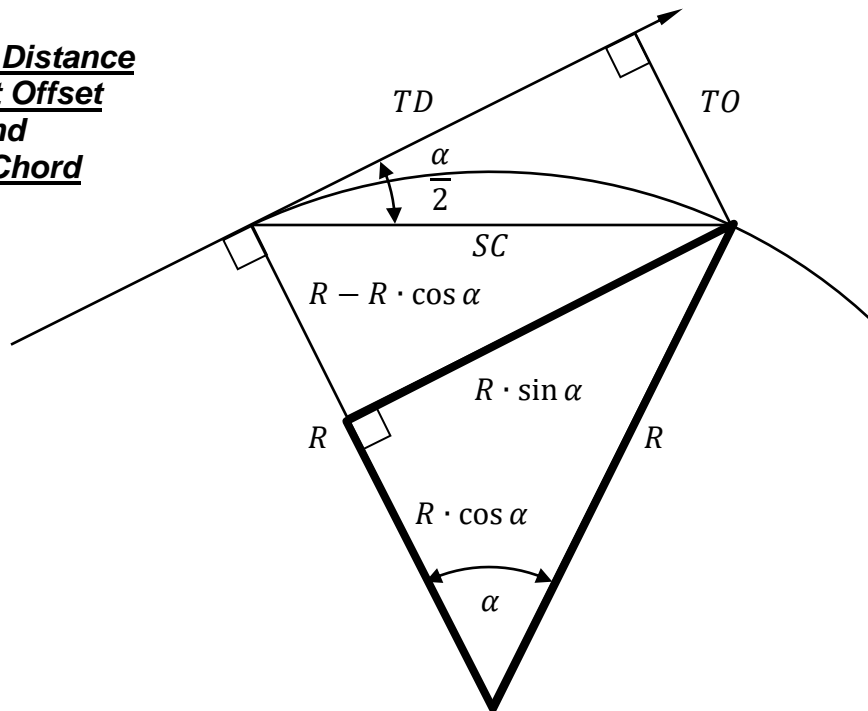


Tangent Distance
Tangent Offset
And
Short Chord



$$TD = R \cdot \sin \alpha$$

$$TO = R - R \cdot \cos \alpha$$

$$SC = 2 \cdot R \cdot \sin \frac{\alpha}{2}$$

and

$$SC^2 = TD^2 + TO^2$$