

# RIGHT TRIANGLE TRIGONOMETRY IN CALCULATOR

Section 4.3A

Precalculus PreAP/Dual, Revised ©2017

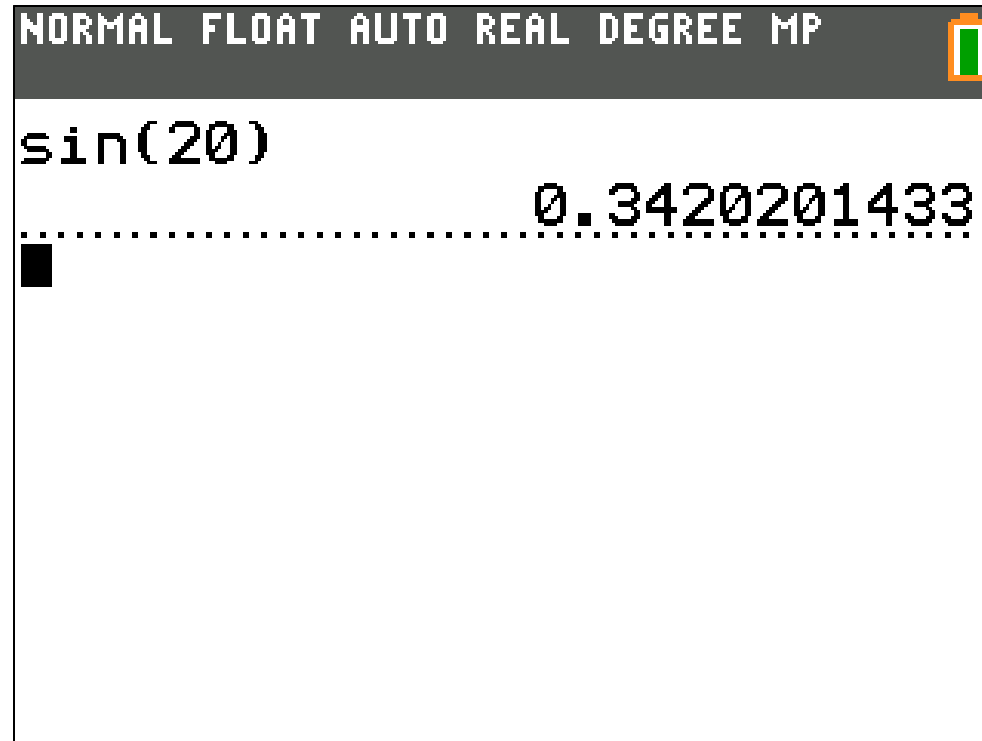
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# PLUGGING INTO THE TI-84 GRAPHING CALCULATOR

- A. Make sure the calculator remains in degree or radian mode
- B. To determine the reciprocal function, press [2<sup>nd</sup>] Trig function
- C. Round answers to four decimal places

