

# Pythagorean Theorem

**Sources:** [NCERT Grade 9] | **Topics:** [Right Triangles, Theorems]

The Pythagorean Theorem states that in a right triangle, the square of the hypotenuse equals the sum of squares of the other two sides.

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

Where:

- a and b are the lengths of the legs
- c is the length of the hypotenuse

Example: If  $a = 3$  and  $b = 4$ , then  $c^2 = 9 + 16 = 25$ , so  $c = 5$ .