

## RIGHT TRIANGLE SIDES RELATION

## Why

How does constraining a triangle to be a right angle constrain the lengths of its sides?

## Result

**Proposition 1.** Let a and b be the lengths of the sides of a right triangle and c be the length of the hypotenuse. Then

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

The result is called  $Pythagorean\ theorem$  and the equation is called the  $Pythagorean\ equation$ .

