

$$\textcircled{7} \quad \begin{aligned} \text{let length of shirt cloth} &= 3x \text{ m} \\ \text{length of trouser cloth} &= 2x \text{ m} \end{aligned}$$

$$\begin{aligned} \text{cost of shirt cloth} &= 3x \times 50 \\ &= \text{Rs } 150x \end{aligned}$$

$$\begin{aligned} \text{cost of trouser material/cloth} \\ &= 2x \times 90 \\ &= \text{Rs } 180x \end{aligned}$$

acc. to con.

$$\begin{aligned} 150x + \frac{12^6}{100} \times 150^3 x + 180x + \frac{10}{100} \times 180x \\ = 36600 \end{aligned}$$

$$\Rightarrow 168x + 198x = 36600$$

$$\Rightarrow 366x = 36600$$

$$\Rightarrow x = 100$$

$$\begin{aligned} \text{length of trouser material} \\ &= 2 \times 100 \\ &= 200 \text{ m} \end{aligned}$$