

Find the remaining 5 Trigonometric values for each given.

1. $\cot \theta = 4$, and θ is in Quadrant II.

2. Find the value of the unique real number θ between 0° and 360° that satisfies the two given conditions.

$$\cos \theta = \frac{\sqrt{3}}{2} \text{ and } \sin \theta < 0.$$

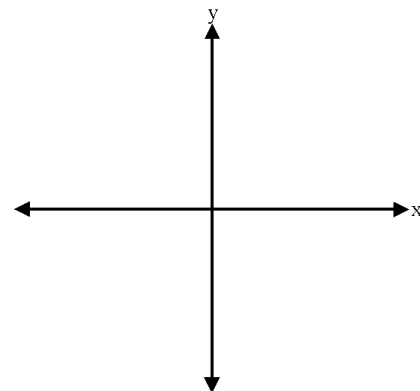
3. If $\cot \theta = \frac{3}{7}$ and $\sec \theta < 0$, find $\sin \theta$ and $\cos \theta$.

4. If $\cot \theta = -\frac{4}{3}$ and $\cos \theta < 0$, find $\sec \theta$ and $\csc \theta$.

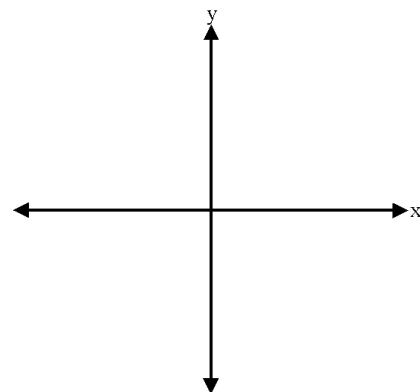
5. For each degree or radian measure:

- Give a picture of the location on the unit circle showing the terminal side.
- List the reference angle in radians and degrees.
- Find the exact value of the six trigonometric functions.

a. 225°



b. $\frac{7\pi}{6}$



6. Convert each degree measure into radians and each radian measure into degrees.

a. 180°

b. $\frac{5\pi}{4}$

c. -60°

d. $\frac{3\pi}{2}$

7. For each of the following, draw a diagram and show the approximate location for **ALL** angles that meet the criterion. Give exact angle measures or radians.

a. $\tan x = \text{und}$

b. $\cos \theta = \frac{1}{2}$

c. $\csc x = \frac{2\sqrt{3}}{3}$

d. $\csc \theta = -\sqrt{2}$

8. Find exact values for each of the following.

a. $\tan \frac{5\pi}{6}$

b. $\cos 330^\circ$

c. $\sec \frac{3\pi}{2}$

d. $\cot 210^\circ$

9. For each of the following equations, ONE solution is given. Find the other solution, x or θ , on the unit circle that satisfies the given equation. $0 \leq x \leq 2\pi$ and $0 \leq \theta \leq 360^\circ$.

a. $\sin \frac{3\pi}{4} = \sin x$

b. $\cos 108^\circ = \cos \theta$

c. $\csc 305^\circ = \csc \theta$

d. $\cot \frac{\pi}{4} = \cot x$

Find the value of the unique angle θ between 0° and 360° that satisfies the two given conditions.

10. $\sin \theta = -\frac{1}{2}$ and $\sec \theta < 0$.

11. $\csc \theta = 2$ and $\csc \theta > 0$.

12. $\tan \theta = -1$ and $\cos \theta > 0$.

Evaluate each expression.

13. $\cot^2 \frac{\pi}{4} \sin \frac{5\pi}{3} \sec \pi$

14. $2 \tan 30^\circ \csc 45^\circ - 4 \cos^2 60^\circ$