## **Pythagorean Theorem**

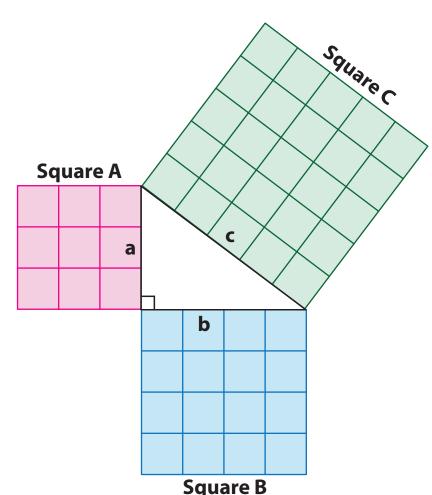
In a right triangle, the square of the length of the hypotenuse is equal to the sum of the squares of the lengths of the legs.

The geometrical interpretation of the Pythagorean theorem is that the area of a square with the hypotenuse as its side equals the sum of the areas of the squares with the legs as their sides.

Area of square  $A = a^2$ 

Area of square  $B = b^2$ 

Area of square  $C = c^2$ 



Area of square C = Area of square A + Area of square B

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