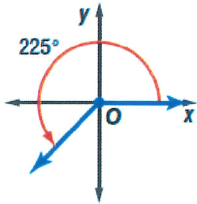


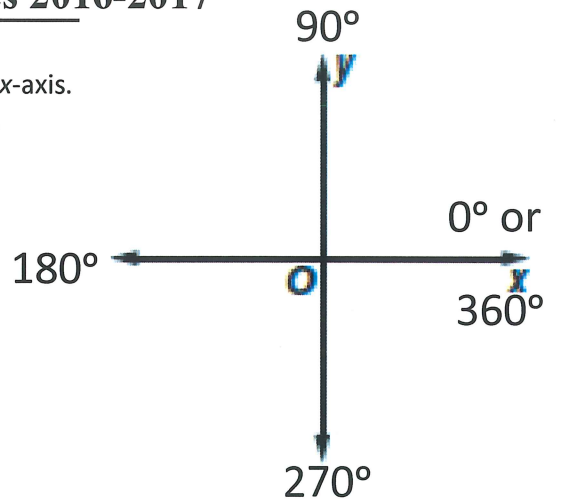
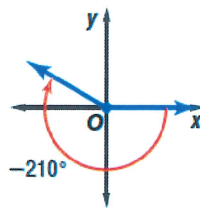
Sketching Angles Notes Degrees 2016-2017

Remember: When sketching an angle, always start at the positive x-axis.
The positive x-axis represents 0° or 360°.

Positive Angle Measure
counterclockwise

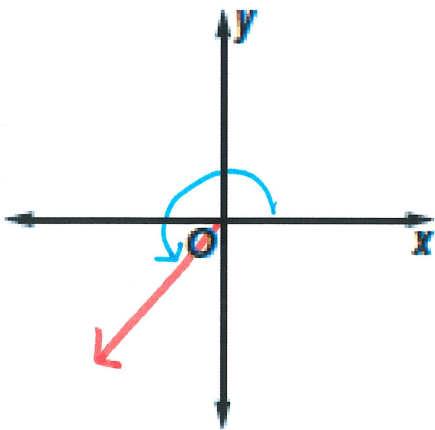


Negative Angle Measure
clockwise

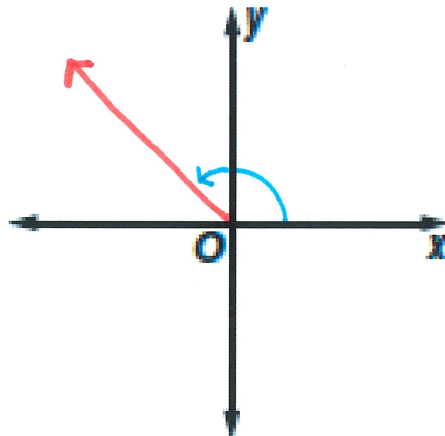


Examples: Sketch the angles.

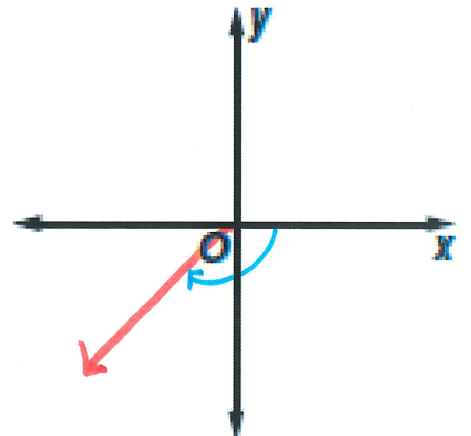
1. 225°



2. 120°

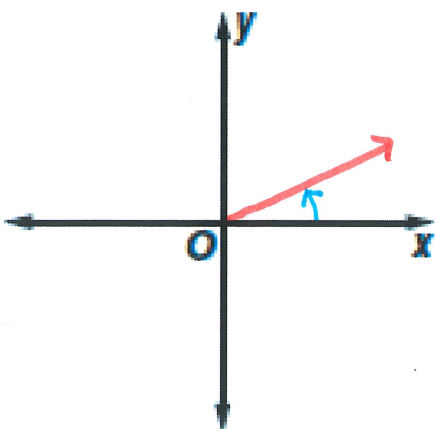


3. -120°

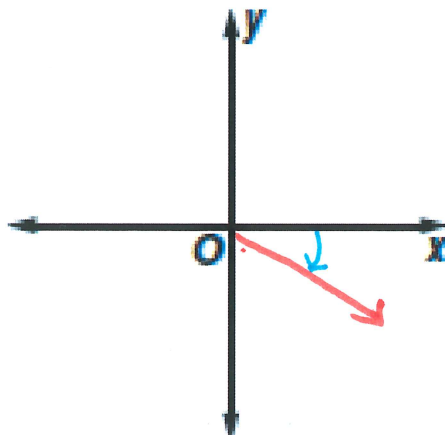


You try:

