Potência de um ponto

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

$AB = 8\ cm$

$AC = CD = x$

$AD = (AC + CD)$

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

$64 = x \cdot 2 \cdot x$

$64 = 2 \cdot x^2$

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

$x^2 = 32$

$x = \sqrt{32}$

$x = 4\sqrt{4}$ Letra E

2) $PA = 3\,PC$

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

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

$9PC = PB$

$PB = 9PC$ Letra B

4) $AE \cdot EB = 3$

$CE = ED$

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

$CE^2 = 3$

$CE = \sqrt{3}$

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

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

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

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

$16 + 8R = 144$

$8R = 128$

$R = \frac{128}{8}$ $\quad R = 16$

Perímetro:

$AC + CO + OA$

$18 + 16 + 20 = 54$ letra E