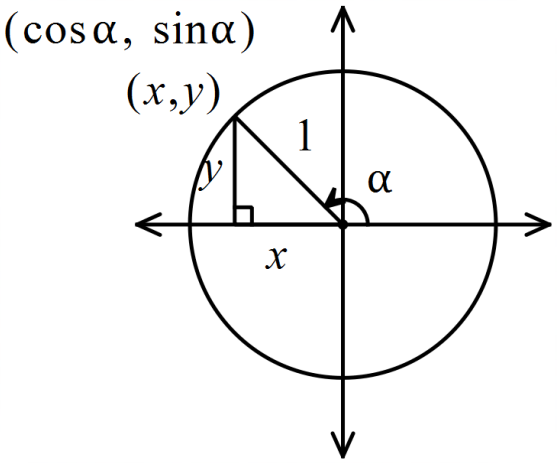
9.2

Date:

Objective:

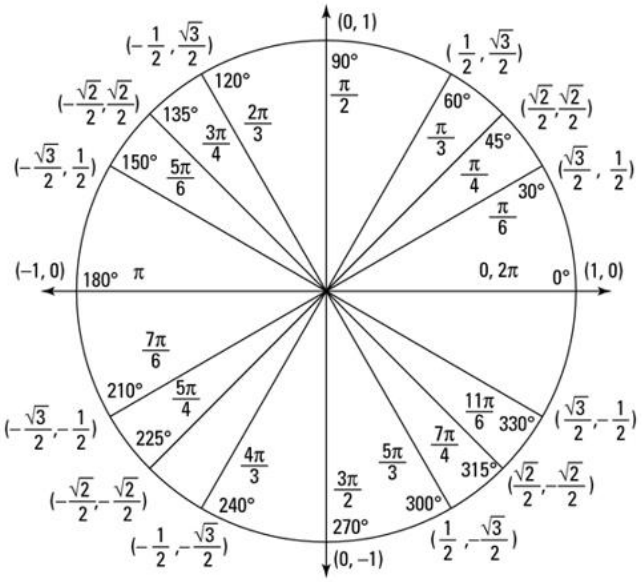
REVIEW



$\sin\alpha =$ $\cos\alpha =$

$\tan\alpha =$ $\csc\alpha =$

$\sec\alpha =$ $\cot\alpha =$



Find the angle in degrees $[0°, 360°)$ and radians $[0, 2\pi)$ on the unit circle that matches the given ordered pair. Then find all 6 trigonometric ratios for the found angle.

1. $\left(-\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$ $\theta =$ _____

$\sin\theta =$ _____ $\cos\theta =$ _____

$\tan\theta =$ _____ $\csc\theta =$ _____

$\sec\theta =$ _____ $\cot\theta =$ _____

2. $(-1, 0)$ $\theta =$ _____

$\sin\theta =$ _____ $\cos\theta =$ _____

$\tan\theta =$ _____ $\csc\theta =$ _____

$\sec\theta =$ _____ $\cot\theta =$ _____

3. $\left(\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$ $\theta =$ _____

$\sin\theta =$ _____ $\cos\theta =$ _____

$\tan\theta =$ _____ $\csc\theta =$ _____

$\sec\theta =$ _____ $\cot\theta =$ _____

1. What is a coterminal angle?

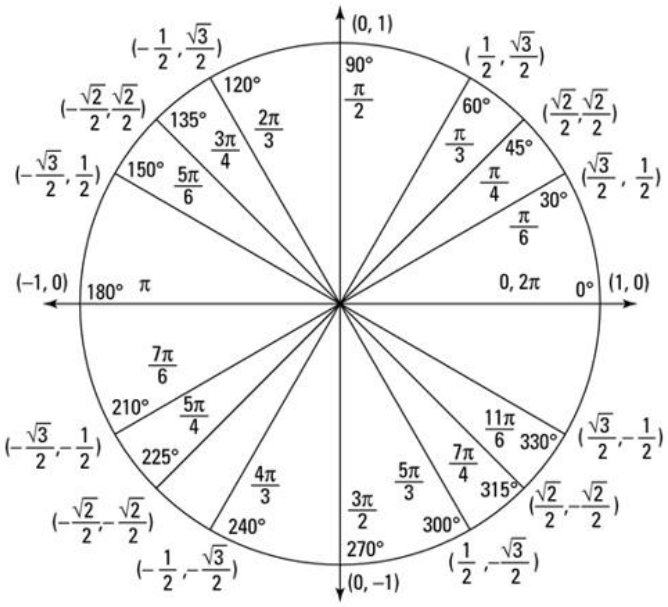
2. How do you find a coterminal angle for a degree?

3. How do you find a coterminal angle for a radian?

4. What is a coterminal angle for 225°?

5. What is a coterminal angle for $-\frac{\pi}{6}$?

6. Are $\frac{\pi}{3}$ and $\frac{7\pi}{3}$ coterminal angles?



7a. Sketch the angle $\frac{\pi}{3}$. 7b. What is the ordered pair for $\frac{\pi}{3}$? 7c. Find cosine of $\frac{\pi}{3}$?

8a. Sketch the angle $\frac{7\pi}{3}$. 8b. What is the ordered pair for $\frac{7\pi}{3}$? 8c. Find cosine of $\frac{7\pi}{3}$?

Notice they have the same cosine. Coterminal angles have the same trigonometric ratios.

Find the exact value (ratio) of each trigonometric function using the Unit Circle as a reference.

1. $\sin 690°$ 2. $\tan \frac{17\pi}{6}$ 3. $\sec\left(-\frac{5\pi}{2}\right)$

4. $\cot(-495°)$ 5. $\cos 7\pi$ 6. $\csc\left(-\frac{8\pi}{3}\right)$