

5-2 Trig Functions

Objectives:

- I can find the trigonometric functions of acute angles.
- I can identify reciprocal functions

Trig Functions

$$\sin A = \frac{\text{opp.}}{\text{hyp.}} = \longleftrightarrow \text{csc } A = \frac{\text{hyp.}}{\text{opp.}} =$$

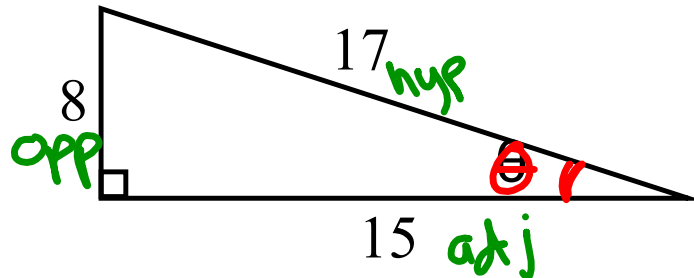
angle *cosecant*

$$\cos A = \frac{\text{adj.}}{\text{hyp.}} = \longleftrightarrow \text{sec } A = \frac{\text{hyp.}}{\text{adj.}} =$$

secant

$$\tan A = \frac{\text{opp.}}{\text{adj.}} = \longleftrightarrow \text{cot } A = \frac{\text{adj.}}{\text{opp.}} =$$

cotangent

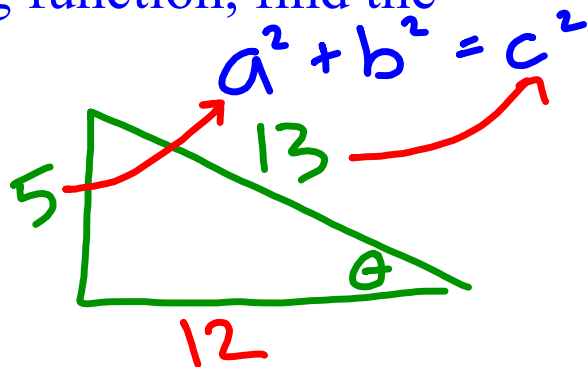


Find all six trig ratios for the given triangle:

$$\sin \theta = \frac{8}{17} \quad \csc \theta = \frac{17}{8}$$

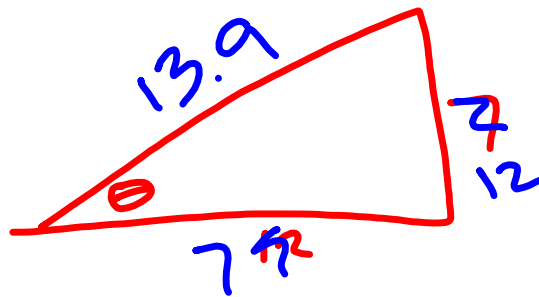
Given the following trig function, find the remaining 5 functions:

$$\csc \theta = \frac{13 \rightarrow \text{hyp}}{5 \rightarrow \text{opp}}$$



Given the following trig function, find the remaining 5 functions:

$$\cot \theta = \frac{7}{12}$$



Using your calculator, find:

$$\tan 8^\circ = \underline{0.14} = \frac{\text{opp}}{\text{adj}}$$

$$\cot \frac{\pi}{12} =$$

$$\frac{1}{\tan\left(\frac{\pi}{12}\right)}$$

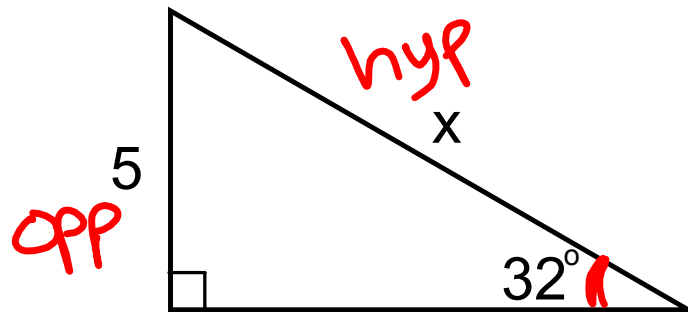
$$\cos 18.15^\circ =$$

$$\tan 5.25 = -1.7$$

$$\sec \frac{\pi}{6} =$$

$$\frac{1}{\cos}$$

Solve for x



$$\sin(32^\circ) = \frac{5}{x}$$

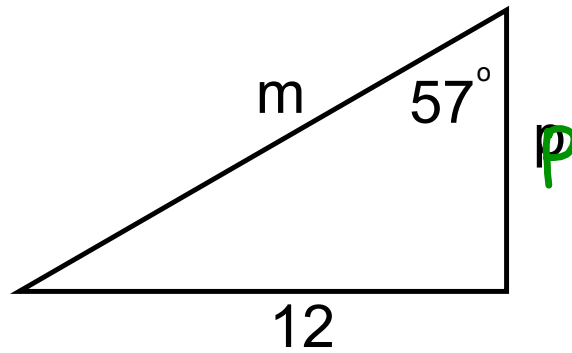
$$x \cdot 0.52 = \frac{5}{x} \cdot x$$

$$\frac{x \cdot 0.52}{0.52} = \frac{5}{0.52}$$

$$x = \underline{\underline{9.6}}$$

Solve for p

$$\tan(57) = \frac{12}{p}$$



Standing 15 from a tree you must look up at 48° to see the top of the tree. How tall is the tree?

