Objective: Describe angles using radian and degree measures

Monday 3/30

Radian and Degree Measure

- Angle definitions and terms
- Standard position of angles
- Positive and negative angles
- Angle measures in degrees
- Sketching angles in standard position in degrees
- State the quadrant in which an angle lies

Objective: Describe angles using radian and degree measures

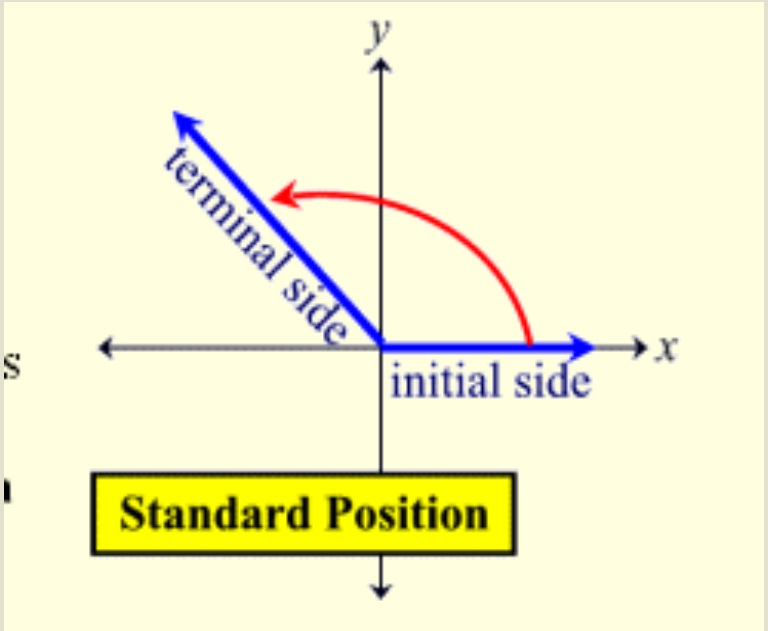
Notes: Radian and Degree Measure

The word trigonometry means: “measurement of triangles.”

An angle is formed by rotating an angle about its endpoint.

An angle in standard position has it’s initial side pointing along the positive x-axis.

The angle shown in the picture is rotated counterclockwise about the origin and the angle lies in quadrant II.

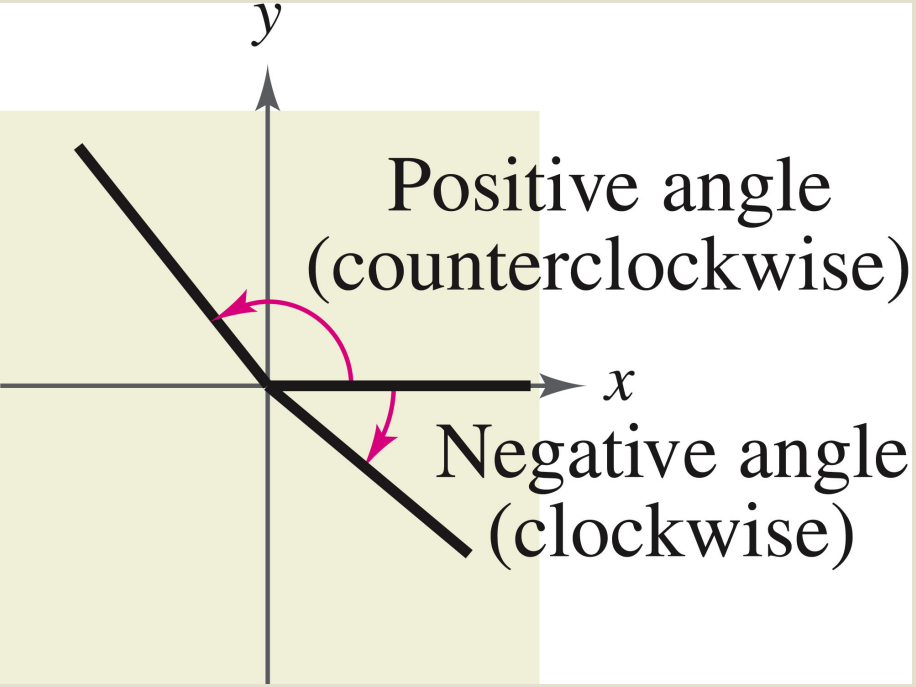


Objective: Describe angles using radian and degree measures

Notes: Radian and Degree Measure

A positive angle is formed in the counterclockwise direction.

