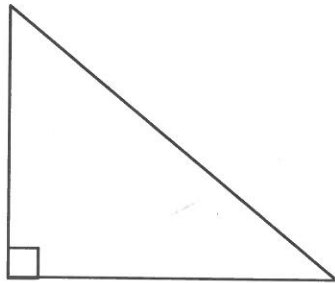


## Lesson Two: The Pythagorean Theorem

### Goals:

- Calculate the measurement of the third side of a right triangle, using the Pythagorean Theorem.

A right triangle is an angle that has a measure of  $90^\circ$ , which means that two of its sides are **perpendicular** to each other. If a triangle has one right angle, it is called a right triangle. A small box is placed where the two perpendicular sides meet. This box means that the angle created by the two perpendicular sides is  $90^\circ$ . A  $90^\circ$  is also referred to as a right angle. Triangles with a  $90^\circ$  angle are called 'right angle triangles'.



Why is it impossible to have more than one right angle in a triangle?

Because you will have a triangle with 2 angles equal  $180^\circ$ .  
(A triangle has 3 angles, so you will end up with no angles.)

In a right triangle, special vocabulary is used. The longest side, found across from the  $90^\circ$  angle, is called the **hypotenuse**. The two shorter sides that meet at the  $90^\circ$  angle are called the **legs** or **sides**.

Hypotenuse is the side that is opposite the  $90^\circ$  angle.

Label the hypotenuse on the triangles below.

