

Solving Trigonometric Functions

Here's what we know:

$\sin A = \frac{\textit{opposite}}{\textit{hypotenuse}}$	$\cos A = \frac{\textit{adjacent}}{\textit{hypotenuse}}$	$\tan A = \frac{\textit{opposite}}{\textit{adjacent}}$
and		
$\cot A = \frac{1}{\tan A}$	$\sec A = \frac{1}{\cos A}$	$\csc A = \frac{1}{\sin A}$

A. Use the terms opposite, adjacent, and hypotenuse to define the following.

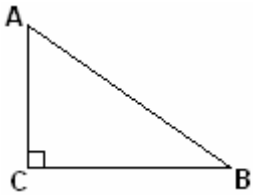
$$\cot A = \text{_____}$$

$$\sec A = \text{_____}$$

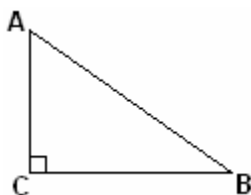
$$\csc A = \text{_____}$$

B. Label the triangles with the side lengths or angle measures you are given in the problem by using the definitions from part A. Then solve for the variable using the definitions of sine, cosine, and tangent.

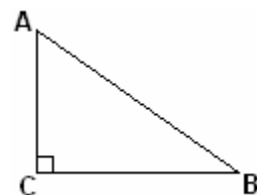
1. $\sec A = 5.2$



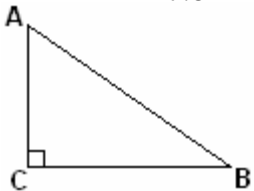
2. $\cot B = 0.35$



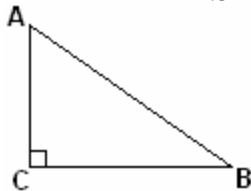
3. $\csc B = 2.67$



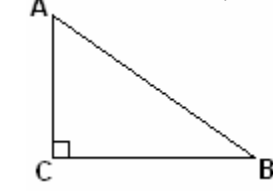
4. $\csc 56^\circ = \frac{x}{7.8}$



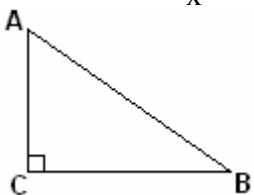
5. $\sec 28^\circ = \frac{x}{11.3}$



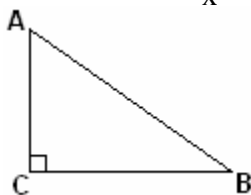
6. $\cot 63^\circ = \frac{x}{2.1}$



7. $\sec 32^\circ = \frac{21.9}{x}$



8. $\csc 15^\circ = \frac{13.9}{x}$



9. $\cot 81^\circ = \frac{4.2}{x}$

