

Six Trigonometric Ratios

Use the given point on the terminal side of an angle θ in standard position to find the exact values of six trigonometric ratios.

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

1) (12, -20)

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

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

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2) (-6, -8)

3) (-24, 7)

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

4) (5, 12)

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

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

Six Trigonometric Ratios

Use the given point on the terminal side of an angle θ in standard position to find the exact values of six trigonometric ratios.

$$\sin \theta = \frac{-\frac{5\sqrt{34}}{34}}{\quad\quad\quad} \qquad \operatorname{cosec} \theta = \frac{-\frac{\sqrt{34}}{5}}{\quad\quad\quad}$$

1) (12, -20) $\cos \theta = \frac{\frac{3\sqrt{34}}{34}}{\quad\quad\quad} \qquad \sec \theta = \frac{\frac{\sqrt{34}}{3}}{\quad\quad\quad}$

$$\tan \theta = \frac{-\frac{5}{3}}{\quad\quad\quad} \qquad \cot \theta = \frac{-\frac{3}{5}}{\quad\quad\quad}$$

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$$\frac{-\frac{5}{4}}{\quad\quad\quad}$$

$$\frac{-\frac{5}{3}}{\quad\quad\quad}$$

$$\frac{\frac{3}{4}}{\quad\quad\quad}$$

$$\frac{\frac{25}{7}}{\quad\quad\quad}$$

$$\frac{-\frac{25}{24}}{\quad\quad\quad}$$

$$\frac{-\frac{24}{7}}{\quad\quad\quad}$$

$$\sin \theta = \frac{\frac{12}{13}}{\quad\quad\quad} \qquad \operatorname{cosec} \theta = \frac{\frac{13}{12}}{\quad\quad\quad}$$

4) (5, 12) $\cos \theta = \frac{\frac{5}{13}}{\quad\quad\quad} \qquad \sec \theta = \frac{\frac{13}{5}}{\quad\quad\quad}$

$$\tan \theta = \frac{\frac{12}{5}}{\quad\quad\quad} \qquad \cot \theta = \frac{\frac{5}{12}}{\quad\quad\quad}$$