Radians

A radian is a central angle whose sides intercept an arc equal in length to the radius of the circle.

C = πd or C = 2πr, π radians is equivalent to 180˚

$$\frac{R}{\pi} = \frac{D}{180°}$$

Conversion Factor: radians to degrees: if R = 1, then

$$\frac{1}{\pi} = \frac{D}{180°}$$

$$\frac{180°}{\pi} = D$$

$$\therefore \rightarrow 1 \text{ radian} = \frac{180°}{3.14} \approx 57°$$

Conversion Factor: degrees to radians: if $D = 1$

$$\frac{R}{\pi} = \frac{1°}{180°}$$

$$R = \frac{\pi}{180}$$

$$\therefore \rightarrow 1 \text{ degree} = \frac{3.14}{180} \approx .017 \text{ radians}$$

$$D \approx 57\,R \quad \text{and} \quad R \approx .017\,D$$