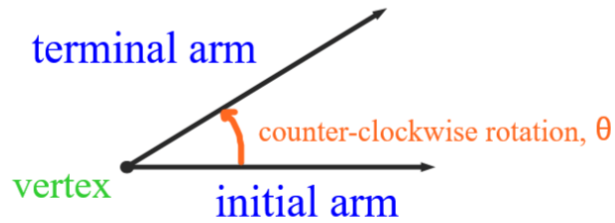


The next unit will be **Trigonometry**

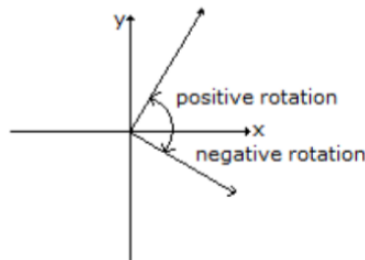
- Some of the topics will be
- 1) rotation angles
 - 2) reference angles
 - 3) coterminal angles
 - 4) CAST Rule
 - 5) Special triangles

Rotation Angles



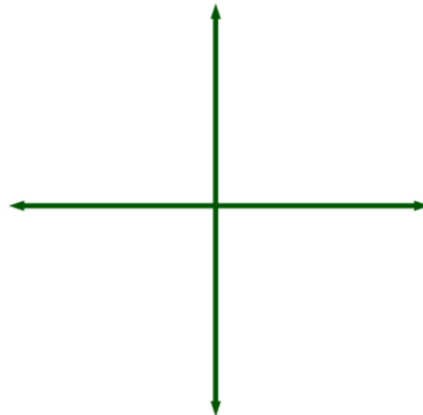
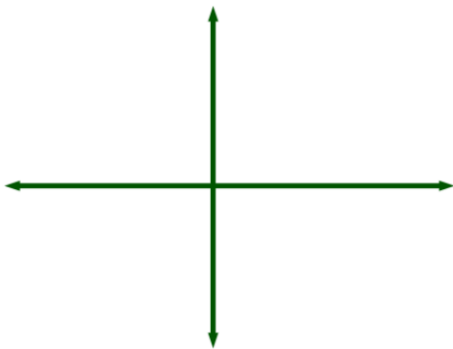
- **standard position** - when the initial arm is on the **positive** x -axis and the vertex is at the origin.

ex: positive rotation - counter clockwise (ccw)



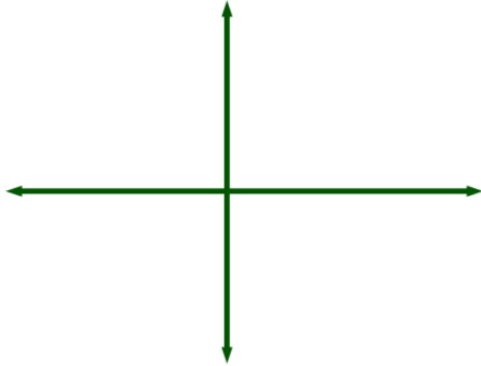
#1: 275°

#2: 532°

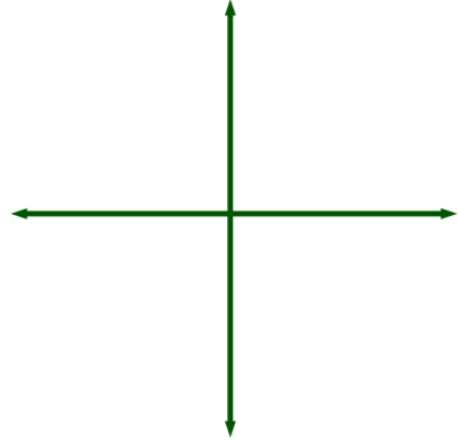


ex: negative rotation - clockwise (cw)

