Tarefa Básica - Potência de Ponto

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

$AB = 8\,cm$

$AC = CD = x$

$AD = (AC + AD)$

$\overline{AC} = \overline{CD} = 4\sqrt{2}$

R: (E)

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

$8^2 = 2x^2$

$64 = 2x^2$

$2x^2 = 64$

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

$x^2 = 32$

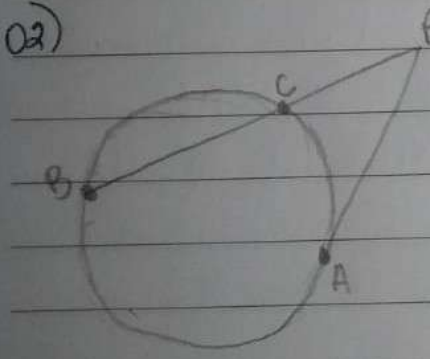
$x = \sqrt{32}$

$\boxed{x = 4\sqrt{2}}$

32	2
16	2
8	2
4	2
2	2
1	

$2 \cdot 2 \cdot \sqrt{2} = 4\sqrt{2}$

02)



$\underline{PA = 3PC}$

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

$PA^2 = PB \cdot PC$

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

$9PC = PB \cdot PC$

$\frac{9PC}{1PC} = PB$

$9PC = PB$

$\boxed{PB = 9PC}$

R: (B)

spiral

S T Q Q S S D

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03) raio = 2,5 cm
AT = 6 cm
AB = x

$6^2 = x.(2{,}5 + x)$
$6^2 = x.(5 + x)$
$6^2 = 5x + x^2$
$36 = 5x + x^2$
$x^2 + 5x - 36 = 0$
$a = 1 \quad \Delta = 5^2 - 4.1.(-36)$
$b = 5 \quad \Delta = 25 + 144$
$c = -36 \quad \Delta = 169$

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

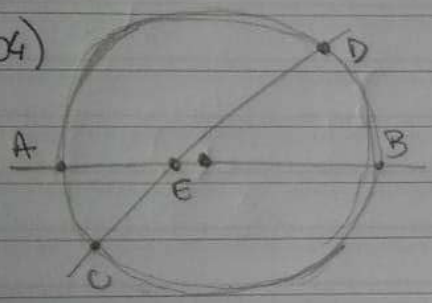
$x_1 = \frac{-18}{2} = -9$ X

$x_{11} = \frac{8}{2} = 4$

AB = x = 4

R: (E)

04)

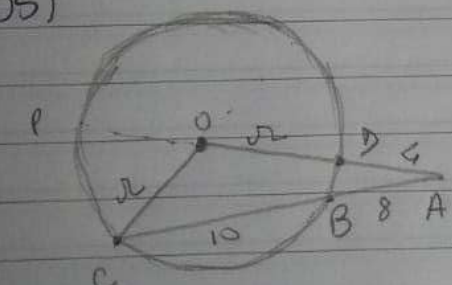


AE = EB = 3
CE . ED = AE . EB
CE . ED = 3
$CE^2 = 3$
$CE = \sqrt{3}$

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

R: (B)

05)



AB = 8 cm
BC = 10 cm
AD = 4 cm
DO = ?
CO = ?

$AP \cdot AD = AC \cdot AB$
$(2r + 4).4 = (10 + 8).8$
$8r + 16 = 18.8$
$8r + 16 = 144$
$8r = 144 - 16$
$8r = 128$
$r = \frac{128}{8}$

$r = 16 = CO = OD$

Perímetro
$P = AC + CO + OD$
$P = (10 + 8) + 16 + (16 + 4)$
$P = 10 + 8 + 16 + 16 + 4$
$P = 54\,cm$

R: (E)