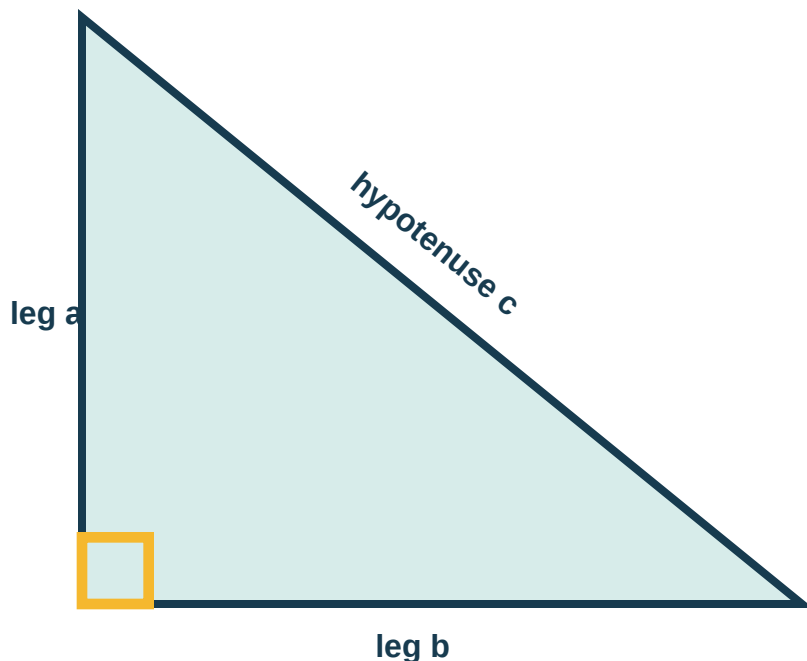


Pythagorean Theorem

Use $a^2 + b^2 = c^2$ only with right triangles.

Know the Parts



The small square marks the 90-degree angle. The side across from it is the hypotenuse. The hypotenuse is always c and is always the longest side.

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

Find the Hypotenuse: $a = 3$, $b = 4$

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

2. Substitute $3^2 + 4^2 = c^2$

3. Square $9 + 16 = 25$

4. Square root $c = \text{square root of } 25 = 5$

Find a Missing Leg: $c = 10$, $b = 6$

Start $a^2 + 36 = 100$

Subtract $a^2 = 100 - 36$

Simplify $a^2 = 64$

Square root $a = 8$

Before You Calculate

1. Confirm there is a right angle. 2. Find the hypotenuse and label it c . 3. Decide whether you are finding c (add) or a leg (subtract). 4. Take the square root at the end.