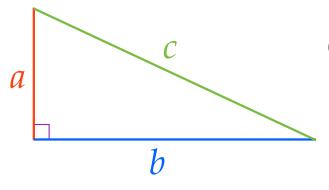
Pythagorean Theorem

In a right triangle, the sum of the squares of the legs is equal to the square of the hypotenuse.



$$(leg)^2 + (leg)^2 = (hypotenuse)^2$$

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

Pythagorean Triple

A set of whole numbers, *a*, *b*, and *c*, such that...

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

3, 4, and 5 form a Pythagorean Triple

5, 12, and 13 form a Pythagorean Triple

Pythagorean Triple

A set of whole numbers, *a*, *b*, and *c*, such that...

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

Do the following whole numbers form a pythagorean triple?

4, **5**, and 6

6, 8, and 10

17, 8, and 15

Pythagorean Triple

A set of whole numbers, *a*, *b*, and *c*, such that...

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

Given two whole numbers, determine the third whole number to create a pythagorean triple.

9 and 15

Pythagorean Triple

A set of whole numbers, *a*, *b*, and *c*, such that...

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

Given two whole numbers, determine the third whole number to create a pythagorean triple.

20 and 21

Pythagorean Triple

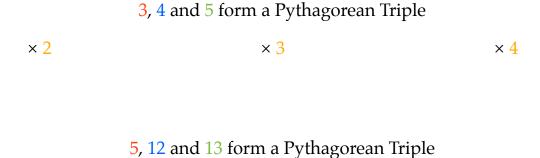
A set of whole numbers, *a*, *b*, and *c*, such that...

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

Given two whole numbers, determine the third whole number to create a pythagorean triple.

12 and 37

Given *a*, *b*, and *c* form a Pythagorean Triple, any whole number multiple of *a*, *b*, and *c* will also form a Pythagorean Triple.



 $\times 3$

 $\times 2$

Pythagorean Triple
A set of whole numbers,
$$a$$
, b , and c , such that...
$$a^2 + b^2 = c^2$$

Given *a*, *b*, and *c* form a Pythagorean Triple, any whole number multiple of *a*, *b*, and *c* will also form a Pythagorean Triple.

 $\times 4$