

Trigonometric Values Given A Point

$$x^2 + y^2 = r^2 \rightarrow r = \sqrt{(\quad)^2 + (\quad)^2}$$

$$\sin \theta = \frac{y}{r} \quad \cos \theta = \frac{x}{r} \quad \tan \theta = \frac{y}{x} \quad \csc \theta = \frac{r}{y} \quad \sec \theta = \frac{r}{x} \quad \cot \theta = \frac{x}{y}$$

Find the exact values (no decimals) of the six trigonometric functions of an angle Θ in standard position whose terminal side contains the given point.

1. (4, -3) $r = \sqrt{(\quad)^2 + (\quad)^2}$ $\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$ $\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$ $\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$	2. (-12, 5) $r = \sqrt{(\quad)^2 + (\quad)^2}$ $\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$ $\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$ $\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$
3. (-5, -7) $r = \sqrt{(\quad)^2 + (\quad)^2}$ $\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$ $\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$ $\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$	4. (2, 3) $r = \sqrt{(\quad)^2 + (\quad)^2}$ $\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$ $\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$ $\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$
5. (15, 8) $r = \sqrt{(\quad)^2 + (\quad)^2}$ $\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$ $\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$ $\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$	6. (5, 2) $r = \sqrt{(\quad)^2 + (\quad)^2}$ $\sin \theta = \underline{\hspace{2cm}}$ $\csc \theta = \underline{\hspace{2cm}}$ $\cos \theta = \underline{\hspace{2cm}}$ $\sec \theta = \underline{\hspace{2cm}}$ $\tan \theta = \underline{\hspace{2cm}}$ $\cot \theta = \underline{\hspace{2cm}}$

