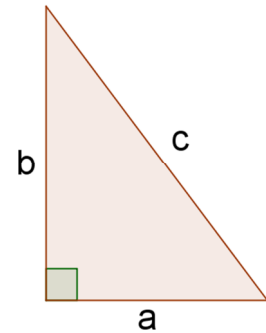


Solving Equations and Problem Solving

The _____ says that for right triangles:

$$a^2 + b^2 = c^2$$

(where a and b are the lengths of the _____, and c is the length of the _____)

**Ex 1.**

A wire is attached 21 feet up a telephone pole and then attached to a stake 20 feet out from the base of the pole. What length of wire will be needed between the pole and the stake?

Ex 2.

A 30-ft ladder is leaning against the side of a building. If the base of the ladder is placed 5 feet from the base of the building, how high up the side of the building will the ladder reach?