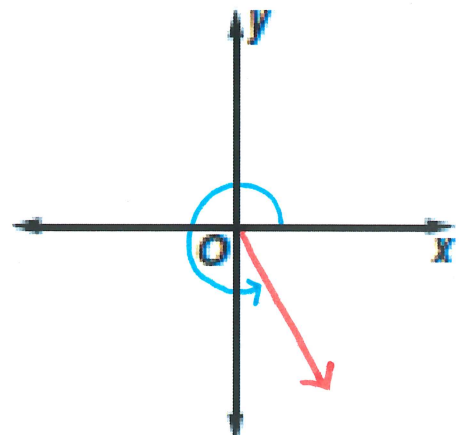
4. 30°



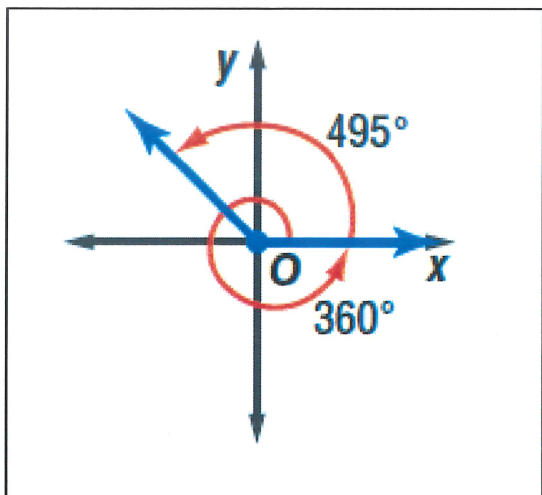
5. -30°



6. 300°



Angle of Rotation
In trigonometry, an angle is sometimes referred to as an *angle of rotation*.

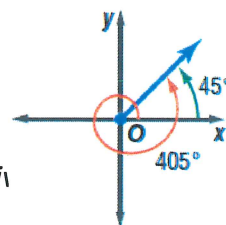


What would the angle measure be if it took another full rotation?

Coterminal Angles: The graph shows a 405° angle and a 45° angle. They both share the same terminal side. When two angles in standard position have the same terminal sides, they are called coterminal angles.

$$405^\circ - 360^\circ = 45^\circ$$

In degrees, you add/subtract 360



Examples: Determine what quadrant the angle is located, then find one angle with positive measure and one angle with negative measure coterminal with each angle.

1. 240°

Quadrant: III

Pos: $240 + 360 = 600^\circ$

Neg: $240 - 360 = -120^\circ$

You try:

1. 585°

Quadrant: III

Pos: $585 + 360 = 945^\circ$
OR
 225°

Neg: $585 - 360 = 225^\circ$ pos!
 -360

$= -135^\circ$

2. 690°

Quadrant: IV

Pos: $690 + 360 = 1050^\circ$
OR
 330°

Neg: $690 - 360 = 330^\circ$ pos
 -360
 $= -30^\circ$

2. 60°

Quadrant:

Pos:

Neg:

3. -45°

Quadrant: IV

Pos: $-45 + 360 = 315^\circ$

Neg: $-45 - 360 = -405^\circ$

3. -135°

Quadrant: III

Pos: $-135 + 360 = 225^\circ$

Neg: $-135 - 360 = -495^\circ$

4. 480°

Quadrant: II

Pos: $480 + 360 = 840^\circ$
OR
 120°

Neg: $480 - 360 = 120^\circ$
 -360
 $= -240^\circ$

4. 600°

Quadrant: III

Pos: $600 + 360 = 960^\circ$
OR
 240°

Neg: $600 - 360 = 240^\circ$
 -360
 $= -120^\circ$