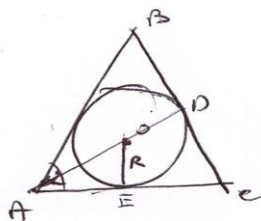


275
6 (E)



$$AE = R / \tan \frac{\alpha}{2} \quad \triangle AOE$$

$$AC = 2EA = \frac{2R}{\tan \frac{\alpha}{2}}$$

$$\frac{AD}{\sin \alpha} = \frac{AC}{\sin(180 - \frac{1}{2}\alpha)}$$

* $\triangle ABC$ ուղղանկյուն եռանկյուն

$$AD = \frac{2R \sin \alpha}{\tan \frac{\alpha}{2} \sin \frac{3}{2}\alpha} = \frac{4R \sin \frac{\alpha}{2} \cos \frac{\alpha}{2}}{\frac{\sin \frac{\alpha}{2}}{\cos \frac{\alpha}{2}} \sin \frac{3}{2}\alpha} = \frac{4R \cos^2 \frac{\alpha}{2}}{\sin \frac{3}{2}\alpha}$$

$$(2) \quad S_{ABC} = S_{ABO} + S_{AOC} + S_{BOC} = \frac{R}{2} AB + \frac{R}{2} AC + \frac{R}{2} BC$$

$$= \frac{R}{2} (AB + AC + BC)$$

$$\frac{AE}{AB} = \cos \alpha \rightarrow AB = \frac{AE}{\cos \alpha} = \frac{R}{\tan \frac{\alpha}{2} \cos \alpha}$$

$$S_{ABC} = \frac{R}{2} (AB + AC + BC) = \frac{R}{2} (2AB + BC) =$$

$$S_{ABC} = \frac{R}{2} \left(\frac{2R}{\tan \frac{\alpha}{2} \cos \alpha} + \frac{2R}{\tan \frac{\alpha}{2}} \right) = \frac{R^2}{\tan \frac{\alpha}{2}} \left(\frac{1}{\cos \alpha} + 1 \right)$$

$$S_{ABC} = \frac{R^2}{\tan \frac{\alpha}{2}} \left(\frac{1 + \cos \alpha}{\cos \alpha} \right)$$