

Trig on the Calculator

Things to Know	Examples
degree mode / radian mode	$\sin 214^\circ = -.559$ $\cos 2\pi = 1$
degrees minutes seconds (D°M'S'')	$\cos 56^\circ 15' = .556$ $\tan 45^\circ 12' 56'' = 1.008$
RECIPROCAL functions * use for csc, sec, cot	$\text{Degrees } \csc 35^\circ = \frac{1}{\sin 35} = 1.743$ $\text{Radians } \sec 2.7 = \frac{1}{\cos 2.7} = -1.106$
INVERSE functions * use to find an angle	$\sin \theta = 0.3329$ $\theta = \sin^{-1}(0.3329)$ $\theta = 19.44^\circ$

* \sin^{-1} is not cosecant. Inverse is not the same as reciprocal.

Find each of the following:

(Round 4 decimal places.)

Set calc. to

Radians 1. $\tan\left(-\frac{\pi}{3}\right) = -1.732$

Degrees 2. $\cos(52^\circ 35' 25'') = .6075$

Radians 3. $\cot(3.5) = \frac{1}{\tan 3.5} = 2.6696$

Reciprocal

Find the measure of the angle in degrees.

Write your answer in two ways: Rounded to the hundredth AND to the nearest minute.

* Use Inverse functions

4. $\sin \theta = .6679$

$$\theta = \sin^{-1}(.6679)$$

$$\theta = 41.91 \quad (.91 \times 60)$$

$$\theta = 41^{\circ} 54'$$

* Use inverse and reciprocal

5. $\csc \theta = 1.1679$

$$\sin \theta = \frac{1}{1.1679}$$

$$\theta = \sin^{-1}\left(\frac{1}{1.1679}\right)$$

$$\theta = 58.9$$

$$\theta = 58^{\circ} 53'$$