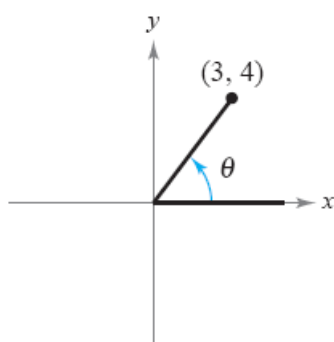


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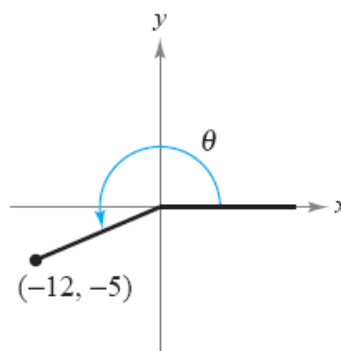
Trigonometry Functions of Any Angle

1) Determine all six trigonometric functions for the angle θ

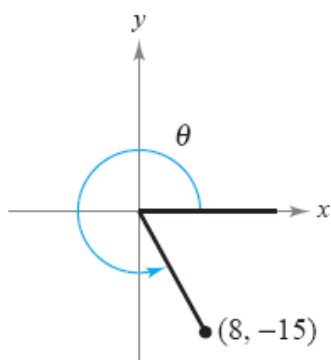
1)



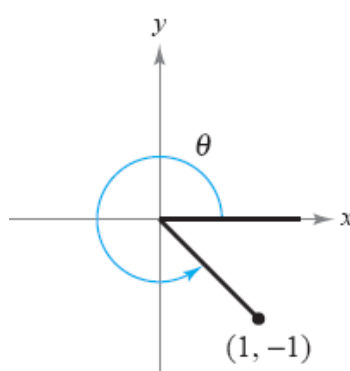
2)



3)



4)



2) Evaluate:

1) $\frac{\tan 65^\circ}{\cot 25^\circ}$

2) $\frac{\sin 18^\circ}{\cos 72^\circ}$

3) $\frac{\tan 26^\circ}{\cot 64^\circ}$

4) $\cos 48^\circ - \sin 42^\circ$

5) $\csc 31^\circ - \sec 59^\circ$

3) Evaluate the following:

1) $\sin 60^\circ \cos 30^\circ + \sin 30^\circ \cos 60^\circ$

2) $2 \tan^2 45^\circ + \cos^2 30^\circ - \sin^2 60^\circ$

3) $\frac{\cos 45^\circ}{\sec 30^\circ + \csc 30^\circ}$

4) $\frac{\sin 30^\circ + \tan 45^\circ - \csc 60^\circ}{\sec 30^\circ + \cos 60^\circ + \cot 45^\circ}$

5) $\frac{5 \cos^2 60^\circ + 4 \sec^2 30^\circ - \tan^2 45^\circ}{\sin^2 30^\circ + \cos^2 30^\circ}$

6) $\frac{2 \tan^2 30^\circ}{1 + \tan^2 30^\circ}$

7) $\frac{1 - \tan^2 45^\circ}{1 + \tan^2 45^\circ}$

4) If $\sin x = 2/3$. Find all trigonometric functions

5) If $\sec \theta = \frac{5}{4}$ find the remaining trigonometric functions.

6) Evaluate: $[(\sin 60^\circ + \cos 30^\circ)^2 - (\cos 60^\circ + \sin 30^\circ)^2]^3$

7) Find the value of θ if:

$$\sin (2\theta + 10^\circ) = \cos (\theta + 20^\circ)$$