

6 Use a Calculator to Approximate the Value of a Trigonometric Function

Your calculator has buttons for sin, cos, and tan so to find values of the remaining 3 trigonometric functions we use:

$$\sec \theta = \frac{1}{x} = \frac{1}{\cos \theta}$$

$$\csc \theta = \frac{1}{y} = \frac{1}{\sin \theta}$$

$$\cot \theta = \frac{x}{y} = \frac{1}{\frac{y}{x}} = \frac{1}{\tan \theta}$$

EXAMPLE

Using a Calculator to Approximate the Value of a Trigonometric Function

Use a calculator to find the approximate value of:

- (a) $\cos 48^\circ$ (b) $\csc 21^\circ$ (c) $\tan \frac{\pi}{12}$

Express your answers rounded to two decimal places.

```
cos(48)
.6691306064
```

```
1/sin(21)
2.79042811
```

```
tan(pi/12)
.2679491924
```

**CHANGE MODE
TO RADIANS**