A negative angle is formed in the clockwise direction.



(the positive angle lies in quadrant II and the negative angle lies in quadrant IV)

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Notes: Radian and Degree Measure

These are some common symbols used to represent angle measures

α – Alpha

β – Beta

ω – Omega

θ – Theta

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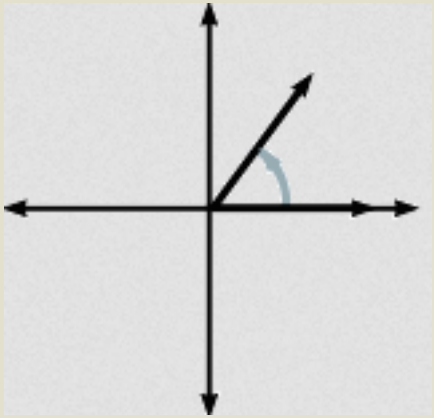
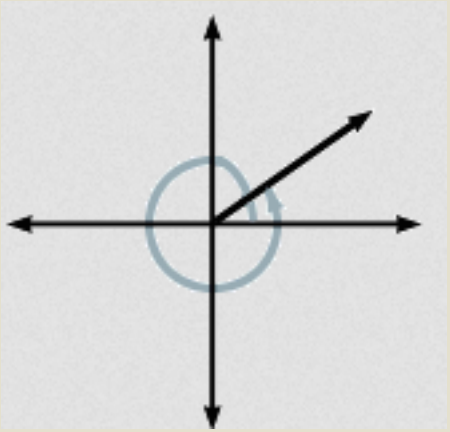
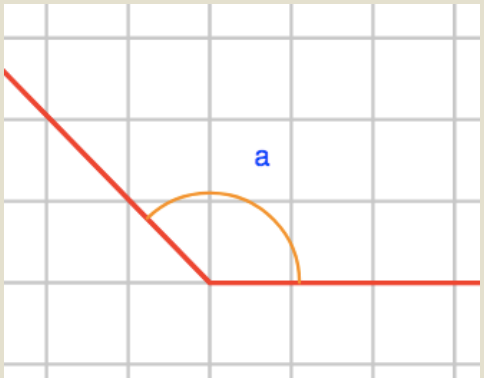
Angle Measures

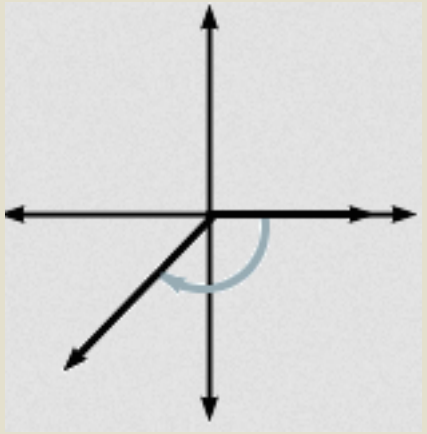
Angles can be measure in degrees or radians. You are all probably familiar with degrees.

Can you estimate the degree measure each angle?









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Angle Measures

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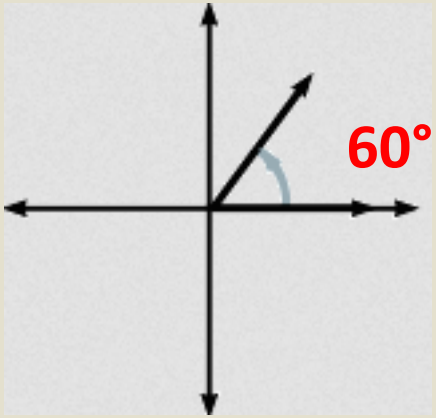

