

Name: _____

Unit 6 Practice Test: Unit Circle

Objectives: I can convert from degrees to radians and radians to degrees. I can use the unit circle to evaluate trigonometric functions. I can find other trigonometric functions given a trigonometric function.

1. What is the radian measure of a 120° angle?

2. What is the degree measure of an angle of $\frac{\pi}{3}$ radians?

3. Determine the coterminal angle from $0^\circ \leq \theta < 360^\circ$, the quadrant and the reference angle of -150° .

4. If $\cos \theta = \frac{1}{2}$ and the reference angle of θ is 60° find both angles in degrees from $0^\circ \leq \theta < 360^\circ$ and both angles in radians from $0 \leq \theta < 2\pi$

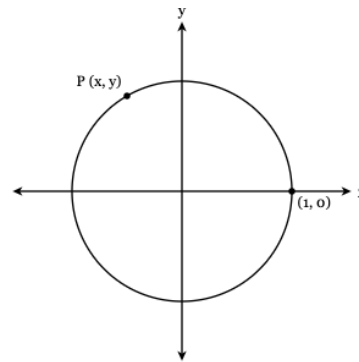
Coterminal Angle:

Quadrant:

Reference Angle:

5. If $\tan \theta = 5/12$, find $\cos \theta$, when θ is in Q3.
(Hint: draw a picture).

6. The point $P = (x, \frac{2}{3})$ lies on the unit circle shown below. What is the value of x in simplest form?



(Note: the figure is not drawn to scale)

7. Evaluate $\cot(\frac{5\pi}{3})$.

8. Given $\sec A = \frac{\sqrt{71}}{5}$ and A is in Q1, find the exact value of $\csc A$ in simplest radical form using a rational denominator.