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Sala: CTII 317

$$1) AB^2 = AC \cdot AD$$

$$AB = 8 \text{ cm}$$

$$AC = CD = x$$

$$AD = (AC + CD)$$

$$8^2 = x(x + x)$$

$$64 = x \cdot 2x$$

$$2x^2 = 64$$

$$x^2 = \frac{64}{2}$$

$$x^2 = 32$$

$$x = \sqrt{32}$$

$$x = 4\sqrt{2} \text{ letra E}$$

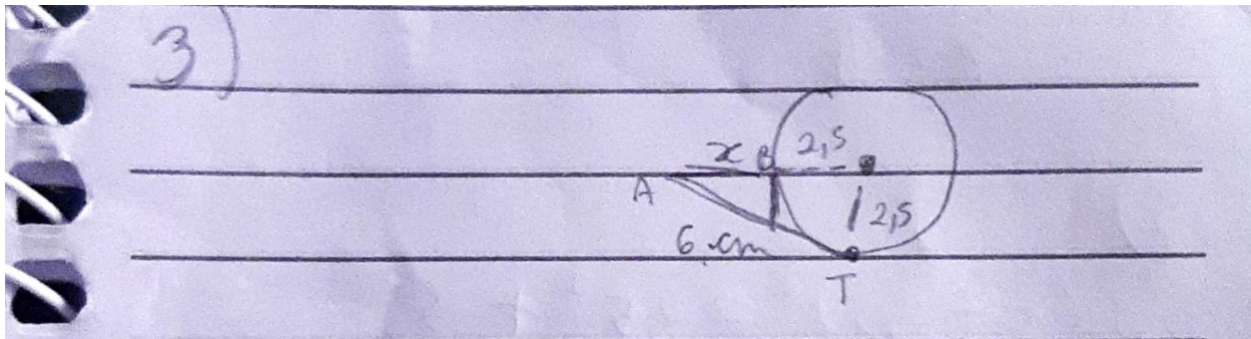
$$2) PA = 3PC$$

$$\frac{PB}{PA} = \frac{PA}{PC} \rightarrow PA^2 = PB \cdot PC$$

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

$$9PC = PB$$

$$PB = 9PC \text{ tetra B}$$



$$\begin{aligned} (x+2,5)^2 &= 2,5^2 + 6^2 \\ x^2 + 5x + \frac{25}{4} &= \left(\frac{5}{2}\right)^2 + 36 \\ x^2 + 5x + \frac{25}{4} &= \frac{25}{4} + 36 \\ x^2 + 5x + \frac{25}{4} &= \frac{169}{4} \\ x^2 + 5x + \frac{25}{4} - \frac{169}{4} &= 0 \\ x^2 + 5x - 36 &= 0 \\ \Delta &= b^2 - 4 \cdot a \cdot c \\ \Delta &= 5^2 - 4 \cdot 1 \cdot (-36) \\ \Delta &= 25 + 144 \\ \Delta &= 169 \end{aligned}$$



$$4) AE \cdot EB = 3$$

$$CE = ED$$

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

$$CE^2 = 3$$

$$CE = \sqrt{3}$$

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

$$CD = 2\sqrt{3} \text{ letra B}$$

$$5) AE \cdot AD = AC \cdot AB$$

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

$$16 + 8R = 144$$

$$8R = 144 - 16$$

$$8R = 128$$

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

$$R = 16$$

Perimetro:

$$18 + 16 + 20 = 54$$

letra E