Fractions Ex 2.3 Q4

Answer :

(i)

$$\frac{3}{10} \div \frac{10}{3} = \frac{3}{10} \times \frac{3}{10} \Leftrightarrow \frac{3 \times 3}{10 \times 10}$$

$$\Rightarrow \frac{9}{100}$$

(ii)

$$4\frac{3}{5} \div \frac{4}{5} = \frac{(4 \times 5)+3}{5} \div \frac{4}{5}$$

$$\Rightarrow 4\frac{3}{5} \div \frac{4}{5} = \frac{23}{5} \div \frac{4}{5} \Leftrightarrow \frac{23}{5} \times \frac{5}{4}$$

$$\Rightarrow \frac{23}{4} = 5\frac{3}{4}$$

(iii)

$$5\frac{4}{7} \div 1\frac{3}{10} = \frac{(5 \times 7)+4}{7} \div \frac{(1 \times 10)+3}{10}$$

$$\Rightarrow 5\frac{4}{7} \div 1\frac{3}{10} = \frac{39}{7} \div \frac{13}{10} \Leftrightarrow \frac{\cancel{39}^{3}}{7} \times \frac{10}{\cancel{13}}$$

$$\Rightarrow \frac{30}{7} = 4\frac{2}{7}$$

(iv)

$$4 \div 2\frac{2}{5} = \frac{4}{1} \div \frac{(2 \times 5)+2}{5} \Leftrightarrow \frac{\cancel{4}}{1} \times \frac{5}{\cancel{12}^{3}}$$

$$\Rightarrow \frac{5}{3} = 1\frac{2}{3}$$

Fractions Ex 2.3 Q5

Answer :

$$12\frac{1}{2}\ \text{m} = \frac{(12\times2)+1}{2}\ \text{m}$$
$$= \frac{25}{2}\ \text{m}$$

$$\text{Length of one piece} = \frac{\text{Length of wire}}{10} = \frac{25}{2} \times \frac{1}{10} = \frac{25}{20}$$

$$\text{Length of one piece} = \frac{\cancel{25}^{5}}{\cancel{20}^{4}} = \frac{5}{4}\ \text{m}$$

Fractions Ex 2.3 Q6

Answer :

$$\text{Area of rectangle} = \text{Length of rectangle} \times \text{Width of rectangle}$$
$$65\frac{1}{3} = 12\frac{1}{4} \times \text{Width of the rectangle}$$
$$\frac{(65\times3)+1}{3} = \left[\frac{(12\times4)+1}{4}\right] \times \text{Width of the rectangle}$$
$$\frac{196}{3} = \frac{49}{4} \times \text{Width of the rectangle}$$
$$\text{Width of the rectangle} = \frac{\cancel{196}^{4}}{3} \times \frac{4}{\cancel{49}} = \frac{16}{3}\ \text{m}$$

Fractions Ex 2.3 Q7

Answer :

Let the required number be x.

According to the question:

$$6\frac{2}{9} \times x = 4\frac{4}{9}$$

$$\frac{(6\times 9)+2}{9} \times x = \frac{(4\times 9)+4}{9}$$

$$\frac{56}{9} \times x = \frac{40}{9}$$

$$x = \frac{40}{\cancel{9}} \times \frac{\cancel{9}}{56}$$

$$x = \frac{40}{56} = \frac{5}{7}$$

Fractions Ex 2.3 Q8

Answer :

Let the required number be x.

According to the question:

$$6\frac{2}{3} \times x = 25\frac{5}{6}$$

$$\frac{(6\times3)+2}{3} \times x = \frac{(25\times6)+5}{6}$$

$$\frac{20}{3} \times x = \frac{155}{6}$$

$$x = \frac{3}{20} \times \frac{155}{6} = \frac{\cancel{3} \times \cancel{155}^{31}}{\cancel{20}^{4} \times \cancel{6}^{2}} = \frac{31}{8}$$

$$= 3\frac{7}{8}$$

********** END **********