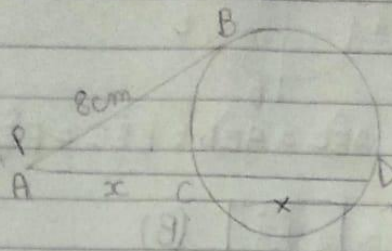


POTÊNCIA DE UM PONTO

TAREFA BÁSICA

①



$$PA \cdot PB = PC \cdot PD$$

$$8 \cdot 8 = x \cdot (x + x)$$

$$64 = 2x^2$$

$$32 = x^2$$

$$x^2 = 32$$

$$x = \sqrt{32}$$

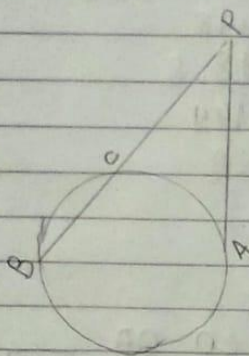
$$x = 4\sqrt{2}$$

$$\sqrt{32}$$

$$2^2 \sqrt{2}$$

$$x = 4\sqrt{2} \text{ (E)} \quad 4\sqrt{2}$$

②



$$PA = 3PC$$

$$PB = PA$$

$$PA = 3PC$$

$$PA^2 = PB \cdot PC$$

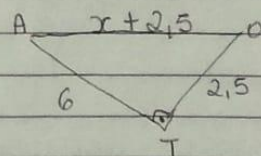
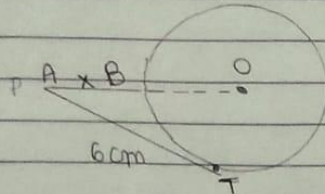
$$(3PC)^2 = PB \cdot PC$$

$$9PC^2 = PB \cdot PC$$

$$9PC = PB$$

$$PB = 9PC \text{ (B)}$$

③



P. Pitágoras

$$x^2 + 5x + (2,5)^2 = (2,5)^2 + 36$$

$$x^2 + 5x - 36 = 0$$

$$\Delta = 25 + 144 = 169$$

$$x = \frac{-5 \pm 13}{2} = 8 \text{ (E)}$$

$$x = \frac{-5 - 13}{2} \text{ (não convém)}$$

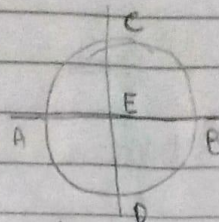
④ $AE \cdot EB = 3$

$CE = ED$

$CE \cdot ED = AE \cdot EB = 3$

$CE^2 = 3$

$CE = \sqrt{3}$

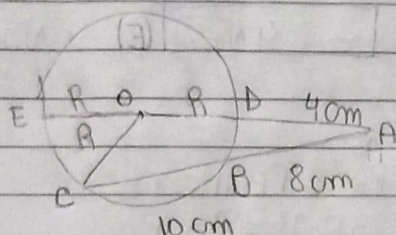


$\hat{AEC} = \hat{AED} = \hat{BEC} = \hat{BED} = 90^\circ$

$CD = CE + ED \rightarrow CD = CE + CE$

$CD = 2 \cdot CE \rightarrow CD = 2\sqrt{3} \quad (B)$

⑤



Point $\rightarrow R$

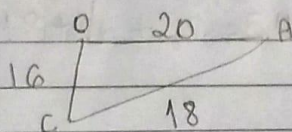
$4 \cdot (4 + 2R) = 18 \cdot 8$

$16 + 8R = 144$

$8R = 128$

$R = 16$

Perímetro do $\triangle AOC$:



AC CO OA

$18 + 16 + 20 = 54 \quad (E)$