S T Q Q S S D

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Potências de Ponto - CT11314

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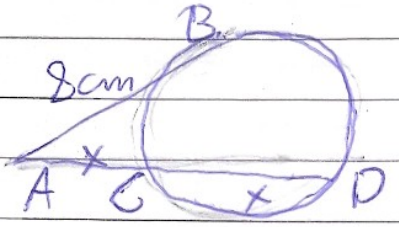
1)



$AB^2 = AC \cdot AD$

$AB = 8\ cm$

$AC = CD = x$

$AD = (AC + CD)$

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

$64 = x \cdot 2 \cdot x$

$64 = 2 \cdot x^2$

$x^2 = 32$

$x = \sqrt{32}$

$x = 4\sqrt{2}$

2)

$PA = 3PC$

$\frac{PB}{PA} = \frac{PA}{PC}$

$PA^2 = PB \cdot PC$

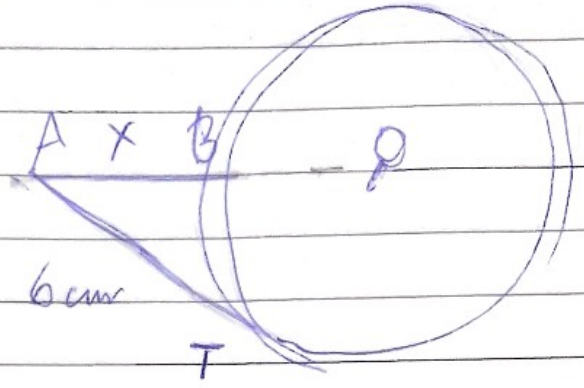
$(3PC)^2 = PB \cdot PC$

$9PC^2 = PB \cdot PC$

$9PC = PB$

$PB = 9PC$

3-



$PT^2 = PA \cdot PB$

$AT^2 = AB^2 \cdot 2 \cdot BO$

$6^2 = x \cdot (5+x) \Rightarrow x^2 + 5x - 36 = 0$

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

$$x = \frac{-5 \pm \sqrt{5^2 - 4 \cdot 1 \cdot (-36)}}{2 \cdot 1}$$

$$x = \frac{-5 \pm 13}{2}$$

$x_1 = 4$

$x_2 = 9$

4 -

$AE \cdot EB = CE \cdot ED$

Diâmetro = 4

$CE = ED$

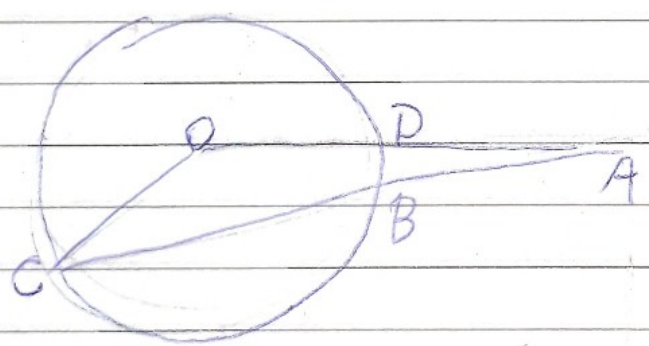
$3 = CE^2$

$CE = \sqrt{3}$

$CD = 2CE$

$CD = 2\sqrt{3}$

5 -



$AE \cdot AD = AC \cdot AB$

$(4 + 2R) \cdot 4 = 15 \cdot 8$

$16 + 8R = 120$

$8R = 128$

$R = 128 / 8$

$R = 16$

Perímetro:

$AC + CO + OA$

$18 + 16 + 20$

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