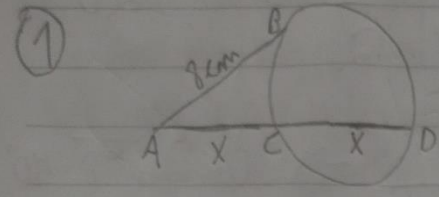


**Potência de um ponto:**

1.

①



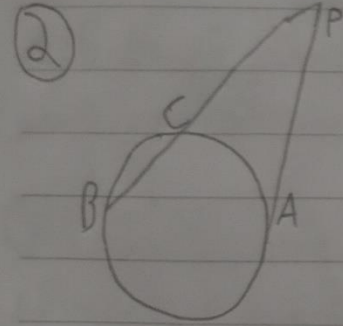
$AC \cdot AD = AB \cdot AB$        $x^2 = \frac{64}{2}$   
 $x \cdot (x+x) = 8 \cdot 8$   
 $x^2 + x^2 = 64$        $x = \sqrt{32}$   
 $2x^2 = 64$        $x = 4\sqrt{2}$

R: e)  $4\sqrt{2}$

R: e)  $4\sqrt{2}$

2.

②



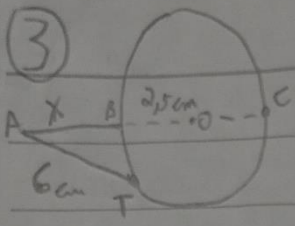
$PA = 3PC$        $PC \cdot PB = PA \cdot PA$   
 $PC \cdot PB = 3PC \cdot 3PC$   
 $PB = \frac{3PC \cdot 3PC}{PC}$   
 $PB = 3 \cdot PC \cdot 3$   
 $PB = 9PC$

R: b)  $PB = 9PC$

R: b)  $PB = 9PC$

3.

③



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

$\Delta = 5^2 - 4 \cdot 1 \cdot -36$   
 $\Delta = 25 + 144$   
 $\Delta = 169$   
 $\sqrt{169} = 13$

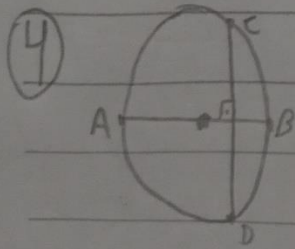
$x' = \frac{-5 + 13}{2} \rightarrow \frac{8}{2} \quad x' = 4$   
 $x'' = \frac{-5 - 13}{2} \rightarrow \frac{-18}{2} \quad x'' = -9$

R: E | 4

R: e) 4

4.

④



$AE \cdot EB = CE \cdot ED$   
 $3 = ED^2$   
 $ED = \sqrt{3}$

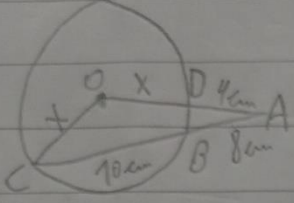
$CD = 2 \cdot ED$   
 $CD = 2\sqrt{3}$

R: B |  $2\sqrt{3}$

R: b)  $2\sqrt{3}$

5.

⑤



$$8 \cdot 18 = 4 \cdot (4 + x + x)$$

$$144 = 16 + 4x + 4x$$

$$144 - 16 = 8x$$

$$x = \frac{128}{8}$$

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

$$AC = 10 + 8 = 18 \text{ cm}$$

$$AO = 4 + 16 = 20 \text{ cm}$$

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

$$P = 20 + 18 + 16$$

$$P = 54 \text{ cm}$$
  

R: E | 54

R: e) 54