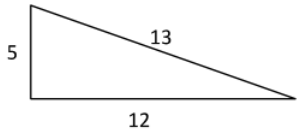
Converse

Solve to see if it's a right triangle

Example 1

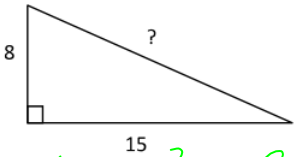


$a = 5$
$b = 12$
$c = 13$

$5^2 + 12^2 = 13^2$
$25 + 144 = 169$
$169 = 169$ ✓

Solve for the length of the hypotenuse

Example 3

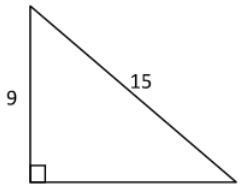


$a = 8$
$b = 15$
$c = ?$

$8^2 + 15^2 = c^2$
$64 + 225 = c^2$
$\sqrt{289} = \sqrt{c^2}$
$c = 17$

Solve for the length of leg

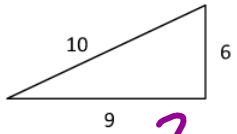
Example 5



$c = 15$
$b = 9$
$a = ?$

$a^2 + 9^2 = 15^2$
$a^2 + 81 = 225$
$-81 \quad -81$
$\sqrt{a^2} = \sqrt{144}$
$a = 12$

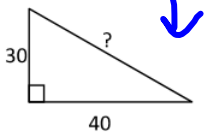
Example 2



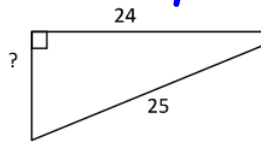
$c = 10$
$b = 9$
$a = 6$

$6^2 + 9^2 = 10^2$
$36 + 81 = 100$
$117 \neq 100$
X

Example 4 — You do



Example 6 — You do



Vocabulary

Right Angle

two lines that form 90°

Leg

the two sides that form the 90°

Hypotenuse

The side not-adjacent to the Right angle.

Square Root

$\sqrt{\#} = X \cdot X$

Glue Here in your notebook

Pythagorea Theorem