 7 = 420km$
9. $\frac{20}{4} = 5$
   $5 \times 8 = 40$
10. $\frac{24}{3} = 8$
    $8 \times 4 = 32$
11. $\frac{105}{7} = 15$
    $15 \times 5 = 75$
12. $\frac{4}{2} = 2$
    $2 \times 6 = 12$
13. $\frac{432}{4} = 108$
    $108 \times 10 = 1080$
14. $\frac{600}{20} = 30$
    $30 \times 9 = 270$
15. $\frac{294}{7} = 42$
    $42 \times 2 = 84$
16. $\frac{128}{16} = 8$
    $8 \times 3 = 24$

Unit 7

Exercise 7A

1. **Look at the following objects and identify the types of drawn angle.**
   a) Right angle

b) Straight angle
c) Reflex angle
d) Straight angle
e) Right angle
f) Reflex angle

2. **Complete the statements describing the angles.**
   a) 180 ° pencil , balance swing
   b) More than 180° and less than 360° pizza , bended man
   c) 90° door , 9'o clock in clock

Exercise 7B

1. **Look at the angles and classify them.**
   a) Obtuse angle
   b) Right angle
   c) Acute angle
   d) Obtuse angle
   e) Right angle
   f) Acute angle
2. **Choose the best estimate of the size of the angles shown.**
   a) 45°
   b) 90°
   c) 105°
   d) 120°
   e) 70°
   f) 180°
   g) 200°
   h) 275°

Exercise 7E

2.. State whether the given pairs of angles are complementary or not.
a) Complementary angle
b) Not complementary
c) Not complementary
d) Complementary angle
e) Complementary angle
f) Not complementary

3. **Find the complement of the each angle.**
   a) 27°
   b) 52°
   c) 3°
   d) 19°

Exercise 7F

1. **Find the supplement of each angle.**
   a) 72°
   b) 144°
   c) 175°
   d) 14°
2. **State whether the given pairs are supplement or not.**
   a) Supplementary angle
   b) Not supplementary
   c) Not supplementary
   d) Supplementary angle
   e) Supplementary angle
   f) Not supplementary
3. **Find the supplementary angle of each of the following angles.**
   a) 23°
   b) 152°
   c) 59°
   d) 128°

Exercise 7G

1. **Classify the following triangle.**
    - **a)** Scalene triangle
    - **b)** Equilateral triangle
    - **c)** Isosceles triangle
    - **d)** Isosceles triangle
    - **e)** Equilateral triangle
    - **f)** Scalene triangle
    - **g)** Scalene TRIANGLE
    - **h)** Equilateral triangle
    - **i)** Isosceles triangle
    - **j)** Equilateral triangle
    - **k)** Isosceles triangle
    - **l)** Scalene triangle
    - **m)** Equilateral tri angle
    - **n)** Isosceles triangle
    - **o)** Scalene triangle
    - **p)** Isosceles triangle
2. **Classify the following.**
    - **a)** Isosceles triangle
    - **b)** Scalene triangle
    - **c)** Equilateral triangle
    - **d)** Isosceles triangle
    - **e)** Scalene triangle
    - **f)** Equilateral triangle

Exercise 7H

1. **Classify the following triangles.**
    - **a)** Right angled triangle
    - **b)** Obtuse angled triangle
    - **c)** Acute angled triangle
    - **d)** Right angled triangle
    - **e)** **Right angled triangle**
    - **f)** Obtuse angled triangle
    - **g)** Acute angled triangle
    - **h)** Right angled triangle
    - **i)** Acute angled triangle
    - **j)** Obtuse angled triangle
    - **k)** Obtuse angled triangle
    - **l)** Obtuse angled triangle
2. **Study carefully the measures of angles of the triangle given below classify them according to their angles.**
    - **a)** Obtuse angled triangle
    - **b)** Acute angled triangle
    - **c)** Right angled triangle
    - **d)** Obtuse angled triangle
    - **e)** Acute angled triangle
    - **f)** Right angled triangle
    - **g)** Obtuse angled triangle
    - **h)** Acute angled triangle

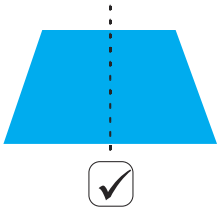
Exercise 7J

1. **Write the names of quadrilateral.**
    - **a)** Kite
    - **b)** Rhombus
    - **c)** Rhombus
    - **d)** Kite
    - **e)** Parallelogram
    - **f)** Trapezium
    - **g)** Parallelogram
    - **h)** Trapezium
2. **Look at the figures and answer the following.**
    - **a)** B and E,D
    - **b)** A and C
    - **c)** A , B , C , and D

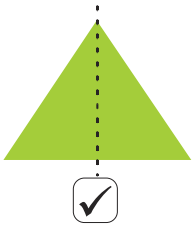
Exercise 7L

a. Tick the figure having reflective symmetry. Also draw the line of symmetry.

a)



b)



c)

b. State the order of rotational symmetry for each shape given below.