# EXAMPLE 1

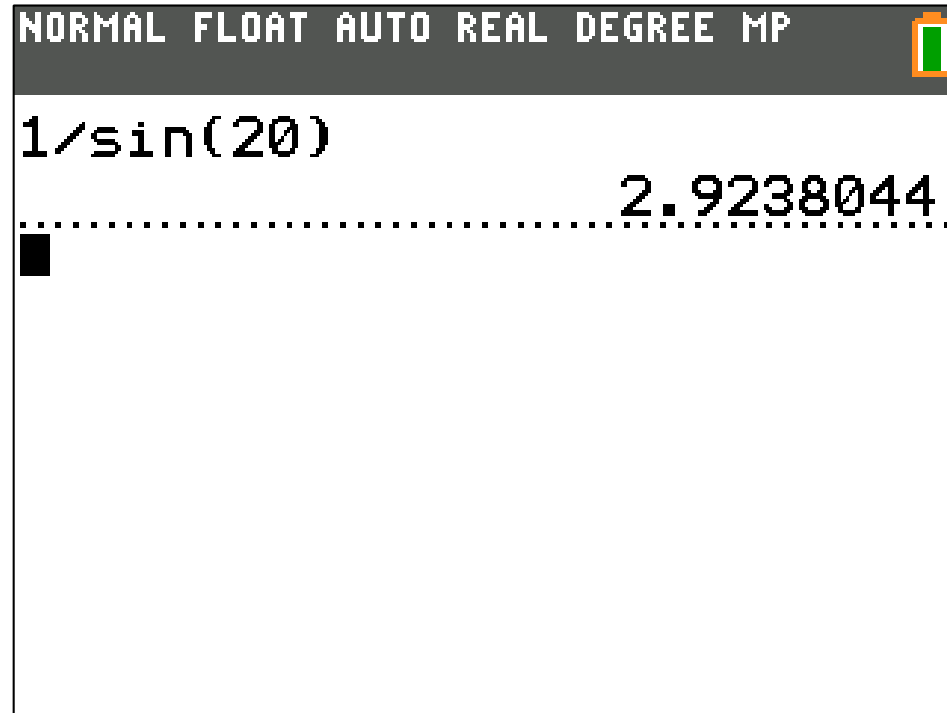
Use a calculator to determine  $\sin 20^\circ$  and round to 4 decimal places



$$\approx 0.3420$$

# EXAMPLE 2

Use a calculator to determine  $\csc 20^\circ$  and round to 4 decimal places.



$$\approx 2.9238$$

# YOUR TURN

Use a calculator to determine  $\sec 20^\circ$  and round to 4 decimal places.

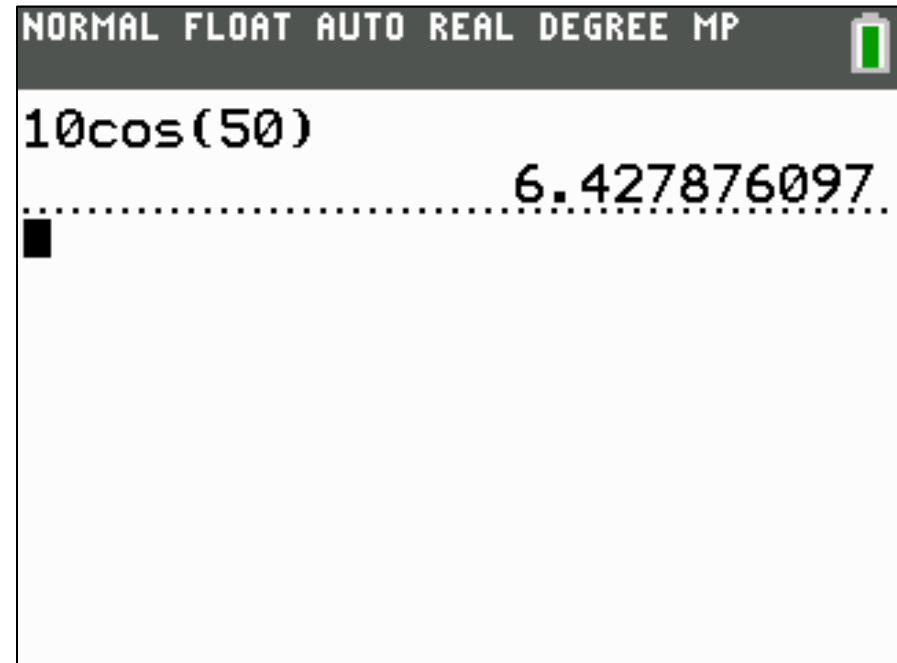
$$\approx 1.0642$$

## EXAMPLE 3

Solve the equation,  $\cos 50^\circ = \frac{x}{10}$  and round to 4 decimal places

$$\cos 50^\circ = \frac{x}{10}$$

$$10 \cos 50^\circ = x$$



$$x \approx 6.4279$$

## EXAMPLE 4

Solve the equation,  $\sin 48^\circ = \frac{12}{x}$  and round to 4 decimal places

