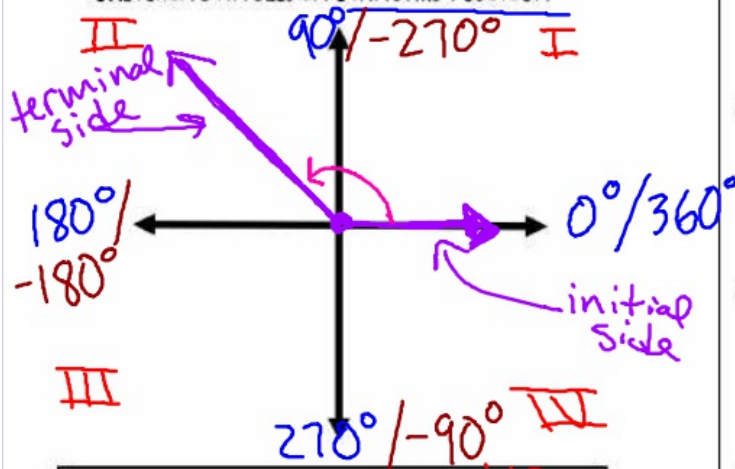


Name: _____ Hour: _____ Date: _____

Sketching Angles in Standard Position/Co-Terminal Angles Notes

SKETCHING ANGLES IN STANDARD POSITION



An angle is in standard position if its vertex is at the origin and the initial side is on the x-axis.

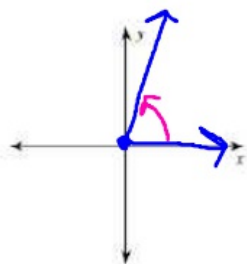
Things to Remember About Angles in Standard Position:

- Positive angles move counter-clockwise.
- Negative angles go clockwise
- The terminal side determines the size of the angle.

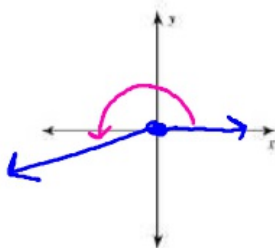
Sketching Angles in Standard Position Examples:

DIRECTIONS: State which quadrant the terminal side of each angle lies in and then sketch the angle.

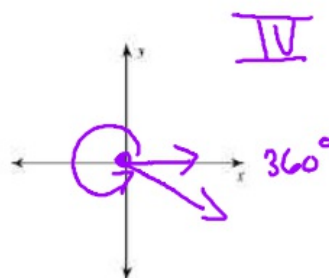
1) 60° Q I



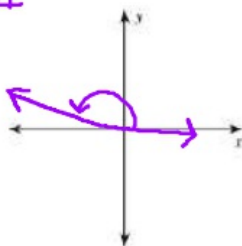
2) 210° Q III



3) 315°

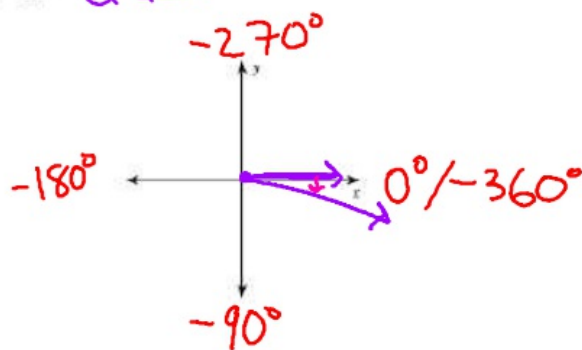


4) ~~315°~~ Q II
 160°

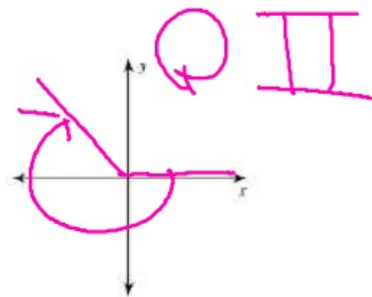


What about negative angles???

1) -10° Q IV

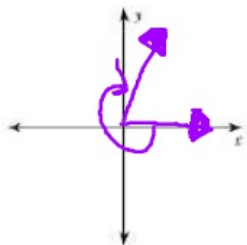


2) -240°



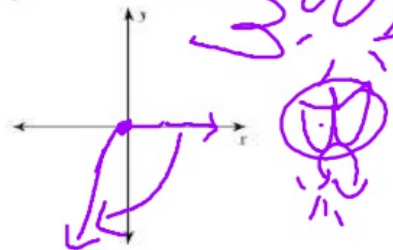
3) -300°

Q I



4) -120°

Q III



Coterminal Angles:

DEFINITION: angles that share a terminal side.

Main Ideas:

- We usually want angles between 0° and 360°
- If positive, subtract 360° .
- If negative add 360° .

Examples: Find an angle between 0° and 360° coterminal with the given angle.

1) $400^\circ - 360^\circ = 40^\circ$

2) $-20^\circ + 360^\circ = 340^\circ$

3) $650^\circ - 360^\circ = 290^\circ$

4) $-800^\circ + 360^\circ = -440^\circ + 360^\circ = -80^\circ + 360^\circ = 280^\circ$