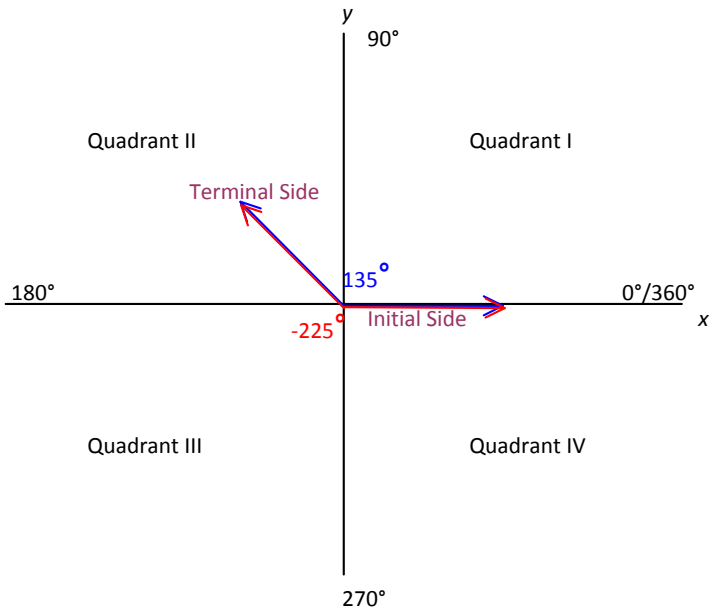
Radian and Degree Measure



Initial Side - The positive *x*-axis

Terminal Side - The position after rotation

Standard Position - The position of an angle whose initial side coincides with the positive *x*-axis

Coterminal Angles - Angles that have the same initial and terminal sides

Positive Angle - An angle generated in the counterclockwise direction

Negative Angle - An angle generated in the clockwise direction

To Convert Degrees to Radians, Multiply By:

$$\frac{\pi}{180^\circ}$$

To Convert Radians to Degrees, Multiply By:

$$\frac{180^\circ}{\pi}$$

Directions: Convert the angle measure from degrees to radians.

1. 150°

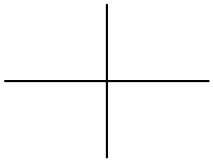
2. 315°

3. -540°

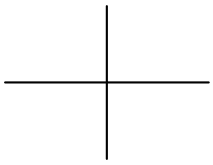
4. -115°

Directions: Determine the quadrant in which the angle lies and sketch the angle in standard position.

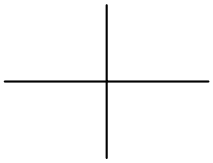
5. $\frac{\pi}{3}$



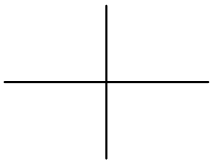
6. $\frac{5\pi}{4}$



7. $-\frac{\pi}{6}$

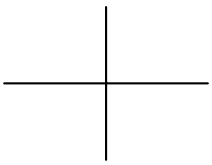


8. 3.2

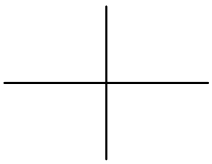


Directions: Find two coterminal angles in radian measure (one positive and one negative) for the given angle.

9. -30°



10. $-\frac{11\pi}{4}$



11. $-\frac{7\pi}{2}$