



### Exercise 1G

Q11

**Answer :**

$$\begin{aligned}\text{Cost of one metre of cloth} &= 57 \frac{3}{4} \div 3 \frac{1}{2} \\ &= \left(57 + \frac{3}{4}\right) \div \left(3 + \frac{1}{2}\right) \\ &= \frac{231}{4} \div \frac{7}{2} \\ &= \frac{231}{4} \times \frac{2}{7} \\ &= \frac{231 \times 2}{4 \times 7} \\ &= \frac{462}{28} \\ &= 16 \frac{14}{28} \\ &= \text{Rs } 16 \frac{1}{2}\end{aligned}$$

Therefore, the cost of one metre of cloth is Rs  $16 \frac{1}{2}$ .

Q12

**Answer :**

$$\begin{aligned}\text{Length of each piece of the cord} &= 71 \frac{1}{2} \div 26 \\ &= \left(71 + \frac{1}{2}\right) \div 26 \\ &= \frac{143}{2} \div 26 \\ &= \frac{143}{2} \div \frac{26}{1} \\ &= \frac{143}{2} \times \frac{1}{26} \\ &= \frac{143 \times 1}{2 \times 26} \\ &= \frac{143}{52} \\ &= \frac{9}{4} \\ &= 2 \frac{3}{4} \text{ m}\end{aligned}$$

Hence, the length of each piece of the cord is  $2 \frac{3}{4}$  metres.

Q13

**Answer :**

Area of a room = Length  $\times$  Breadth

Thus, we have:

$$65\frac{1}{4} = \text{Length} \times 5\frac{7}{16}$$

$$\text{Length} = 65\frac{1}{4} \div 5\frac{7}{16}$$

$$= \left(65 + \frac{1}{4}\right) \div \left(5 + \frac{7}{16}\right)$$

$$= \frac{261}{4} \div \frac{87}{16}$$

$$= \frac{261}{4} \times \frac{16}{87}$$

$$= \frac{261 \times 16}{4 \times 87}$$

$$= \frac{4176}{348}$$

$$= 12 \text{ m}$$

Hence, the length of the room is 12 metres.

**Answer :**

Let the other fraction be  $x$ .

Now, we have:

$$\begin{aligned}9\frac{3}{7} \times x &= 9\frac{3}{5} \\ \Rightarrow x &= 9\frac{3}{5} \div 9\frac{3}{7} \\ &= \left(9 + \frac{3}{5}\right) \div \left(9 + \frac{3}{7}\right) \\ &= \frac{48}{5} \div \frac{66}{7} \\ &= \frac{48}{5} \times \frac{7}{66} \\ &= \frac{48 \times 7}{5 \times 66} \\ &= \frac{336}{330} \\ &= \frac{56}{55} \\ &= 1\frac{1}{55}\end{aligned}$$

Hence, the other fraction is  $1\frac{1}{55}$ .

**Answer :**

If  $\frac{5}{8}$  of the students are boys, then the ratio of girls is  $1 - \frac{5}{8}$ , that is,  $\frac{3}{8}$ .

Now, let  $x$  be the total number of students.

Thus, we have:

$$\frac{3}{8}x = 240$$

$$\Rightarrow x = 240 \div \frac{3}{8}$$

$$= 240 \times \frac{8}{3}$$

$$= \frac{240}{1} \times \frac{8}{3}$$

$$= \frac{240 \times 8}{1 \times 3}$$

$$= \frac{1920}{3}$$

$$= 640$$

Hence, the total number of students is 640.

Now,

Number of boys = Total number of students - Number of girls

$$= 640 - 240$$

$$= 400$$

\*\*\*\*\* END \*\*\*\*\*