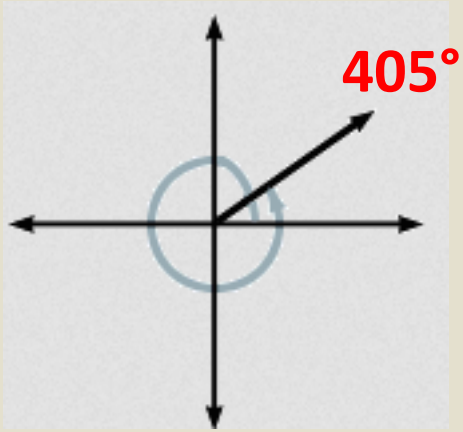

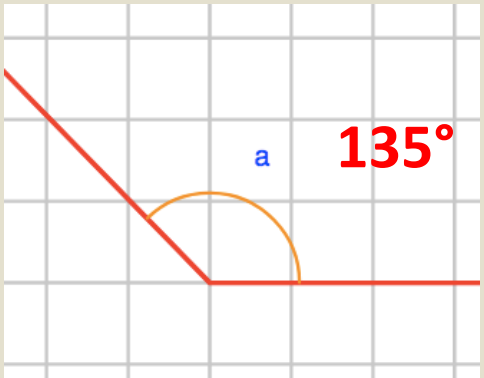

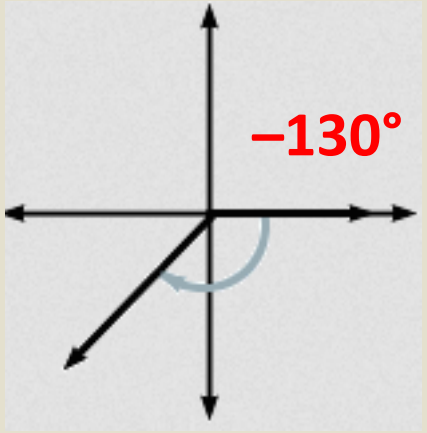

Objective: Describe angles using radian and degree measures

Practice:

Sketch each angle in standard position. (answers on next page)
State the quadrant in which the angle lies.

1. 135°
2. 225°
3. 300°

4. –60°
5. –300°
6. –135°

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Practice:

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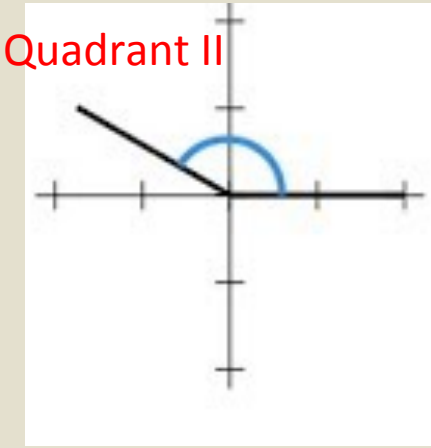
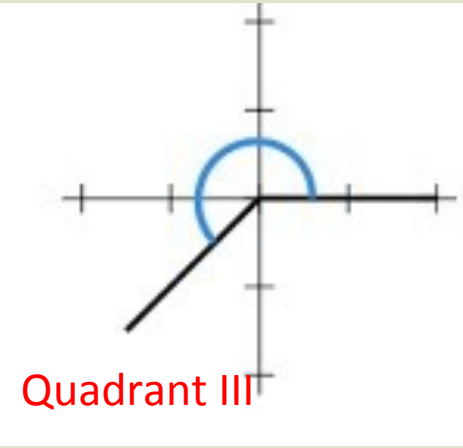
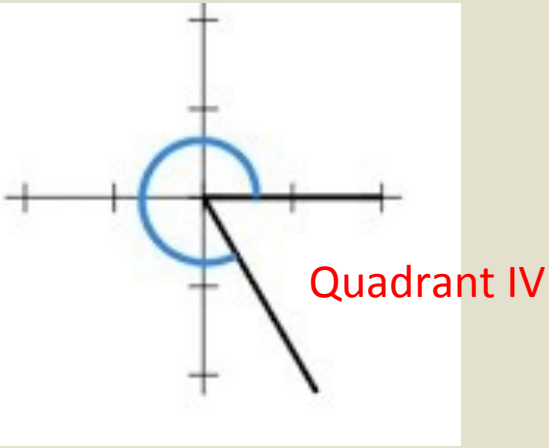
1. 135°



