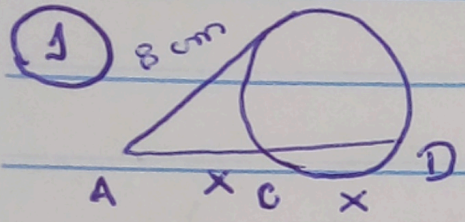
Beatriz Gonçalves Eleutério

• Potência

① 

$AB^2 = AC \cdot AD$

$8^2 = 2x \cdot x$

$8^2 = 2x^2$

$\frac{64}{2} = x^2 \rightarrow x^2 = 32$

$x = \sqrt{32}$

$x = 4\sqrt{2}$

E

$AB = 8\ cm$

$AC = x = CD$

② $PA = 3PC \rightarrow I$ | $PA^2 = PB \cdot PC \rightarrow II$

$PB = PA$ ⟶

$PA \quad PC$ |

B

$(3PC)^2 = PB \cdot PC \rightarrow 9PC = PB$

③ $6^2 = x.(5+x)$

$36 = x^2 + 5x$

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

$\Delta = 5^2 - 4.1.(-36)$

$\Delta = 25 + 144$

$\Delta = 169$

$x = \frac{-5 \pm \sqrt{169}}{2.1}$

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

$x' = \frac{-5+13}{2} = \frac{8}{2} = \boxed{4}$

$x'' = \frac{-5-13}{2} = \frac{-18}{2} = \boxed{-9}$

Nessa situação o valor negativo não é aceito.

$\boxed{x = 4}$

(E)

(4) $AE \cdot EB = CE \cdot DE$

$CE = ED$

$3 = CE^2$

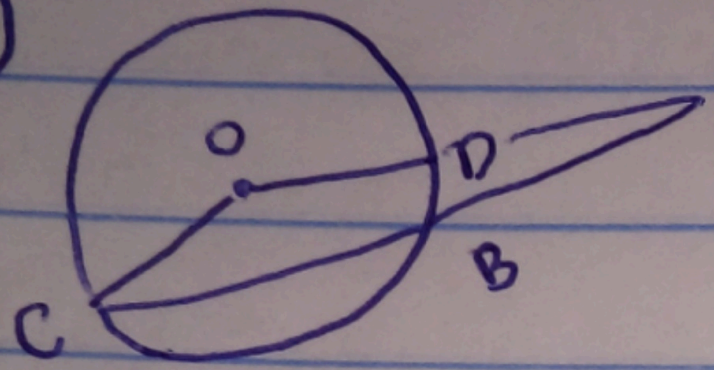
$CE = \sqrt{3}$

$CD = 2CE$

$CD = 2\sqrt{3}$

B

(5)



$AE \cdot AD = AC \cdot AB$

$x \cdot 18 = B$

(E)

$(4-2B) \cdot 4 = 18 \cdot 8$

$16 + 8B = 144$

$8B = 144 - 16$

$B = \frac{128}{8} \rightarrow B = 16 \rightarrow Raio = 16$

$18 + 16 + 20 = \boxed{54}$