



Exercise 10A

Q6

Answer :

Number of male: Number of female = 5:3

Let the number be x .

Number of male = $5x$

Number of female = $3x$

Number of male workers = 115

Now, $5x = 115$

$$\Rightarrow x = \frac{115}{5} = 23$$

Number of female workers in the mill = $3x = 3 \times 23 = 69$

Q7

Answer :

Boys: Girls = 9:5

Let the number of boys = $9x$

Let the number of girls = $5x$

Total strength of the school = 448

According to given condition, we have:

$$\begin{aligned} 9x + 5x &= 448 \\ \Rightarrow 14x &= 448 \\ \Rightarrow x &= \frac{448}{14} = 32 \end{aligned}$$

Number of boys = $9x = 9 \times 32 = 288$

Number of girls = $5x = 5 \times 32 = 160$

Q8

Answer :

Kamal: Madhu = 7:2

Sum of the ratio terms = $7 + 2 = 9$

Kamal's share = $\frac{7}{9} \times 1575 = \frac{11025}{9} = \text{Rs } 1225$

Madhu's share = $\frac{2}{9} \times 1575 = \frac{3150}{9} = \text{Rs } 350$

Q9

Answer :

$$A:B:C = 3:5:7$$

$$\text{Sum of the ratio terms} = 3 + 5 + 7 = 15$$

$$A's \text{ share} = \frac{3}{15} \times 3450 = \frac{10350}{15} = \text{Rs } 690$$

$$B's \text{ share} = \frac{5}{15} \times 3450 = \frac{17250}{15} = \text{Rs } 1150$$

$$C's \text{ share} = \frac{7}{15} \times 3450 = \frac{24150}{15} = \text{Rs } 1610$$

Q10

Answer :

Two number are in the ratio 11:12.

Let the numbers be $11x$ and $12x$.

$$\text{Given: } 11x + 12x = 460$$

$$\Rightarrow 23x = 460$$

$$\Rightarrow x = \frac{460}{23} = 20$$

$$\text{First number} = 11x = 11 \times 20 = 220$$

$$\text{Second number} = 12x = 12 \times 20 = 240$$

Hence, the numbers are 220 and 240.

Q11

Answer :

Ratio of the two parts of line segment = 4:3

$$\text{Sum of the ratio terms} = 4 + 3 = 7$$

$$\text{First part} = \frac{4}{7} \times 35 \text{ cm} = 4 \times 5 \text{ cm} = 20 \text{ cm}$$

$$\text{Second part} = \frac{3}{7} \times 35 \text{ cm} = 3 \times 5 \text{ cm} = 15 \text{ cm}$$

Q12

Answer :

Number of bulbs produced each day = 630

Out of 10 bulbs, 1 is defective.

$$\text{Number of defective bulbs} = \frac{630}{10} = 63$$

∴ Number of defective bulbs produced each day = 63

Q13

Answer :

Price of pencil = Rs 96 per score

Price of ball pen = Rs 50.40 per dozen

$$\text{Price per unit of pencil} = \frac{96}{20} = 4.8$$

$$\text{Price per unit of ball pen} = \frac{50.40}{12} = 4.2$$

$$\text{Ratio} = \frac{4.8}{4.2} = \frac{48}{42} = \frac{48 \div 6}{42 \div 6} = \frac{8}{7}$$

Price of a pencil:Price of a ball pen = 8:7

***** END *****