

Decimal Fractions

Lecture sheet – 7

Word Problem

1) *There is a wire and its weight 400 grams per metre. If it is 2.4 metre in length then what is the weight of the wire?*

Solution:

The weight of 1m of wire is 400 grams

The weight of 2.4 m of wire is (400×2.4) grams
= 960 grams

Ans: 960 grams

$$\begin{array}{r} \text{Rough} \\ 400 \\ \times 2.4 \\ \hline 1600 \\ 8000 \\ \hline 960.0 \end{array}$$

2) *There is an iron bar, and its weight is 2.3 kg per metre. How many kilograms will it be if it is 1.4 metres in length?*

Solution:

The weight of 1 m of wire is 2.3 kg

The weight of 1.4 m of wire is (2.3×1.4) kg
= 3.22 kg

Ans: 3.22 kg

$$\begin{array}{r} \text{Rough} \\ 2.3 \\ \times 1.4 \\ \hline 92 \\ 230 \\ \hline 3.22 \end{array}$$

3) One inch equals 2.54 centimetres. How many centimetres are equal to 8.5 inches?

Solution:

$$\begin{aligned} 1 \text{ inch} &= 2.54 \text{ cm} \\ 8.5 \text{ inch} &= (2.54 \times 8.5) \text{ cm} \\ &= 21.59 \text{ cm} \end{aligned}$$

Ans: 21.59 cm

$$\begin{array}{r} \text{Rough} \\ 2.54 \\ \times 8.5 \\ \hline 1270 \\ 20320 \\ \hline 21.590 \end{array}$$

4) A car travels 42.8 km in one hour. How many kilometres will it travel in 15.5 hours?

Solution:

$$\begin{aligned} \text{In 1 hour, a car can travel } &42.8 \text{ km} \\ \text{In 15.5 hour, a car can travel } &(42.8 \times 15.5) \text{ km} \\ &= 663.4 \text{ km} \end{aligned}$$

Ans: 663.4 km

$$\begin{array}{r} \text{Rough} \\ 42.8 \\ \times 15.5 \\ \hline 2140 \\ 21400 \\ 42800 \\ \hline 663.40 \end{array}$$

5. A rectangular land has the width of 4.75 metres and the length of 12.8 metres. Find the area of this land.

Solution:

Given,

$$\text{Width} = 4.75 \text{ m}$$

$$\text{Length} = 12.8 \text{ m}$$

We know,

$$\begin{aligned} \text{Area of rectangular land} &= \text{Length} \times \text{Width} \\ &= (12.8 \times 4.75) \text{ sq.m} \\ &= 60.8 \text{ sq.m} \end{aligned}$$

Ans: 60.8 sq.m

$$\begin{array}{r}
 \text{Rough} \\
 12.8 \\
 \times 4.75 \\
 \hline
 640 \\
 8960 \\
 51200 \\
 \hline
 60.800
 \end{array}$$

6. Reza's weight is 36.5 Kg, and his younger brother and his father's weight are 0.8 times and 1.6 times of his weight respectively. Find his brother's and his father's weight.

Solution:

weight of Reza = 36.5 Kg

His brother's weight = 0.8 times of his weight

$$= (0.8 \times 36.5) \text{ Kg}$$

$$= 29.20 \text{ Kg}$$

Again,

His father's weight = 1.6 times of his weight

$$= (1.6 \times 36.5) \text{ Kg}$$

$$= 58.40 \text{ Kg}$$

Ans: 29.20 Kg, 58.40 Kg.

$$\begin{array}{r}
 \text{Rough} \\
 36.5 \\
 \times 0.8 \\
 \hline
 29.20
 \end{array}$$

$$\begin{array}{r}
 \text{Rough} \\
 36.5 \\
 \times 1.6 \\
 \hline
 2190 \\
 3650 \\
 \hline
 58.40
 \end{array}$$

Exercise (Do yourself)
Book exercise – 7(b) (Page - 87)
NO: 4, 5, 6, 7

