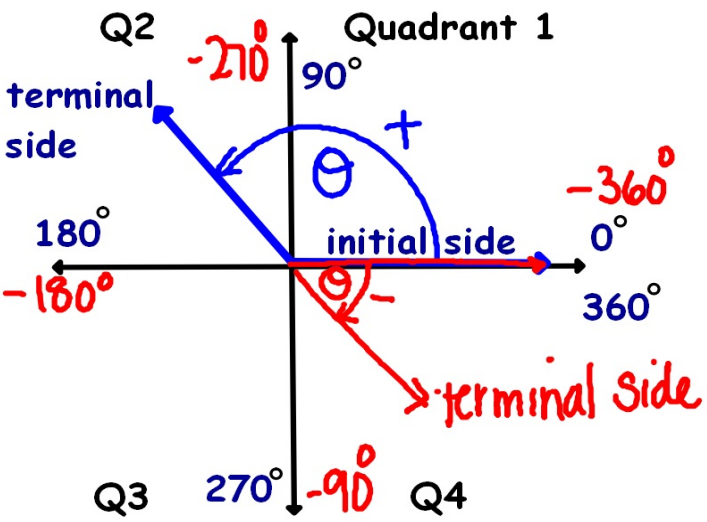
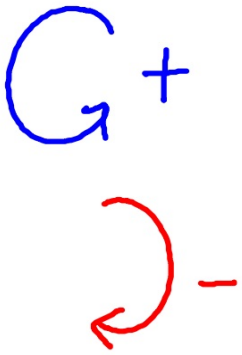
13-2 Angle and Radian Measure

Trig. Std. 1.0

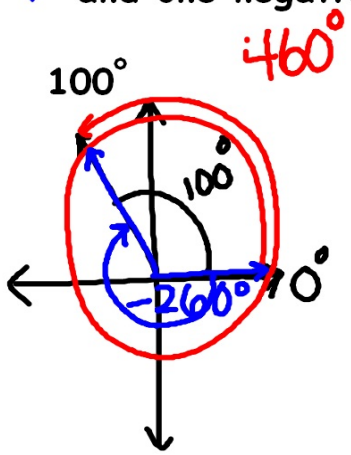
Angles in Standard Position

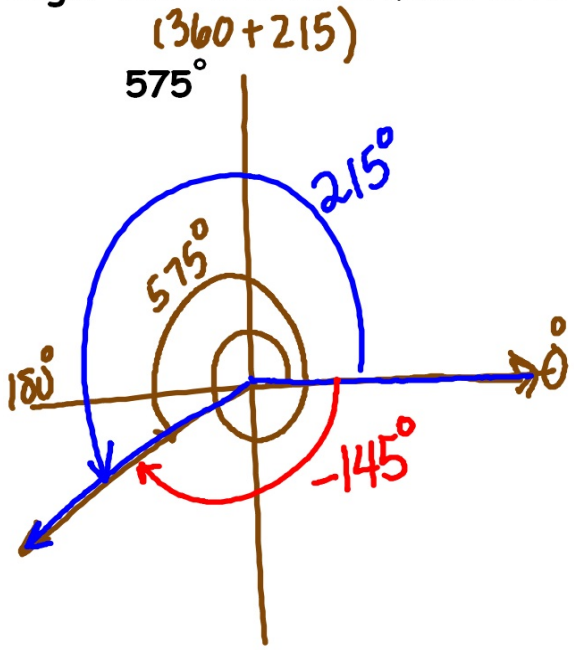


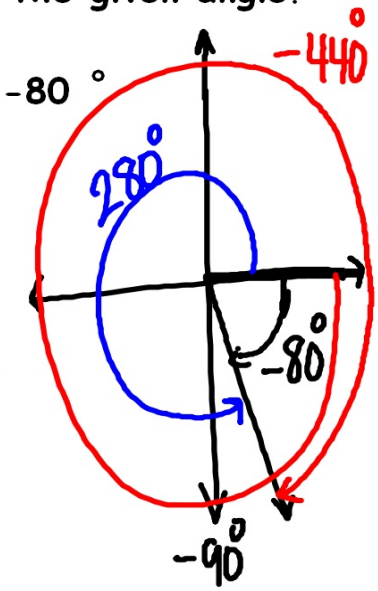


Two angles in standard position are *coterminal* if their terminal sides coincide.

