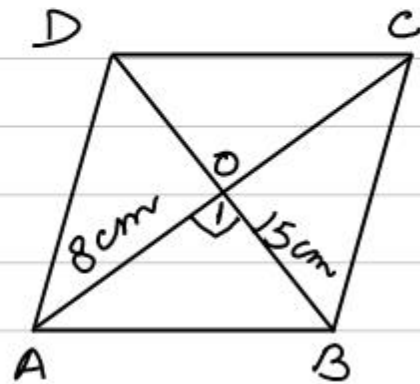


(17) diagonals of rhombus bisect each other.

$$\begin{aligned} \therefore OA &= \frac{1}{2} AC \\ &= \frac{1}{2} \times 16 \\ &= 8 \text{ cm} \end{aligned}$$

$$\begin{aligned} OB &= \frac{1}{2} BD \\ &= \frac{1}{2} \times 30 \\ &= 15 \text{ cm} \end{aligned}$$



diagonals of a rhombus are \perp to each other.

$$\therefore \angle = 90^\circ$$

In rt Δ AOB

$$\begin{aligned} AB^2 &= OA^2 + OB^2 \quad (\text{Pythagoras theorem}) \\ &= 8^2 + 15^2 \\ &= 64 + 225 \\ &= 289 \end{aligned}$$

$$\begin{aligned} AB &= \sqrt{289} \\ &= \sqrt{17 \times 17} \\ &= 17 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{Perimeter of rhombus} &= 4 \text{ sides} \\ &= 4 \times 17 \\ &= 68 \text{ cm} \end{aligned}$$

18 (i) Sum

(ii) a right Δ , rt \angle d opp to largest side

(iii) perpendicular