Pythagorean Theorem

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

hypotenuse

legs

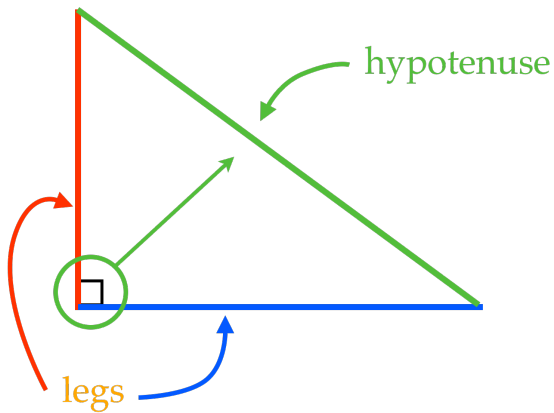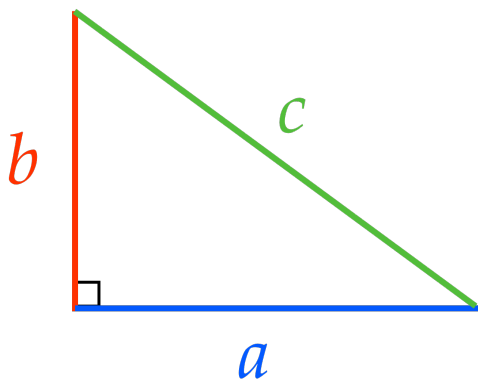$$(\text{leg})^2 + (\text{leg})^2 = (\text{hypotenuse})^2$$

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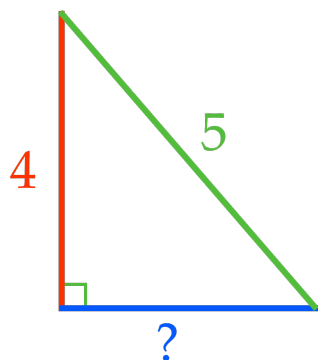is equal to the square of the hypotenuse.

b

c

a

$$(\text{leg})^2 + (\text{leg})^2 = (\text{hypotenuse})^2$$

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

In a right triangle, the sum of the squares of the legs
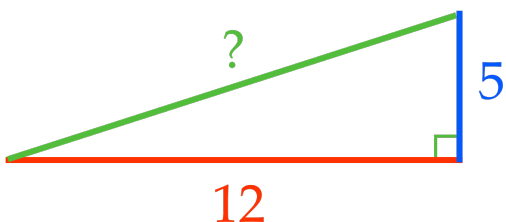is equal to the square of the hypotenuse.
$$a^2 + b^2 = c^2$$

Find the length of the missing side.

4

5

?

In a right triangle, the sum of the squares of the legs
is equal to the square of the hypotenuse.
$$a^2 + b^2 = c^2$$
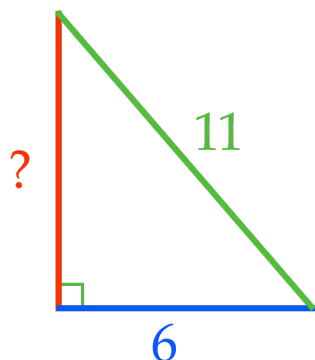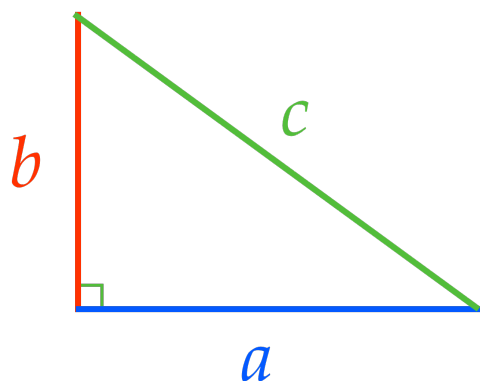
Find the length of the missing side.

?

5

12

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

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

Find the length of the missing side.

?
11
6

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

b
c
a

$$(\text{leg})^2 + (\text{leg})^2 = (\text{hypotenuse})^2$$

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