

5. If the terminal side of angle  $\theta$ , in standard position, passes through point  $(-4, 3)$ , what is the numerical value of  $\sin \theta$ ?

- 1)  $\frac{3}{5}$
- 2)  $\frac{4}{5}$
- 3)  $-\frac{3}{5}$
- 4)  $-\frac{4}{5}$

6. A circle centered at the origin has a radius of 10 units. The terminal side of an angle,  $\theta$ , intercepts the circle in Quadrant II at point  $C$ . The  $y$ -coordinate of point  $C$  is 8. What is the value of  $\cos \theta$ ?

- 1)  $-\frac{3}{5}$
- 2)  $-\frac{3}{4}$
- 3)  $\frac{3}{5}$
- 4)  $\frac{4}{5}$

7. A circle centered at the origin has a radius of 4 units. The terminal side of an angle,  $\theta$ , intercepts the circle in Quadrant III at point  $P$ . The  $x$ -coordinate of point  $P$  is 2. What is the value of  $\cos \theta$ ?

8. If the terminal side of an angle is point  $(-\sqrt{11}, 5)$ , what is the secant of this angle?

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Algebra II

## *Pythagorean Identity*

1. Using the identity  $\sin^2 \theta + \cos^2 \theta = 1$ , find the six trigonometric values if  $\sin \theta = .4$  and  $\theta$  is in Quadrant I. Round all values to the nearest hundredth.

a)  $\sin \theta =$                       b)  $\cos \theta =$                       c)  $\tan \theta =$

d)  $\csc \theta =$                       e)  $\sec \theta =$                       f)  $\cot \theta =$

2. Using the identity  $\sin^2 \theta + \cos^2 \theta = 1$ , find the six trigonometric values if  $\cos \theta = -.2$  and  $\theta$  is in Quadrant III. Round all values to the nearest hundredth.

a)  $\sin \theta =$                       b)  $\cos \theta =$                       c)  $\tan \theta =$

d)  $\csc \theta =$                       e)  $\sec \theta =$                       f)  $\cot \theta =$