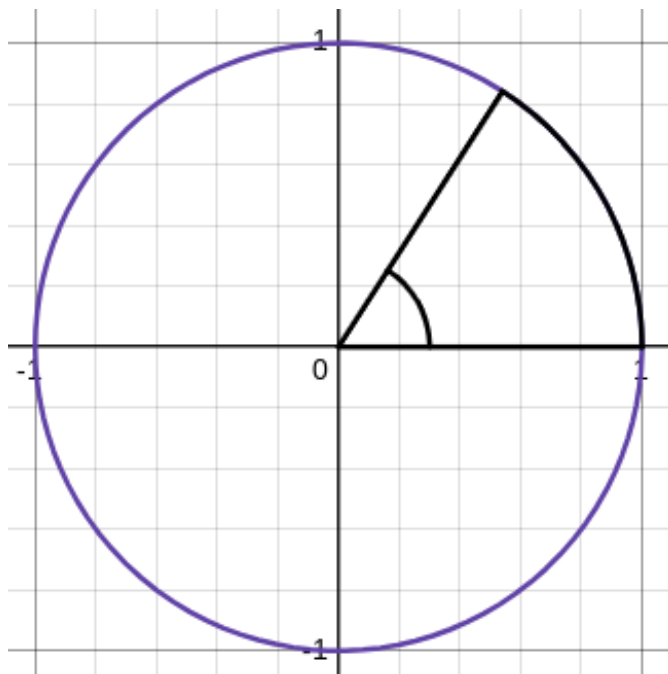


## Precalculus 1.3 Key Points

### Radians:

Radians, like degrees, are a way to measure angles.

1 radian is the angle created by an arc with a length equal to the radius of a circle and is approximately equal to 57.296 degrees.



There are exactly 360 degrees or  $2\pi$  radians in a circle ( $\pi \approx 3.14159$ ).  
Thus,  $\pi \text{ rad} = 180^\circ$

To convert degrees to radians, multiply by  $\frac{\pi}{180}$

$$90^\circ \cdot \frac{\pi}{180} = \frac{\pi}{2} \text{ rad}$$

To convert radians to degrees, multiply by  $\frac{180}{\pi}$

$$\frac{\pi}{3} \text{ rad} \cdot \frac{180}{\pi} = 60^\circ$$

Note that angle measurements can also be negative.  $\frac{3}{2}\pi \text{ rad}$  is the same angle as  $-\frac{1}{2}\pi \text{ rad}$

# Precalculus 1.3 Key Points

## Unit Circle:

A unit circle is a circle with a radius of 1. Below is a filled out unit circle, typically labeled with a few key angles(in degrees/radians) and points:

