

$$1- 23^{\circ}45' + 66^{\circ}15' = 90$$

$$AB = 2 \cdot 66^{\circ}15' \rightarrow AB = 132^{\circ}30'$$

$$\hat{A}PB = \frac{AB}{2} \rightarrow \frac{132^{\circ}30'}{2} \quad \hat{A}PB = 66^{\circ}15'$$

Alternativa E

$$2- \hat{EPF} = 20^{\circ}$$

$$\hat{PAD} = 20^{\circ} + 20^{\circ} + x = 180^{\circ}$$

$$\hat{AOB} = 40^{\circ}$$

$$\hat{PAD} = x = 140^{\circ}$$

$$\hat{APD} = 20^{\circ}$$

$$\hat{CAD} = 40^{\circ} \rightarrow \hat{COD} = \text{Arco CD} = 2 \cdot 40^{\circ} = 80^{\circ}$$

Alternativa

E

$$3- 35^{\circ} = \frac{AB}{2} \rightarrow x = \frac{\hat{AB}}{2} = 35^{\circ}$$

$$d + 35^{\circ} + 50^{\circ} = 180^{\circ}$$

$$d = 180^{\circ} - 50^{\circ} - 35^{\circ}$$

$$d = 180 - 85 = 95^{\circ}$$

Alternativa

A

$$4- d = \frac{\hat{AB}}{2} \rightarrow \hat{AB} = 2d$$

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

$$2B + 2d = 2\pi (\div 2)$$

$$B = \frac{\hat{CD}}{2} \rightarrow \hat{CD} = 2B$$

2π e' igual

a 360

$$B + 2 = \pi$$

Alternativa C

$$5- \hat{X} = \hat{A}B \\ \hat{Z} = \hat{C}D$$

$$\hat{Z} = \frac{\hat{X}}{2}$$

$$\hat{Y} = \frac{\hat{C}D}{2} \rightarrow \hat{Y} = \frac{\hat{X}}{2}$$

$$\hat{C}D = \frac{\hat{X}}{2}$$

$$\frac{\frac{\hat{X}}{2}}{1}$$

$$\hat{Y} = \frac{\hat{X}}{2} \cdot \frac{1}{2} = \hat{Y} = \frac{\hat{X}}{4}$$

$$6- \hat{Z} + 45^\circ + 60^\circ = 180^\circ$$

$$\hat{Z} = 180^\circ - 105^\circ$$

$$\hat{Z} = 75^\circ$$

$$45^\circ = \frac{\hat{E}D}{2} \rightarrow \hat{E}D = 90^\circ$$

$$\hat{Z} = \frac{\hat{A}C}{2} \rightarrow 75^\circ = \frac{\hat{A}C}{2}$$

$$\hat{X} = \frac{\hat{A}C}{2} \rightarrow \hat{X} = 75^\circ$$

$$60^\circ = \frac{\hat{A}E + \hat{C}D}{2}$$

$$\hat{A}E + \hat{C}D = 120$$

$$\hat{Y} = \frac{\hat{A}E + \hat{C}D + \hat{E}D}{2}$$

$$\hat{Y} = \frac{120^\circ + 90^\circ}{2} = \frac{210^\circ}{2}$$

$$\hat{Y} = 105^\circ$$