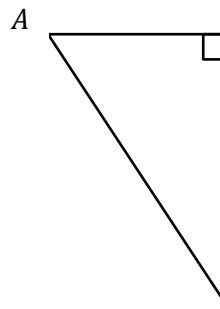
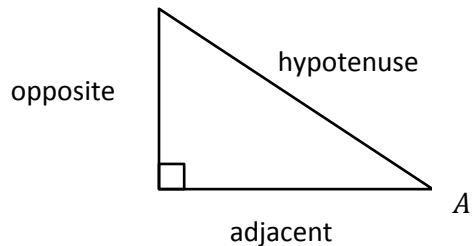


Trigonometric Functions

sine	$\sin A = \frac{\textit{opposite}}{\textit{hypotenuse}}$
cosine	$\cos A = \frac{\textit{adjacent}}{\textit{hypotenuse}}$
tangent	$\tan A = \frac{\textit{opposite}}{\textit{adjacent}}$

SOH – CAH – TOA



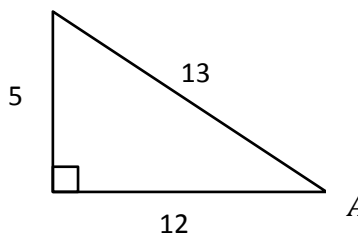
Using the Trigonometric Functions

Find each of the following:

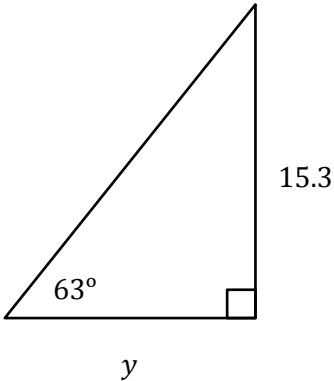
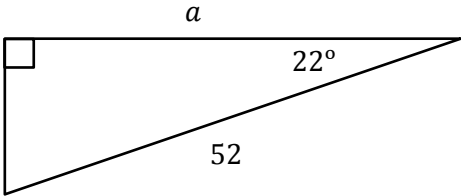
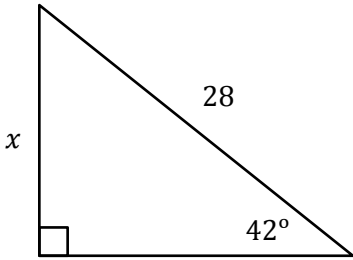
$\sin A =$

$\cos A =$

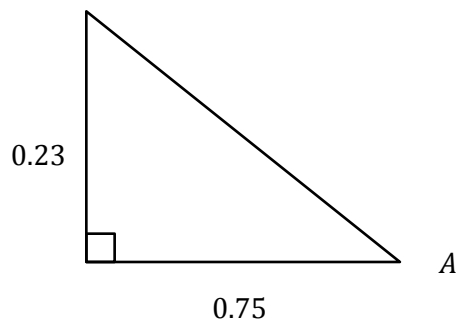
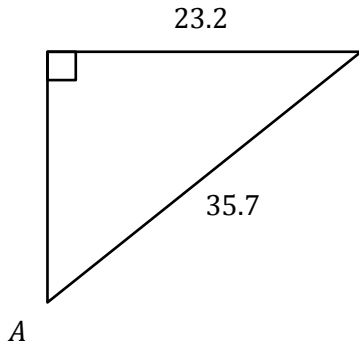
$\tan A =$



Finding the missing *side* of a triangle using trigonometric functions



Finding the missing *angle* of a triangle using trigonometric functions



Applications

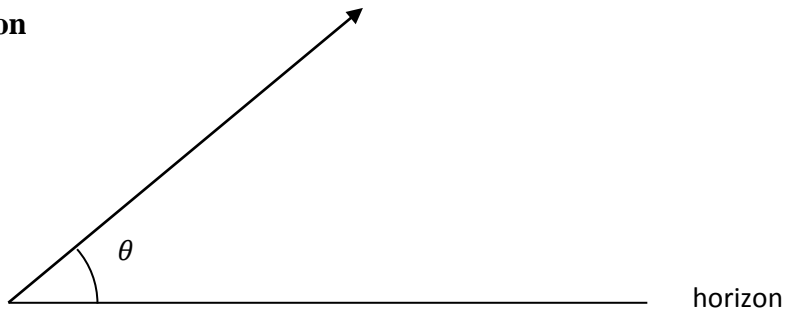
A 12-ft ladder leans against a wall.

The angle the ladder forms with the floor is 77° .

How far up the wall does the ladder reach?

1. draw a picture of the situation
2. find the right triangle
3. solve the triangle for the missing part

Angle of Elevation



Example: A tree cast a 53-ft shadow when the angle of elevation of the sun is 62° . Find the height of the tree.

Two Triangles

