Potência de um ponto

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

$AB = 8\,cm$

$AC = CD = x$

$AD = (AC + CD)$

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

$64 = x \cdot 2 \cdot x$

$64 = 2 \cdot x^2$

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

$x^2 = 32$

$x = \sqrt{32}$

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

2) $4PA = 3PC$

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

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

$9PC = PB$

$PB = 9PC$ letra B

4) $\overline{AC} \cdot \overline{CB} = 3$

$\overline{AC} = \overline{CB}$

$\overline{AC} \cdot \overline{CB} = \overline{AC} \cdot \overline{CB} = 3$

$\overline{AC}^2 = 3$

$\overline{AC} = \sqrt{3}$

$\overline{AB} = \overline{AC} + \overline{CB} = \sqrt{3} + \sqrt{3}$

$\overline{AB} = 2\sqrt{3}$ letra B

5) $\overline{AC} \cdot \overline{AB} = \overline{AC} \cdot \overline{CB}$

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

$16 + 8R = 144$

$8R = 128$

$R = \dfrac{128}{8}$ $R = 16$

perímetro:

$$P + P + P$$

$$18 + 16 + 20 = 54 \quad \text{letra E}$$