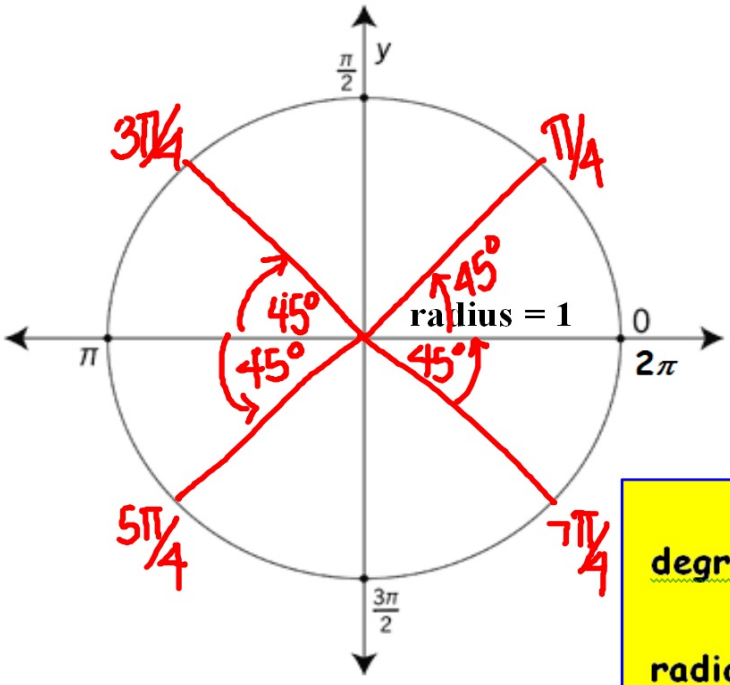
1 Draw an angle in standard position. Find one positive angle and one negative angle that are coterminal with the given angle.







Angles can also be measured in *radians* .



Unit Circle

$2\pi = 360^\circ$

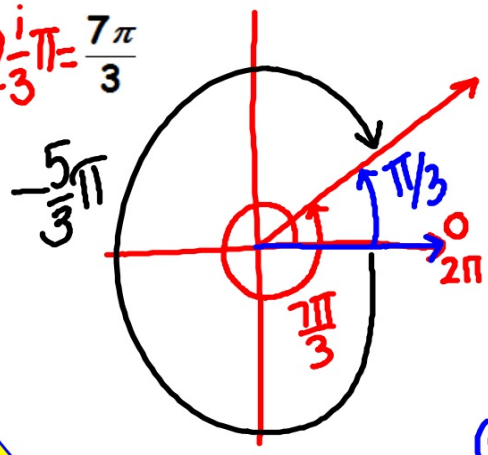
$\pi = 180^\circ$

degrees to radians: multiply by $\frac{\pi}{180^\circ}$

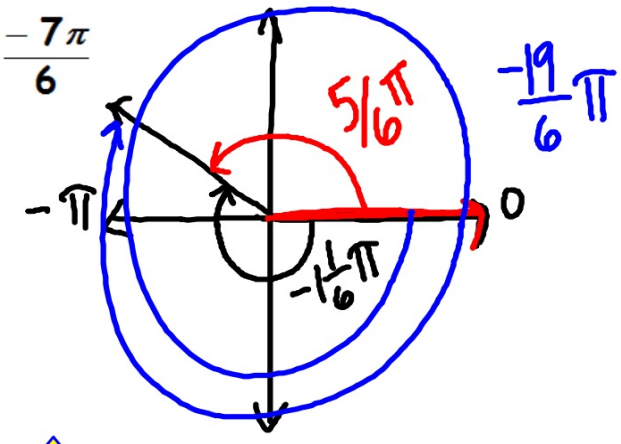
radians to degrees: multiply by $\frac{180^\circ}{\pi}$

2 Draw the angle in standard position. Find one positive and one negative angle that are coterminal with the given angle.

$2\frac{1}{3}\pi = \frac{7\pi}{3}$



$-1\frac{1}{6}\pi = \frac{-7\pi}{6}$



3 Convert -220° to radians. (π)

$-220^\circ \cdot \frac{\pi}{180^\circ} = -\frac{11}{9}\pi$

4 Convert $\frac{5\pi}{12}$ to degrees.

$\frac{5\pi}{12} \cdot \frac{180^\circ}{\pi} = 75^\circ$

Q1 Q1