

Cofunctions

Fill in the table below with the exact values of the appropriate trig ratios in simplest radical form.

θ	0°	30°	45°	60°	90°
$\sin \theta$					
$\cos \theta$					
$\tan \theta$					
$\csc \theta$					
$\sec \theta$					
$\cot \theta$					

Cofunction Rules

$$\sin \theta =$$

$$\cos \theta =$$

$$\sec \theta =$$

$$\csc \theta =$$

$$\tan \theta =$$

$$\cot \theta =$$

Examples:

1. If $\sin \theta = \cos 10^\circ$, find a possible value for θ .

2. If $\sec x = \csc(x + 20^\circ)$, and x and $(x + 20^\circ)$ are the measure of two acute angles, find x .

3. Write each expression as the function of an acute angle whose measure is less than 45° .
 - a. $\cos 85^\circ$

 - b. $\cot 65^\circ$

 - c. $\csc 89^\circ$

4. Write each expression as the function of an acute angle whose measure is less than 45° .
 - a. $\sin 285^\circ$

 - b. $\cos 120^\circ$

 - c. $\sec 950^\circ$