# Algebra 2 Right Triangle Trigonometry Name:

**Trigonometric Functions**

sine

opposite

osite

hypotenuse

cosine

adjacent

tangent

SOH – CAH – TOA

**Using the Trigonometric Functions**

Find each of the following:

12

13

5

osite

**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 .*

*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**

horizon

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

**Two Triangles**