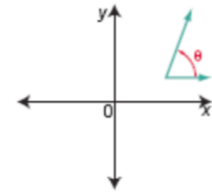
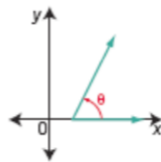
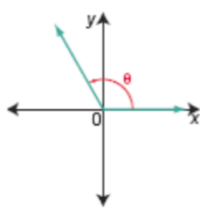
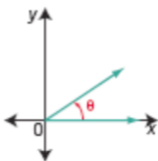
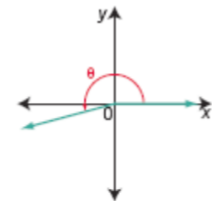
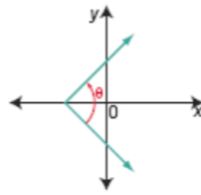
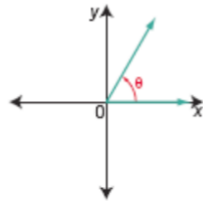
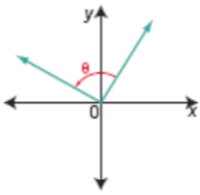
#3: -140°



#4: -714°



Circle the angles that are in standard position.



Definition of Coterminal Angles

Coterminal Angles are angles drawn in standard position that share a terminal side.

For any angle θ , an angle coterminal with θ can be obtained by using the formula $\theta + k \cdot (360^\circ)$, where k is any integer.

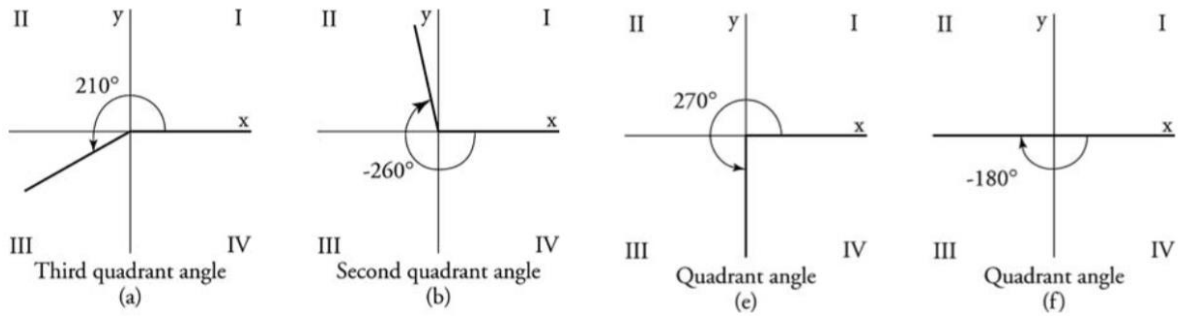
State both a positive and negative angle that would be coterminal with each of the following...

a) 10° b) -235°

Coterminal angles are angles of different size that have their terminal arm in the same place.

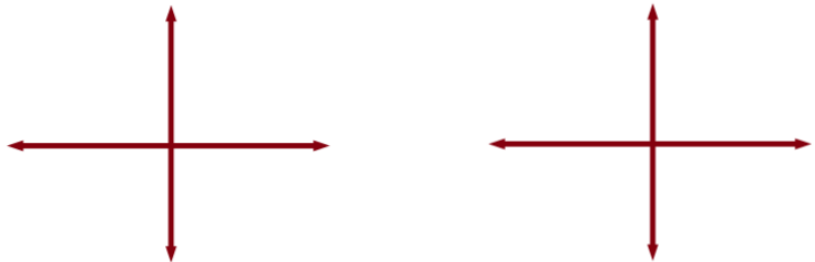
To find coterminals just add or subtract 360° . Any angle will have an infinite number of coterminals.

Angles that are in standard position are said to be **quadrantal** if their terminal side coincides with a coordinate axis. Angles in standard position that are not quadrantal fall in one of the four quadrants, as shown below...



- Quadrantal angle: terminal arm lies on a quadrant boundary (axis)

examples...



Within which quadrant would the terminal arm for each of the following rotation angles be found?

94°

500°

-100°

180°

-300°

Page 83 #'s 1-4