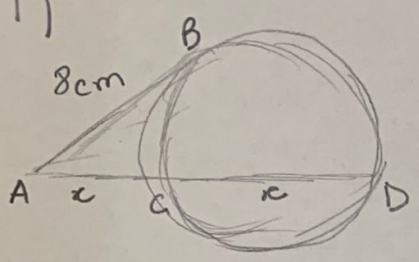
1)



$\bar{AC} \cdot \bar{AD} = \bar{AB} \cdot \bar{AB}$

$x \cdot 2x = 8 \cdot 8$

$2x^2 = 64$

$x^2 = 64/2$

$x^2 = 32$

$x = \sqrt{32}$

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

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

$x = 4\sqrt{2}$

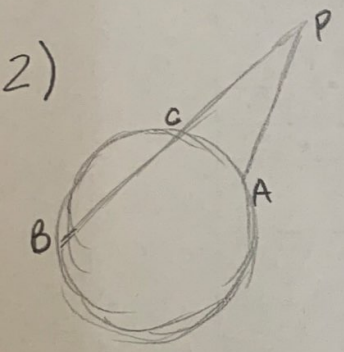
R: E

32	2
16	2
8	2
4	2
2	2

1)

2)

2)



$\bar{PA} \cdot \bar{PA} = \bar{PB} \cdot \bar{PC}$

$3\bar{PC} \cdot 3\bar{PC} = \bar{PB} \cdot \bar{PC}$

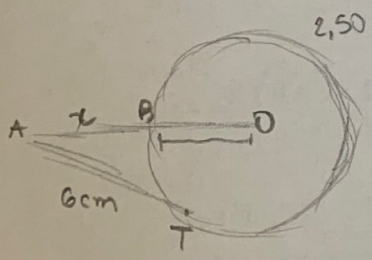
$9\bar{PC} = \bar{PB} \cdot \bar{PC}$

$9PC = \bar{PB}$

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

R: B

3)



$\bar{AB} \cdot \bar{AC} = \bar{AT} \cdot \bar{AT}$

$x \cdot (x+5) = 6 \cdot 6$

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

$\Delta = 5^2 - 4.1 - 36$

$\Delta = 25 - (-144)$

$\Delta = 169$

$x = (-5 \pm \sqrt{169}) / 2.1$

$x = (-5 \pm 13)/2$

$x' = -5 + 13/2$ | $x'' = -5 - 13/2$

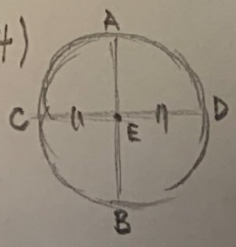
$x' = 8/2$ | $x'' = -18/2$

$x' = 4$ | $x'' = -9$

$x = AB = 4\,cm$

R: E

4)



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

$3 = \bar{CE} \cdot \bar{CE}$

$3 = \bar{CE}^2$

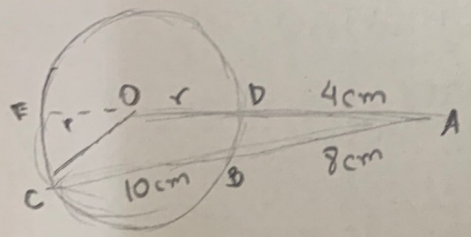
$CE = \sqrt{3}$

$\bar{CD} = 2CE$

$CD = 2\sqrt{3}$

R: B

5)



$\bar{AE}.\bar{AD} = \bar{AC}.\bar{AB}$

$(2r+4).4 = 18.8$

$8r + 16 = 144$

$8r = 144 - 16$

$8r = 128$

$r = 128/8$

$r = 16$

$AO = 4 + r$

$AO = 4 + 16$

$AO = 20\,cm$

$AC = 10 + 8 = 18\,cm$

$CO = r = 16\,cm$

$P = 20 + 18 + 16 = 54\,cm$

R: E