

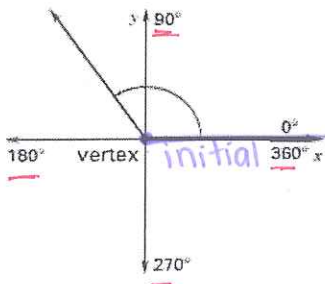
**Learning Target(s):** I am able to draw angles in standard position  
I am able to find coterminal angles.

**13.2 Notes: Define General Angles and Use Radian Measure Day 1**

**initial side and terminal side** – An angle can be formed by fixing one ray, called the initial side and rotating the other ray called the terminal side about the vertex.

\*\*The terminal side of an angle may make more than one complete rotation

**standard position** – The position of an angle whose vertex is at the origin and its initial side lies on the positive x-axis.



\* Going counterclockwise about the origin results in a positive angle measure; going clockwise about the origin results in a negative angle measure.

**Ex. 1**

Draw an angle with the given measure in standard position.

a.  $+405^\circ$  + counterclockwise

$$\begin{array}{r} 405 \\ - 360 \\ \hline 45^\circ \end{array}$$

b.  $-65^\circ$  clockwise

**coterminal** – angles in standard position whose terminal sides coincide

\* Find coterminal angles by adding or subtracting multiples of  $360^\circ$

**Ex. 2**

Find one positive and one negative angle that are coterminal with 210.

$210^\circ$

$$\begin{array}{r} 210 \\ + 360 \\ \hline 570 \end{array} \quad \begin{array}{r} 210 \\ - 360 \\ \hline -150^\circ \end{array}$$

**Try it!**

1. Draw an angle with the given measure in standard position.

a.  $500^\circ$

b.  $-50^\circ$

c.  $640^\circ$

d.  $-150^\circ$

2. Find one positive and one negative angle that are coterminal with:

a.  $-215^\circ$

b.  $570^\circ$

c.  $65^\circ$

d.  $230^\circ$

Find the degrees for the special angles.

