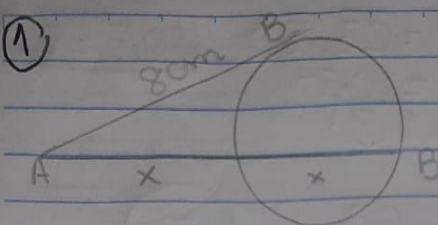


Evelyn Santos de Santana

CTII348

Potência de Ponto

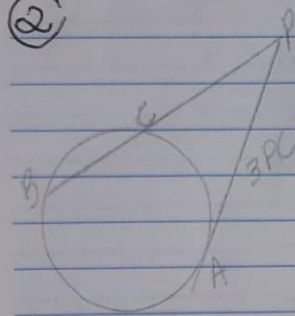
①



$AC \cdot AD = AB \cdot AB$
 $x \cdot 2x = 8 \cdot 8$
 $2x^2 = 64$
 $x^2 = \frac{64}{2}$
 $x^2 = 32$
 $x = \sqrt{32}$
 $x = \sqrt{2^2 \cdot 2 \cdot 2}$
 $x = 4\sqrt{2}$

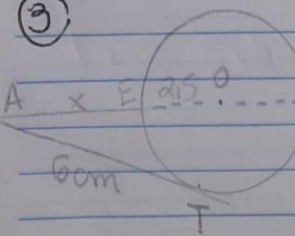
32	2
16	2
8	2
4	2
2	2
1	

②



$PC \cdot PB = PA \cdot PA$
 $PC \cdot PB = 3PC^2$
 $PB \cdot PC = 9PC^2$
 $PB = 9PC$

③

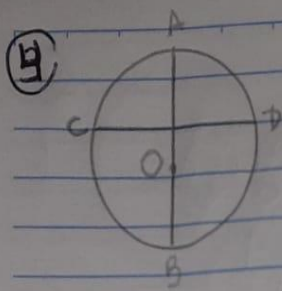


$AB \cdot AC = AT \cdot AT$
 $x \cdot (x+5) = 6 \cdot 6$
 $x^2 + 5x = 36$
 $x^2 + 5x - 36 = 0$

$x^2 + 5x - 36 = 0$
 $\Delta = (5)^2 - 4 \cdot 1 \cdot (-36)$
 $\Delta = 25 + 144$
 $\Delta = 169$

$x = \frac{-5 \pm \sqrt{169}}{2 \cdot 1} = \frac{-5 \pm 13}{2}$
 $x_1 = \frac{-5 - 13}{2} = \frac{-18}{2} = -9$ (não convém)
 $x_2 = \frac{-5 + 13}{2} = \frac{8}{2} = 4$

$AB = 40\text{cm}$



$$\overline{AE} \cdot \overline{EB} = \overline{CE} \cdot \overline{ED} \quad \sqrt{CE = ED}$$

$$3 = CE^2$$

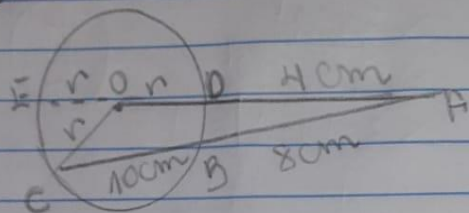
$$CE = \sqrt{3}$$

$$CD = 2CE$$

$$CD = 2\sqrt{3}$$

(E)

5



$$\overline{AE} \cdot \overline{AD} = \overline{AC} \cdot \overline{AB}$$

$$(2r+4) \cdot 4 = (10+8) \cdot 8$$

$$8r+16 = 18 \cdot 8$$

$$8r+16 = 144$$

$$8r = 144 - 16$$

$$8r = 128$$

$$r = 128/8$$

$$r = 16$$

$$AO = 4 + r$$

$$= 4 + 16$$

$$AO = 20 \text{ cm}$$

$$AC = 10 + 8$$

$$AC = 18 \text{ cm}$$

$$CO = r$$

$$CO = 16 \text{ cm}$$

$$\text{Perimetro} = 2p$$

$$2p = \overline{AO} + \overline{AC} + \overline{CO}$$

$$2p = 20 + 18 + 16$$

$$2p = 54 \text{ cm}$$

(E)