

Lista de Exercícios - Aula 25

Lista de Exercícios

1-

$23^\circ 45' + 66^\circ 15' = 90^\circ$   
A é um ponto de tangência

$\hat{TAB}$  é um ângulo de segmento, então  
 $AB = 2 \cdot 66^\circ 15' \rightarrow AB = 132^\circ 30'$

$\hat{APB} = \frac{\hat{AB}}{2} \rightarrow \hat{APB} = \frac{132^\circ 30'}{2} =$

$x$  é igual à medida  
(do ângulo do segmento  $AB$ )

$\hat{APB} = 66^\circ 15'$   
Alternativa E

2-

$\hat{EPF} = 20^\circ$  (inscrito no ângulo central  $\hat{EOF}$ )  
 $A\hat{O}B = 40^\circ$ ,  $A\hat{D}B = 20^\circ$  (ângulo central  $A\hat{O}B$ )  
 $A\hat{P}D = 20^\circ$

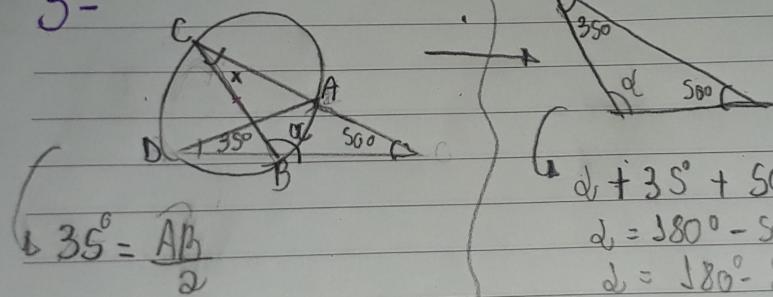
$P\hat{A}D = 20^\circ + 20^\circ + x = 380^\circ$  (soma dos ângulos internos)  
 $P\hat{A}D = x = 380^\circ - 40^\circ$   
 $\hat{P\hat{A}D} = x = 340^\circ$

$C\hat{A}D = 40^\circ$  (ponto é externo ao  $A\hat{D}B$  ( $C\hat{A}P = 380^\circ$  e  $D\hat{A}P = 340^\circ$ ))  
inscrito na menor circunferência e corresponde ao arco  $CB$ , ou ao  $C\hat{O}D$ .

$C\hat{O}D = \text{arco } CB = 2 \cdot 40^\circ$

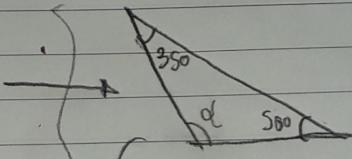
Alternativa E  $80^\circ$

3-



$$\therefore 35^\circ = \frac{\widehat{AB}}{2}$$

$$x = \frac{\widehat{AB}}{2} = 35^\circ$$



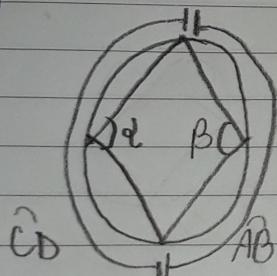
$$\alpha + 35^\circ + 50^\circ = 180^\circ$$

$$\alpha = 180^\circ - 50^\circ - 35^\circ$$

$$\alpha = 180^\circ - 85^\circ$$

$$\alpha = 95^\circ \quad \text{Alternativa A}$$

4-



$$\alpha = \frac{\widehat{AB}}{2} \rightarrow \widehat{AB} = 2\alpha$$

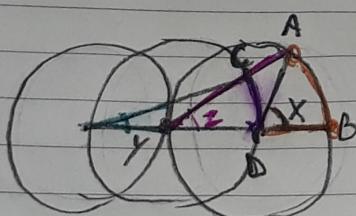
$$\beta = \frac{\widehat{CD}}{2} \rightarrow \widehat{CD} = 2\beta$$

$$\widehat{CD} + \widehat{AB} = 2\pi$$

$$2\beta + 2\alpha = 2\pi \quad (\because 2\pi \text{ é igual a } 360^\circ)$$

$$\beta + \alpha = \pi \quad \text{Alternativa C}$$

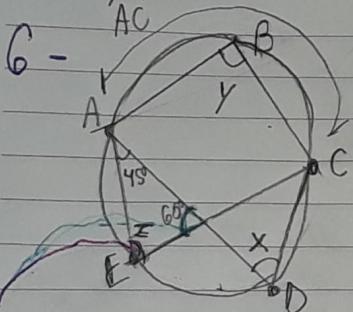
5-



$$X = \widehat{AB} \quad \left\{ \begin{array}{l} Z = \frac{X}{2} \\ Y = \widehat{CD} \end{array} \right.$$

$$\bullet Z = \widehat{CD} \quad \left\{ \begin{array}{l} \widehat{CD} = \frac{X}{2} \\ \widehat{CD} = \frac{Y}{2} \end{array} \right.$$

$$\bullet Y = \frac{\widehat{CD}}{2} \rightarrow Y = \frac{X}{2} \rightarrow Y = \frac{X}{2} \cdot \frac{1}{2} = \frac{X}{4} \quad \text{Alternativa D}$$



$$\rightarrow z + 45^\circ + 60^\circ = 180^\circ$$

$$z = 180^\circ - 105^\circ$$

$$z = 75^\circ$$

$$45^\circ = \frac{\widehat{ED}}{2} \rightarrow \widehat{ED} = 90^\circ$$

$$z = \frac{\widehat{AC}}{2} \rightarrow 75^\circ = \frac{\widehat{AC}}{2}$$

$$x = \frac{\widehat{CD}}{2} \rightarrow x = 75^\circ$$

$$60^\circ = \frac{\widehat{AE} + \widehat{CD}}{2}$$

$$y = \frac{\widehat{AE} + \widehat{CD} + \widehat{EN}}{2}$$

$$\widehat{AE} + \widehat{CD} = 120^\circ$$

$$y = \frac{120^\circ + 90^\circ}{2} = \frac{210^\circ}{2} = y = 105^\circ$$