

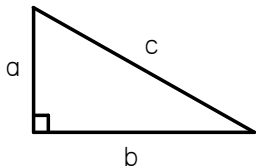
Pythagorean's Instruction

6-20-09Pythagoreans Instructions

Pythagorean's Theorem can be used when you
-Have the lengths of two sides of a triangle and
-Want the third sides length.

Pythagorean's Theorem:

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

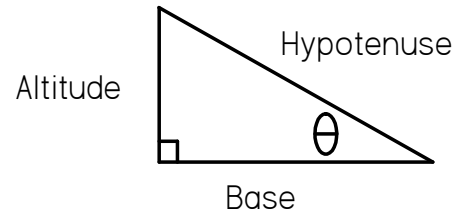


Typical forms used:

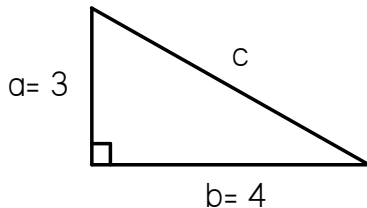
$$c = \sqrt{a^2 + b^2}$$

$$a = \sqrt{c^2 - b^2}$$

$$b = \sqrt{c^2 - a^2}$$



Example 1:



The Formula

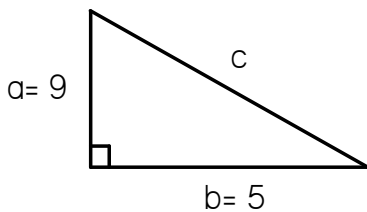
$$c = \sqrt{3^2 + 4^2}$$

On a Calculator Press

$$\boxed{3} \boxed{x^2} \boxed{+} \boxed{4} \boxed{x^2} \boxed{=} \boxed{\sqrt{\quad}}$$

$$c = 5$$

Example 2:



The Formula

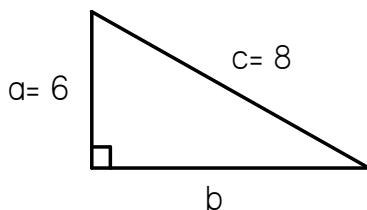
$$c = \sqrt{9^2 + 5^2}$$

On a Calculator Press

$$\boxed{9} \boxed{x^2} \boxed{+} \boxed{5} \boxed{x^2} \boxed{=} \boxed{\sqrt{\quad}}$$

$$c = 10.2956$$

Example 3:



The Formula

$$b = \sqrt{8^2 - 6^2}$$

On a Calculator Press

$$\boxed{8} \boxed{x^2} \boxed{-} \boxed{6} \boxed{x^2} \boxed{=} \boxed{\sqrt{\quad}}$$

$$c = 5.2915$$