The Pythagorean theorem

The Pythagorean theorem states that in a right triangle, the square of the hypotenuse equals the sum of the squares of the other two sides, written as $a^2 + b^2 = c^2$. It's used to calculate an unknown side length whenever the other two sides of a right triangle are known. The theorem is named after the ancient Greek mathematician Pythagoras, though the relationship was known to earlier civilizations.