Arc Circle Example

Math 130 *Kovitz*

If an angle of $220°$ has an arc of 66 feet, what is the radius of the circle? The answer may be left as $\frac{N}{\pi}$.

Answer: First convert $220°$ to radian measure.

$$220° = 220°\left(\frac{\pi}{180°}\right) = \frac{11\pi}{9} \text{ radians}$$

Then $r = \dfrac{s}{\theta} = \dfrac{66}{11\pi/9} = \dfrac{66(9)}{11\pi} = \dfrac{54}{\pi}$ feet.