a) 6 order of rotational symmetry

b) 5 order of rotational symmetry

c) 4 order of rotational symmetry

d) 6 order of rotational symmetry

e) 3 order of rotational symmetry

f) 4 order of rotational symmetry

Unit 8

Exercise 8A

1. Find the perimeter of each of the following.

$4 \times s$

a) 4×4

$= 16$

$4 \times s$

b) 4×5

$= 20$

$4 \times s$

c) 4×7

$= 28$

$4 \times (l + b)$

d) $4 \times (4 + 3)$

$= 4 \times 7 = 28$

$4 \times (l + b)$

e) $4 \times (8 + 5)$

$= 4 \times 13 = 52cm$

$4 \times (l + b)$

f) $4 \times (10 + 4)$

$= 4 \times 14 = 56cm$

$4 \times (s)$

g) $4 \times (6)$

$= 24cm$

$4 \times (l + b)$

h) $4 \times (2 + 8)$

$= 4 \times 10 = 40cm$

2. Find the perimeter.

$4 \times (s)$

a) $4 \times (12)$

$= 48cm$

$4 \times (s)$

b) $4 \times (20)$

$= 80cm$

$4\times(l+b)$

c) $4\times(10+5)$

$=4\times15=60cm$

$4\times(l+b)$

d) $4\times(15+12)$

$=4\times27=108cm$

3. Find the perimeter of the rectangle.

$4\times(l+b)$

a) $4\times(3+2)$

$=4\times5=20cm$

$4\times(l+b)$

b) $4\times(4+2)$

$=4\times6=24cm$

$4\times(l+b)$

c) $4\times(5+3)$

$=4\times8=48cm$

$4\times(l+b)$

d) $4\times(7+3)$

$=4\times10=40cm$

4. Find the perimeter of the square.

$4\times(s)$

a) $4\times(1)$

$=4cm$

$4\times(s)$

b) $4\times(5)$

$=20cm$

$4\times(s)$

c) $4\times(10)$

$=40cm$

$4\times(s)$

d) $4\times(7)$

$=28cm$

5. Find the perimeter of rectangle.

$4\times(l+b)$

a) $4\times(60+30)$

$=4(90)=360mm$

$4\times(l+b)$

b) $4\times(100+75)$

$=4(175)=700cm$

$4\times(l+b)$

c) $4\times(110+9.2)$

$=4(119.2)=477cm$

$4\times(l+b)$

d) $4\times(48+26)$

$=4(74)=296mm$

6. Answer the following.

$4\times(l+b)$

a) $4\times(200+150)$

$=4(350)=1400cm$

b) 30 × 4= 120m

Exercise 8B

1. Find the area.

$l\times b$

a) 5×3

$15sqcm$

$l\times b$

b) 6×4

$24sqcm$

$l\times b$

c) 2×7

$14sqcm$

$s\times s$

d) 3×3

$9sqcm$

$s\times s$

e) 5×5

$25sqcm$

$s \times s$

f) 4×4

$16 sqcm$

2. **Find the area of the following.**

$s \times s$

a) 6×6

$36 sqcm$

$s \times s$

b) 12×12

$144 sqcm$

$s \times s$

c) 20×20

$400 sqcm$

3. **Find the area of following rectangles.**

$l \times b$

a) 2×5

$10 sqcm$

$l \times b$

b) 12×7

$84 sqcm$

$l \times b$

c) 15×10

$150 sqcm$

4. **Find the area of rectangle.**

$l \times b$

a) 100×75

$7500 sqcm$

$l \times b$

b) 80×24

$1920 cm$

$l \times b$

c) 8×6

$48 cm$

$l \times b$

d) 125×84

$10,500 m$

5. **Find the area of square.**

$s \times s$

a) 20×20

$400 sqcm$

$s \times s$

b) 84×84

$7056 sqcm$

$s \times s$

c) 7×7

$49 sqcm$

$s \times s$

d) 112×112

$12,544 m$

$s \times s$

e) 18×18

$324 m$

$s \times s$

f) 4×4

$16 cm$

Unit 9

Exercise 9A

1. **Find the average of the following.**

a. $\frac{12+20+1}{3} = \frac{33}{3} = 11$

b. $\frac{15+20+25}{3} = \frac{60}{3} = 20$

c. $\frac{8+7+6}{3} = \frac{21}{3} = 7$

d. $\frac{1+9+10+4+6}{5} = \frac{30}{5} = 6$

e. $\frac{4+8+6+5+2}{5} = \frac{25}{5} = 5$

f. $\frac{10+15+12+4+9}{5}=\frac{50}{5}=10$

2. $\frac{65+85+70+90+105}{5}=\frac{415}{5}=83$

3. $\frac{45+42+40+53+50}{5}=\frac{230}{5}=46$

4. $\frac{560}{8}=70$

5. $\frac{30+40+50}{3}=\frac{120}{3}=40$

6. $\frac{5+10+15}{3}=\frac{30}{3}=10$