

PreCalculus Review Quiz – Trigonometry of Any Angle

Name _____

The given point lies on the terminal side of an angle θ in standard position. Find the values of all six trigonometric functions.

1. (-7,-4)

$$\sin \theta = \underline{\hspace{2cm}} \qquad \csc \theta = \underline{\hspace{2cm}}$$

$$\cos \theta = \underline{\hspace{2cm}} \qquad \sec \theta = \underline{\hspace{2cm}}$$

$$\tan \theta = \underline{\hspace{2cm}} \qquad \cot \theta = \underline{\hspace{2cm}}$$

Find the reference angle for each of the following angles. (Give degrees in degrees, radians in radians).

2. -384°

3. 907°

4. $\frac{21\pi}{11}$

5. $\frac{-43\pi}{32}$

Find one positive and one negative co-terminal angle for each of the following. (Give degrees in degrees, radians in radians).

6. 395°

7. -683°

8. $\frac{19\pi}{9}$

9. $\frac{-43\pi}{26}$

Find the exact value of each trigonometric function (No decimals accepted).

10. $\sec \frac{15\pi}{6}$

11. $\tan \frac{36\pi}{18}$

12. $\cos(1020^\circ)$

13. $\csc \frac{37\pi}{4}$

14. Find the exact value of all six trigonometric functions given the following:

$$\sec \theta = \sqrt{3} \text{ and } \sin \theta < 0$$

$$\sin \theta = \underline{\hspace{2cm}} \qquad \csc \theta = \underline{\hspace{2cm}}$$

$$\cos \theta = \underline{\hspace{2cm}} \qquad \sec \theta = \underline{\hspace{2cm}}$$

$$\tan \theta = \underline{\hspace{2cm}} \qquad \cot \theta = \underline{\hspace{2cm}}$$

The given point lies on the terminal side of an angle θ in standard position. Find the values of all six trigonometric functions.

1. (5, -7)

$$\sin \theta = \underline{\hspace{2cm}} \qquad \csc \theta = \underline{\hspace{2cm}}$$

$$\cos \theta = \underline{\hspace{2cm}} \qquad \sec \theta = \underline{\hspace{2cm}}$$

$$\tan \theta = \underline{\hspace{2cm}} \qquad \cot \theta = \underline{\hspace{2cm}}$$

Find the reference angle for each of the following angles. (Give degrees in degrees, radians in radians).

2. 175°

3. -490°

4. $\frac{5\pi}{3}$

5. $\frac{-13\pi}{9}$

Find one positive and one negative co-terminal angle for each of the following. (Give degrees in degrees, radians in radians).

6. 175°

7. -490°

8. $\frac{5\pi}{3}$

9. $\frac{-13\pi}{9}$

Find the exact value of each trigonometric function (No decimals accepted).

10. $\sin \frac{5\pi}{3}$

11. $\cos \frac{3\pi}{4}$

12. $\sec(300^\circ)$

13. $\tan \frac{11\pi}{6}$

14. Find the exact value of all six trigonometric functions given the following:

$$\sec \theta = -\frac{5}{4} \text{ and } \tan \theta < 0$$

$$\sin \theta = \underline{\hspace{2cm}} \qquad \csc \theta = \underline{\hspace{2cm}}$$

$$\cos \theta = \underline{\hspace{2cm}} \qquad \sec \theta = \underline{\hspace{2cm}}$$

$$\tan \theta = \underline{\hspace{2cm}} \qquad \cot \theta = \underline{\hspace{2cm}}$$