

$$\begin{aligned} \text{ar}(\text{rect } PQRS) &= lb \\ &= 12 \times 5 \\ &= 60 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{ar}(\Delta PSA) &= \frac{1}{2} \text{ar}(PQRS) \\ &= \frac{1}{2} \times 60 \\ &= 30 \text{ cm}^2 \end{aligned}$$

$$\text{ar}(\square AXCD) = \text{ar}(\Delta ADC) + \text{ar}(\Delta AXC)$$

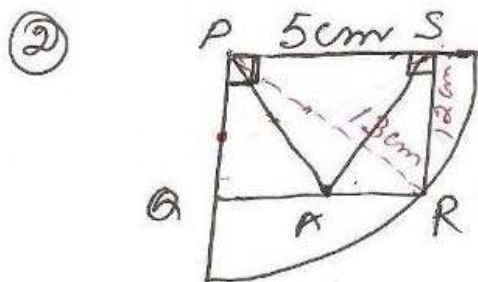
$$24 = \text{ar}(\Delta ADC) + \frac{1}{2} \text{ar}(\Delta ABC)$$

$$24 = \text{ar}(\Delta ABC) + \frac{1}{2} \text{ar}(\Delta ABC)$$

$$\frac{3}{2} \text{ar}(\Delta ABC) = 24$$

$$\begin{aligned} \Rightarrow \text{ar}(\Delta ABC) &= \frac{24 \times 2}{3} \\ &= 16 \text{ cm}^2 \end{aligned}$$

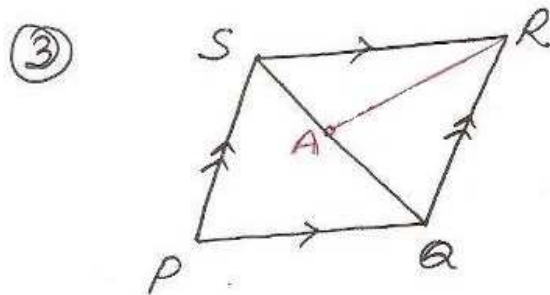
False



In rt ΔPSR

$$\begin{aligned} SR^2 &= PR^2 - PS^2 \\ &= 13^2 - 5^2 \\ &= 169 - 25 \\ &= 144 \end{aligned}$$

$$\begin{aligned} \Rightarrow SR &= \sqrt{144} \\ &= 12 \text{ cm} \end{aligned}$$



(diagonal divides a \square into 2 Δ s equal in area)

$$\begin{aligned} \therefore \text{ar}(\Delta QRS) &= \frac{1}{2} \times 180 \\ &= 90 \text{ cm}^2 \end{aligned}$$

$$\therefore \text{ar}(\Delta ASR) < \text{ar}(\Delta QRS)$$

$$\therefore \text{ar}(\Delta ASR) < 90'$$

False