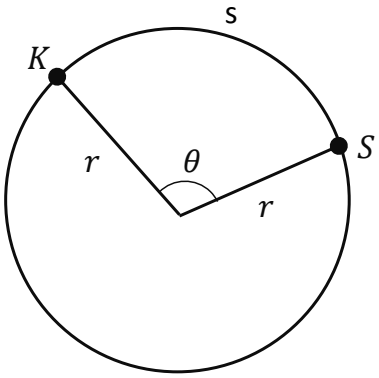
1.



$$r = 3840 \text{ } \cancel{\text{mi}} \left(\frac{1.609 \text{ } \cancel{\text{km}}}{1 \text{ } \cancel{\text{mi}}}\right)\left(\frac{1000 \text{ m}}{1 \text{ } \cancel{\text{km}}}\right) = 6.18$$

$$s = 5150 \text{ } \cancel{\text{mi}} \left(\frac{1.609 \text{ } \cancel{\text{km}}}{1 \text{ } \cancel{\text{mi}}}\right)\left(\frac{1000 \text{ m}}{1 \text{ } \cancel{\text{km}}}\right) = 8.29$$

$\theta = ?$

$$s = r\theta$$

$$\frac{s}{r} = \theta$$

$$\frac{8.29}{6.18} = \theta$$

$$1.34 \text{ rad} = \theta$$