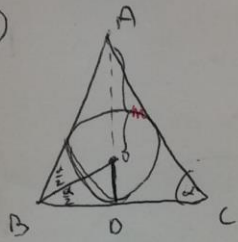


2.67
6

(11)



$$\angle ABO = 90 - \alpha$$

$$\triangle ABO: \frac{AO}{\sin \frac{\alpha}{2}} = \frac{BO}{\sin(90 - \alpha)}$$

$$\frac{m \cos \alpha}{\sin \frac{\alpha}{2}} = BO$$

$$\triangle BOD: \frac{BD}{BO} = \cos \frac{\alpha}{2}$$

$$BD = BO \cos \frac{\alpha}{2} = \frac{m \cos \alpha}{\sin \frac{\alpha}{2}} \cos \frac{\alpha}{2}$$

$$BD = m \cos \alpha \cot \frac{\alpha}{2}$$

$$BC = 2BD = 2m \cos \alpha \cot \frac{\alpha}{2}$$