$$\sin 48^\circ = \frac{12}{x}$$

$$x \sin 48^\circ = 12$$

$$x = \frac{12}{\sin 48^\circ}$$

$$x \approx 16.1475$$

# YOUR TURN

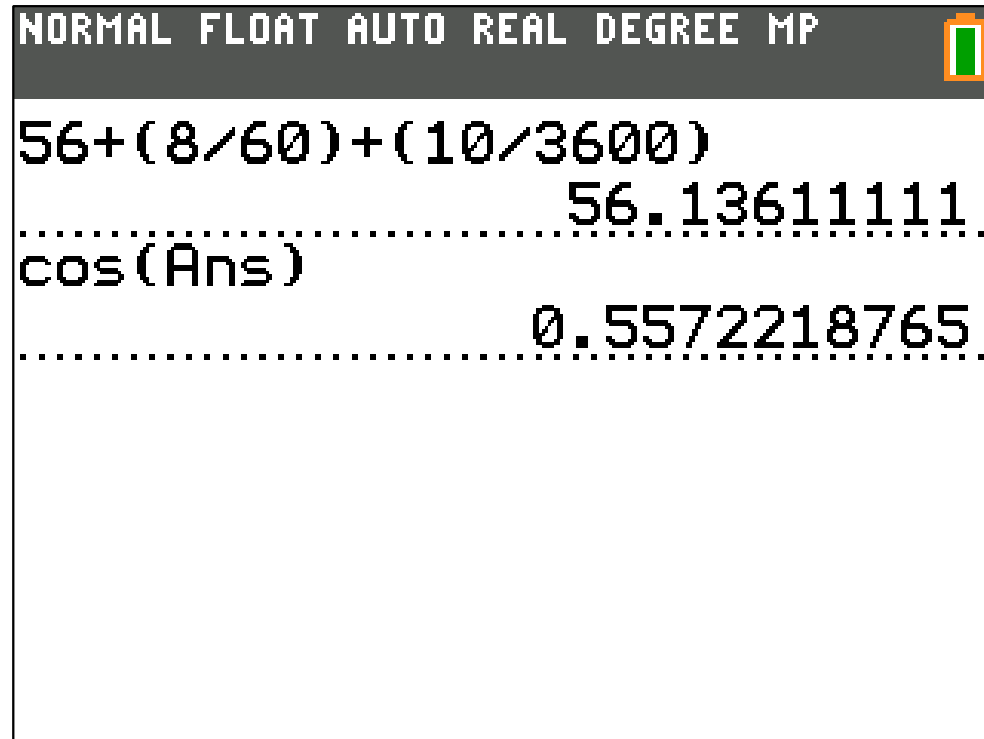
Solve the equation,  $\tan 48^\circ = \frac{12}{x}$  and round to 4 decimal places

