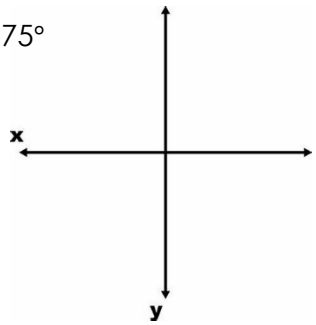
Geometry – DAY 2 Name: _____

Degree & Radian Conversions Date: _____

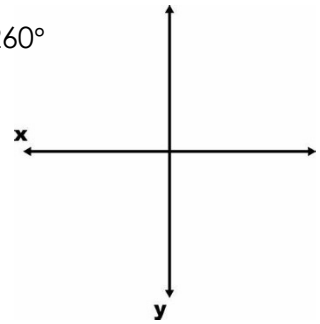
WARM-UP:

Sketch the given angle as close as you can.

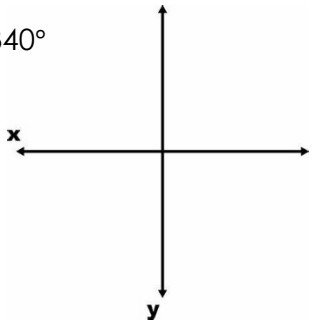
1. 75°



2. 260°

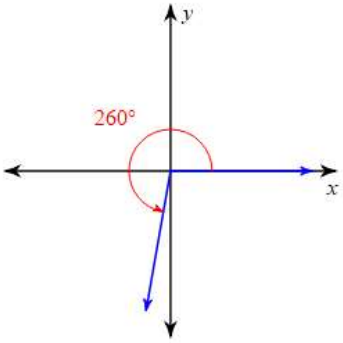


3. 340°

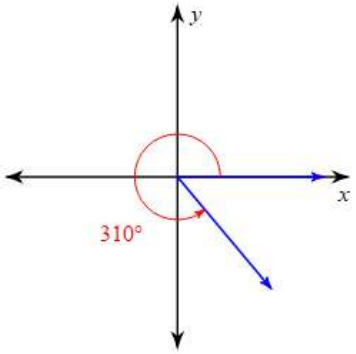


State the reference angle.

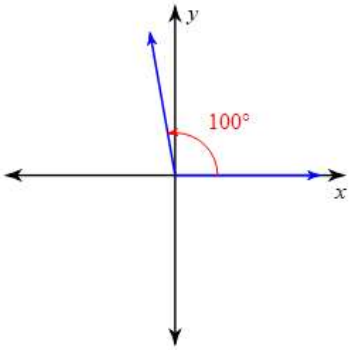
4.



5.



6.

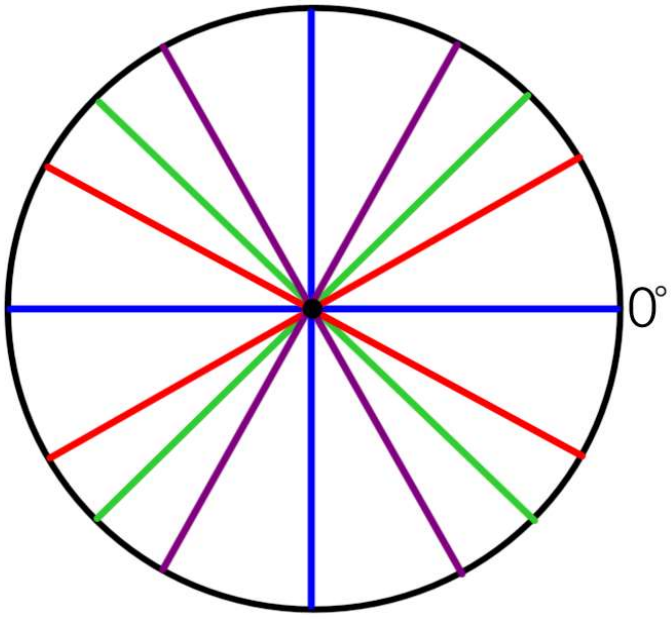


Dimensional Analysis: Convert the following. Show all your work.

7. 525 seconds to minutes

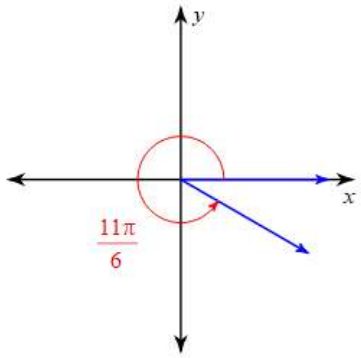
8. 18.5 feet to inches

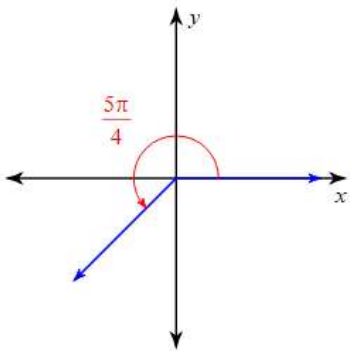
9. Fill in as much as you can of the Unit Circle, including both degrees & radians!

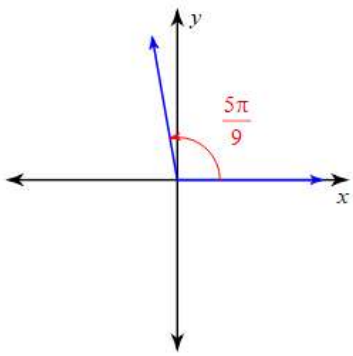


Reference Angles with Radians – Leave answer in radians.

Remember: You are finding the smallest angle that the terminal side makes with the x-axis.

1. 

2. 

3. 

Converting Degrees & Radians

We now know that 360° = 2π.

How can we find our conversion to go from **degrees to radians**?

Proof:

To convert degrees to radians, multiply by:

Examples:

1. 200°

2. 45°

3. 320°

How about our conversion to go from **radians to degrees**?

Proof:

To convert radians to degrees, multiply by:

Examples:

4. $\frac{13\pi}{18}$

5. $\frac{\pi}{3}$

6. $\frac{10\pi}{9}$