

⑦ $\angle B = 90^\circ$ (each L of rectangle) D

In rt $\triangle ABC$

$$AC^2 = AB^2 + BC^2 \quad (\#)$$

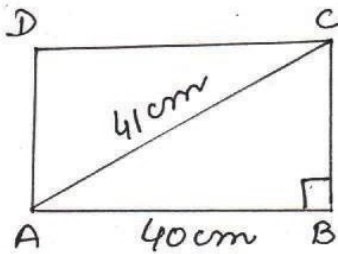
$$41^2 = 40^2 + BC^2$$

$$\Rightarrow BC^2 = 41^2 - 40^2$$

$$\Rightarrow BC = \sqrt{(41-40)(41+40)}$$

$$= \sqrt{1 \times 81}$$

$$= 9 \text{ cm}$$



$$\text{Perimeter of rect. ABCD} = 2(l+b)$$

$$= 2(40+9)$$

$$= 2 \times 49$$

$$= 98 \text{ cm}$$

8. $OA = \frac{1}{2} AC \quad (\#)$

$$= \frac{1}{2} \times 16$$

$$= 8 \text{ cm}$$

$OB = \frac{1}{2} BD \quad (\#)$

$$= \frac{1}{2} \times 30$$

$$= 15 \text{ cm}$$

$\angle = 90^\circ \quad (\#\#)$

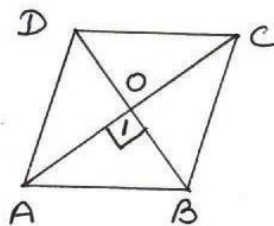
In rt $\triangle AOB$

$$AB^2 = OA^2 + OB^2 \quad (\#)$$

$$= 8^2 + 15^2$$

$$AB = \sqrt{64 + 225}$$

$$= \sqrt{289}$$



$$= 17 \text{ cm}$$

$$\text{Perimeter} = 4 \text{ Side}$$

$$= 4 \times 17$$

$$= 68 \text{ cm}$$

(#) Pythagoras theorem

(#) diagonals of rhombus bisect each other

(#\#) diagonals of a rhombus are perpendicular to each other