$$x \approx 10.8048$$



# EXAMPLE 5

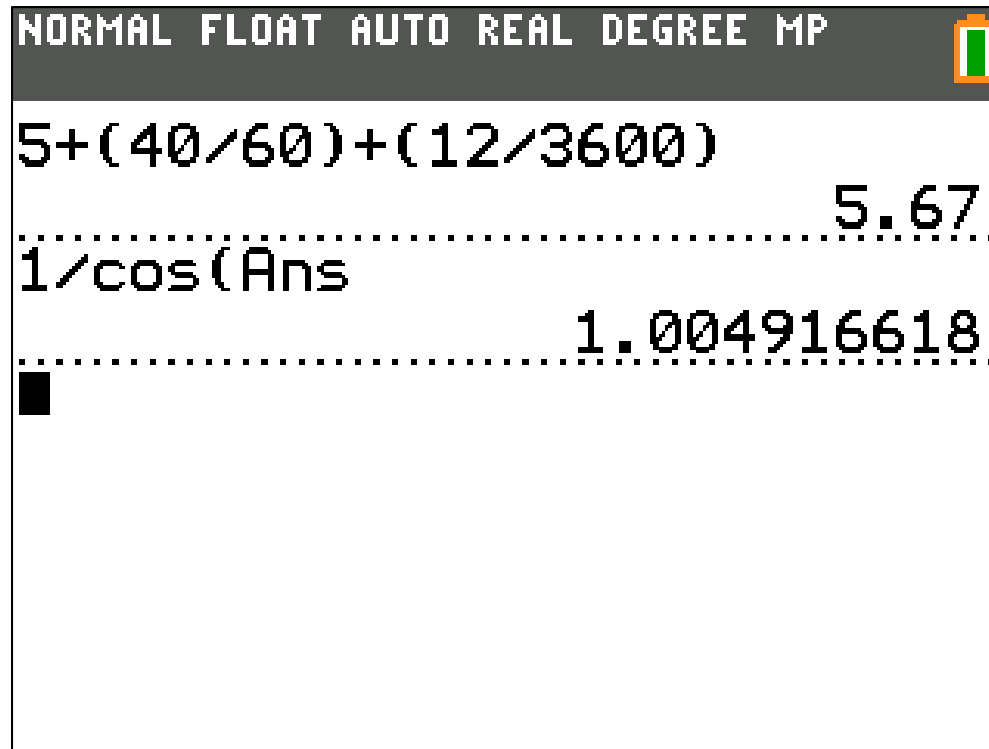
Use a calculator to determine  $\cos 56^\circ 8' 10''$  and round to 4 decimal places



$\approx 0.5572$

# EXAMPLE 6

Use a calculator to determine  $\sec 5^\circ 40' 12''$  and round to 4 decimal places



$$\approx 1.0049$$

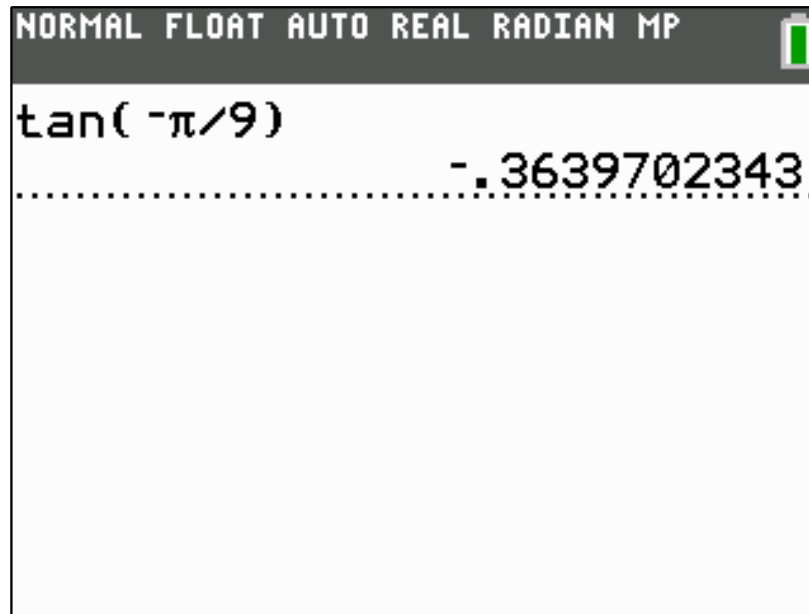
# YOUR TURN

Use a calculator to determine  $\csc(-33^\circ 45')$  and round to 4 decimal places

$$\approx -1.7999$$

# EXAMPLE 7

Use a calculator to determine  $\tan\left(-\frac{\pi}{9}\right)$  and round to 4 decimal places



$$\approx -0.3640$$

# YOUR TURN

Use a calculator to determine  $\sec(-4.8)$  and round to 4 decimal places

$\approx 11.4287$

# ASSIGNMENT

**Page 287: 31-39 odd**

**Page 297: 75-89 odd**