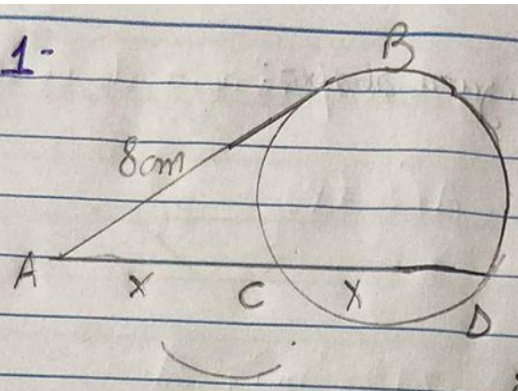
1-



$\overline{AC} \cdot \overline{AD} = (AB)^2$

$x \cdot 2x = 8^2$

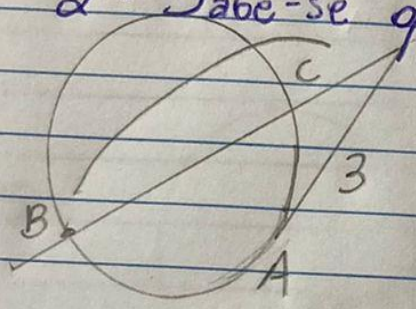
$2x^2 = 64$

$x = \sqrt{32}$

$x = \sqrt{2^3 \cdot 2^2 \cdot 2}$

$x = 4\sqrt{2}$ E

2- Sabe-se que $P_A = 3P_C$



$\overline{PB} \cdot \overline{PC} = (\overline{PA})^2$

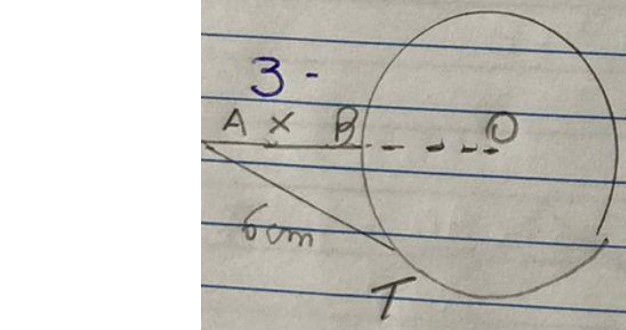
$\overline{PB} \cdot \overline{PC} = (3\overline{PC})^2$

$\overline{PB} \cdot \overline{PC} = 9(\overline{PC})^2$

$\overline{PB} = \frac{9 \cdot \overline{PC} \cdot \overline{PC}}{\overline{PC}}$

$\overline{PB} = 9\overline{PC}$

3-



$2 \cdot 2{,}5 = 5$

$\overline{AB} \cdot \overline{AC} = (\overline{AT})^2$ (6²)

$x^2 + 5x - 6^2 = 0$

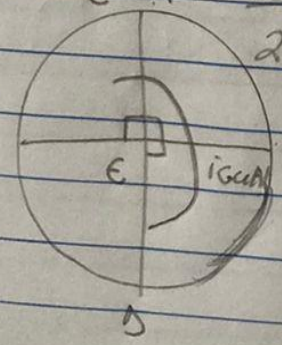
$\Delta = 5^2 - 4 \cdot 1 \cdot (-36)$

$\Delta = \sqrt{164}$ $\therefore x = \frac{-5 \pm 13}{2}$

$x_1 = -9$ não convem

C $x2 = \frac{8}{2} = 4cm$

4-



C.D. $AE \cdot EB = 3$

$\overline{AE} \cdot \overline{EB} = \overline{CE} \cdot \overline{ED}$

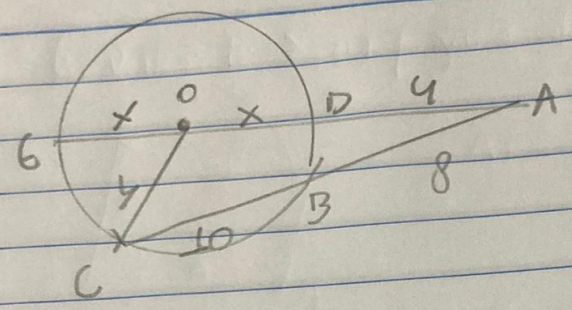
$3 = x \cdot x$

$x^2 = \sqrt{3}$

$\overline{CD} = \overline{CE} + \overline{ED}$

$CD = \sqrt{3} + \sqrt{3} = 2\sqrt{3}$

5.



$\overline{AD} \cdot \overline{AE} = \overline{AB} \cdot \overline{AC}$

$4 \cdot (4+2x) = 8 \cdot (8+10)$

$16 + 8x = 8 \cdot 18$

$8x = 144 - 16$

$x = \frac{128}{8} = 16\,cm$

$P = 16 + (16+4) + (8+10)$

$P = 16 + 20 + 18 = 54cm$ €