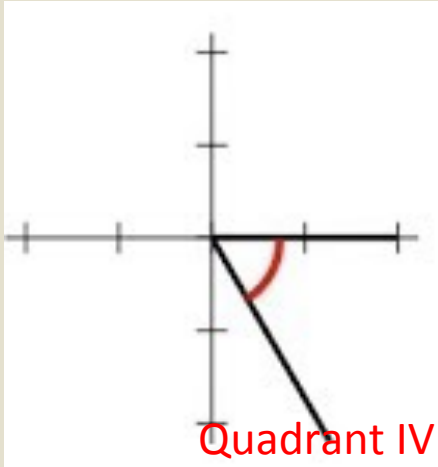
2. 225°



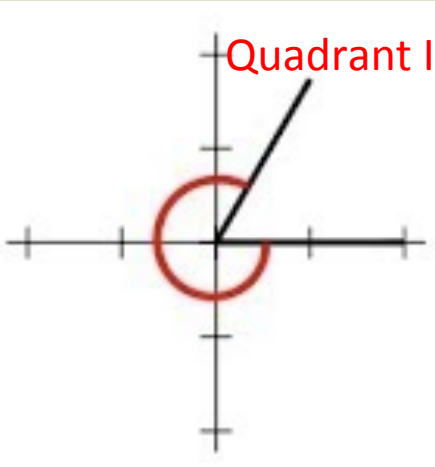
3. 300°



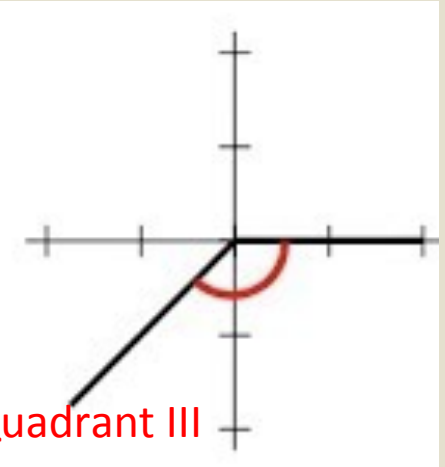
4. –60°



5. –300°



6. –135°



Objective: Describe angles using radian and degree measures

Practice:

Sketch each angle in standard position. (answers on next page)

7. 405°

8. –570°

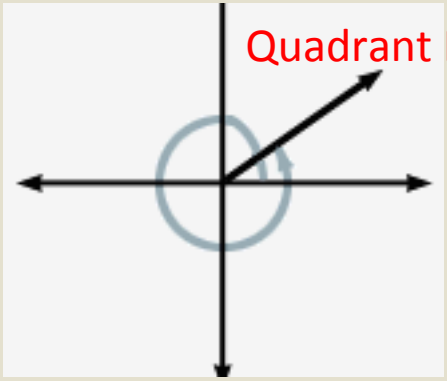
9. 800°

Objective: Describe angles using radian and degree measures

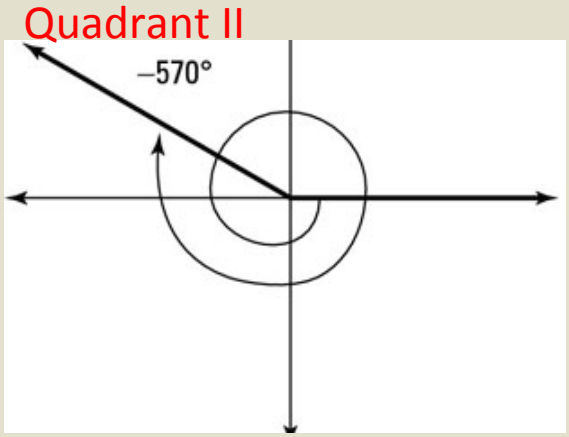
Practice:

Sketch each angle in standard position. (answers on next page)

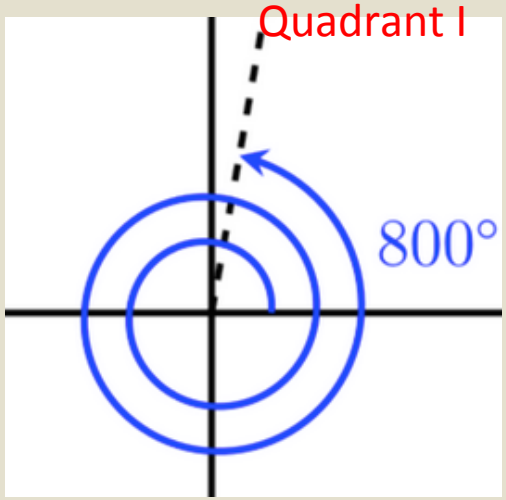
7. 405°



8. –570°



9. 800°



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Assignment:

Log in to Office 365

Complete the assignment:

Angles in Degrees (Week 1, Day 1)