

Find the remaining 5 Trigonometric values for each given.

1. $\tan \theta = -\frac{3}{5}$, and $\sec \theta > 0$.

2a. If the $\cos \theta = \frac{2}{3}$ and $\cot \theta > 0$, in which quadrant does θ lie?

2b. Using the answer and information from 2a, find $\sin \theta$ and $\tan \theta$.

Point P is on the terminal side of angle θ . Evaluate the six trigonometric functions for θ .

3. $P(3,4)$

4. $P(5,-2)$

5. I am an angle. Based on the following information, which Quadrant am I in?

- a. My sin is negative and my tangent is negative.
- b. My cot is negative and my cos is positive.
- c. My sec is positive and my sin is positive.
- d. My cos is negative and my tan is negative.

6. 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. $\tan x = 0$

b. $\sin \theta = -\frac{1}{2}$

c. $\cos x = -\frac{\sqrt{2}}{2}$

d. $\csc \theta = 1$

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

f. $\sec x = -2$

7. Find exact values for each of the following.

a. $\csc \frac{\pi}{2}$

b. $\cos 180^\circ$

c. $\csc \frac{5\pi}{4}$

d. $\tan 120^\circ$

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

f. $\cot \frac{11\pi}{6}$

g. $\cot 0^\circ$

h. $\tan 300^\circ$

i. $\sin \frac{7\pi}{4}$

j. $\cos 150^\circ$

Multiple Choice:

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

8. $\sec \theta = \text{und}$ and $\sin \theta < 0$.

- a. 0° b. 45° c. 90° d. 180° e. 270°

9. $\csc \theta = 2$ and $\tan \theta < 0$.

- a. 60° b. 120° c. 150° d. 300° e. 330°

10. $\tan \theta = -\frac{\sqrt{3}}{3}$ and $\sec \theta > 0$.

- a. 120° b. 150° c. 210° d. 240° e. 330°

Multiple Answer:

For each radian or degree measure, choose the trigonometric values that are correct. **Multiple correct answers per question are possible.**

11. $\theta = 225^\circ$

- a. $\sec \theta = -\sqrt{2}$ b. $\csc x = -\sqrt{2}$ c. $\tan x = -1$ d. $\cot x = -1$ e. $\cos x = -\frac{\sqrt{2}}{2}$

12. $x = \frac{5\pi}{3}$

- a. $\sin x = -\frac{\sqrt{3}}{2}$ b. $\cot x = \frac{\sqrt{3}}{3}$ c. $\tan x = \frac{\sqrt{3}}{3}$ d. $\cot x = \sqrt{3}$ e. $\tan x = \sqrt{3}$

13. $x = -\frac{5\pi}{6}$

a. $\sin x = \frac{\sqrt{3}}{2}$

b. $\cos x = -\frac{1}{2}$

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

d. $\tan x = -\frac{\sqrt{3}}{3}$

e. $\tan x = \frac{\sqrt{3}}{3}$

Multiple Answer:

For each of the following, choose the radian or angle measures that are correct. **Multiple correct answers per question are possible.**

14. $\csc \theta = -\frac{2\sqrt{3}}{3}$

a. -210°

b. -120°

c. 240°

d. 300°

e. 330°

15. $\cos x = -\frac{1}{2}$

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

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

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

d. $-\frac{7\pi}{6}$

e. $-\frac{4\pi}{3}$

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

a. -135°

b. -45°

c. 135°

d. 225°

e. 315°