

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

1. $(-6, -2)$

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

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

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

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

2. 215°

3. -785°

4. $\frac{12\pi}{5}$

5. $\frac{-7\pi}{9}$

Find the exact value of each trigonometric function.

6. $\csc \frac{11\pi}{3}$

7. $\cot 2\pi$

8. $\tan(-1470^\circ)$

9. $\cos \frac{17\pi}{6}$

Find a positive and a negative angle co-terminal with the given angle. (Give degrees in degrees and radians in exact radians.)

10. -187°

11. 852°

12. $\frac{13\pi}{22}$

13. $\frac{-17\pi}{4}$

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

$\sin \theta = \frac{-1}{5}$ and $\cos \theta < 0$

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

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

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