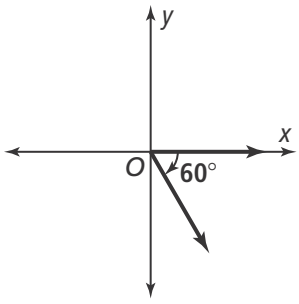
# 7-2 Additional Practice

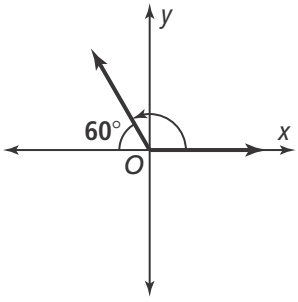
## Angles and the Unit Circle

**Find the measure of each angle as a positive angle measure, a negative angle measure, and an angle measure that is greater than 360°.**

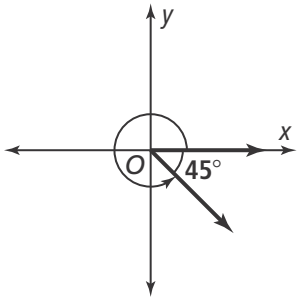
**1.**




**2.**

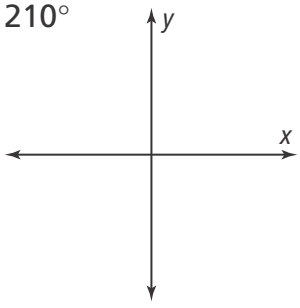



**3.**

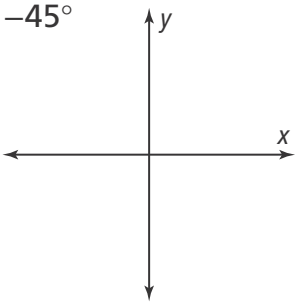



**Sketch each angle in standard position.**

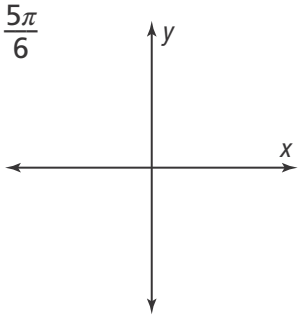
**4.** 210°




**5.** −45°




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




**Find the measure of an angle in standard position for each reference angle.**

**7.** 10° in Quadrant II

**8.** 35° in Quadrant IV

**9.** 34° in Quadrant III

**Convert each angle to degrees.**

**10.** $\frac{3\pi}{2}$ = _____ degrees

**11.** $-\frac{6\pi}{5}$ = _____ degrees

**12.** $\frac{7\pi}{4}$ = _____ degrees

**Convert each angle to radians.**

**13.** 140° degrees = _____

**14.** −160° degrees = _____

**15.** 330° degrees = _____

**16.** A Ferris wheel rotates $\frac{9\pi}{8}$ radians prior to making a stop. The total height of the Ferris wheel is 246 ft. How far around did the Ferris wheel travel? Round to the nearest whole foot.

**17.** How does the formula for the circumference of a circle relate to one rotation around the unit circle?