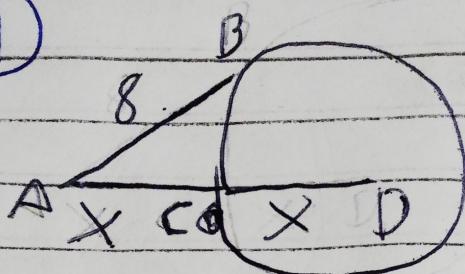


TAREFA BÁSICA - POTÊNCIA DE UM PONTO

(1)



$$AC \cdot AD = AB \cdot BC$$

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

$$2x^2 = 64$$

$$x^2 = 32$$

$$\begin{array}{r} 32 \\ | \\ 2 \end{array}$$

$$x = \sqrt{32}$$

$$\begin{array}{r} 15 \\ | \\ 2 \end{array}$$

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

$$\begin{array}{r} 8 \\ | \\ 2 \end{array}$$

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

$$\begin{array}{r} 4 \\ | \\ 2 \end{array}$$

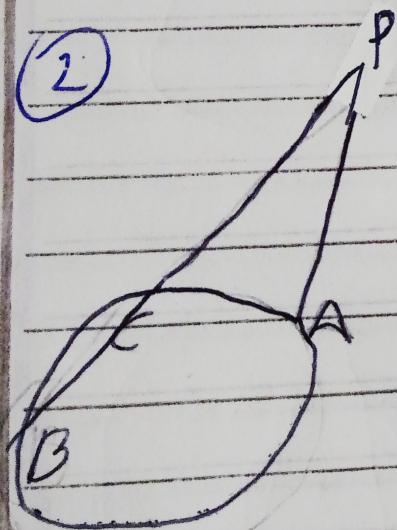
$$x = 4\sqrt{2}$$

$$\begin{array}{r} 2 \\ | \\ 2 \end{array}$$

ALTERNATIVA (E)

$$\sqrt{x^2 + 8^2} = \sqrt{32^2 + 8^2} = \sqrt{4\sqrt{2}^2 + 8^2} = \sqrt{4\sqrt{2}^2 + 2^2 + 2^2} = \sqrt{4\sqrt{2}^2 + 2^2 + 2^2} = 4\sqrt{2}.$$

(2)



$$PA \cdot PC = PB \cdot QD \quad PC = x$$

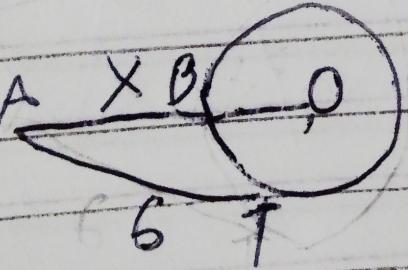
$$3x \cdot 3x = x \cdot PD$$

$$9x = x \cdot PD$$

$$\frac{9x}{x} = \frac{x \cdot PD}{x}$$

$$9x = PD \quad PD = 9PC \quad \text{ALTERNATIVA (F)}$$

(3)



$$AC \cdot BC = AB \cdot AO$$

$$6 \cdot 6 = x \cdot (5+x)$$

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

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

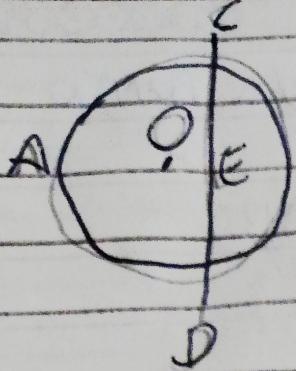
$$\frac{-9 + 4}{-9} = 5$$

$$\frac{-9 + 4}{-9} = -36$$

$$x = 4$$

ALTERNATIVA (E)

4



$$\angle AEB = 30^\circ$$

$$\angle CED = 60^\circ$$

$$\angle CEC' = \angle AEB = 30^\circ$$

$$CE^2 = 3$$

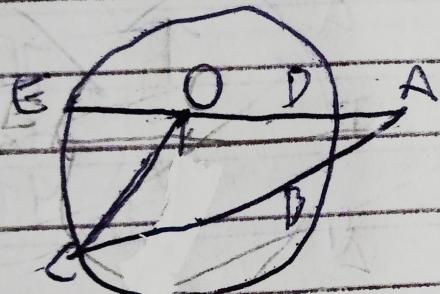
$$CE = \sqrt{3}$$

$$CD = CE + ED$$

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

$$CD = 2\sqrt{3} \text{ ALTERNATIVA (B)}$$

5



$$RAIO = R$$

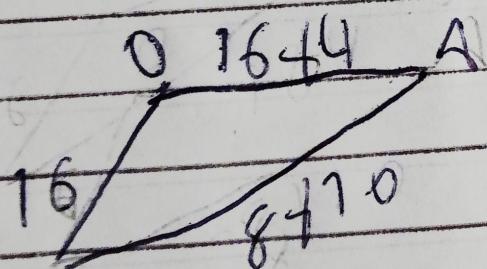
$$\angle AED = \angle ACB$$

$$(4+2R)^\circ 4 = 72^\circ 8'$$

$$16 + 8R = 144$$

$$8R = 144 - 16$$

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



$$R = 16$$

$$P_2 = 16 + 16 + 4 + 8 + 10$$

$$P_2 = 54 \text{ ALTERNATIVA (E)}$$