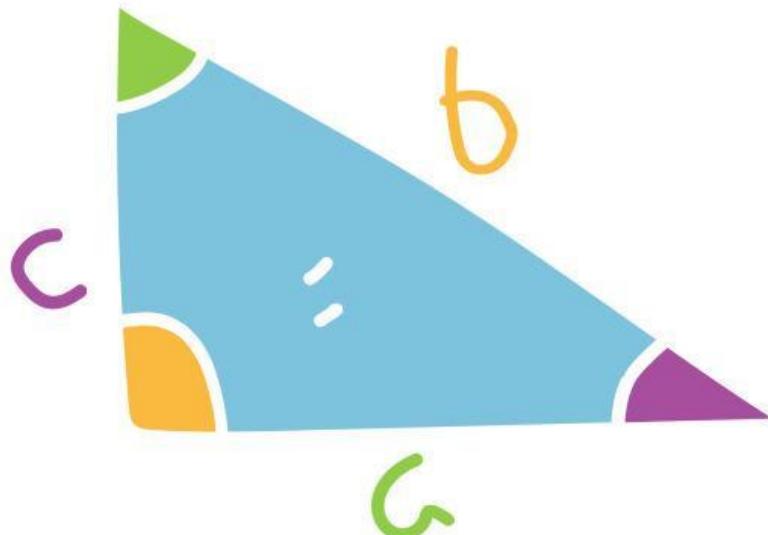


math Pocket

Pythagorean Theorem



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Let's get to know Pythagoras!



Pythagoras was born in 569 in Samos Island, Greece.

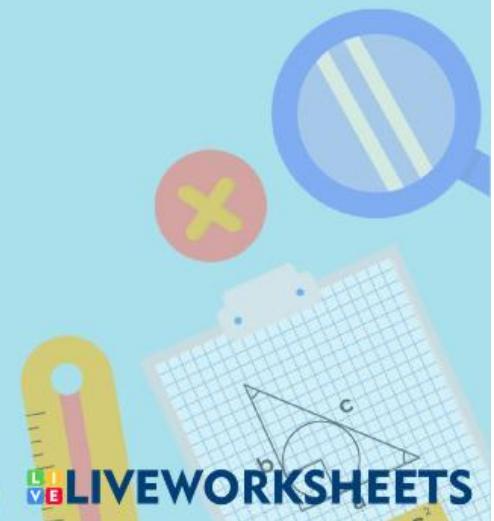
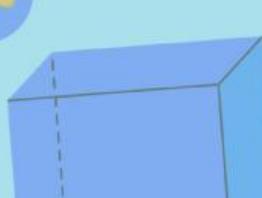
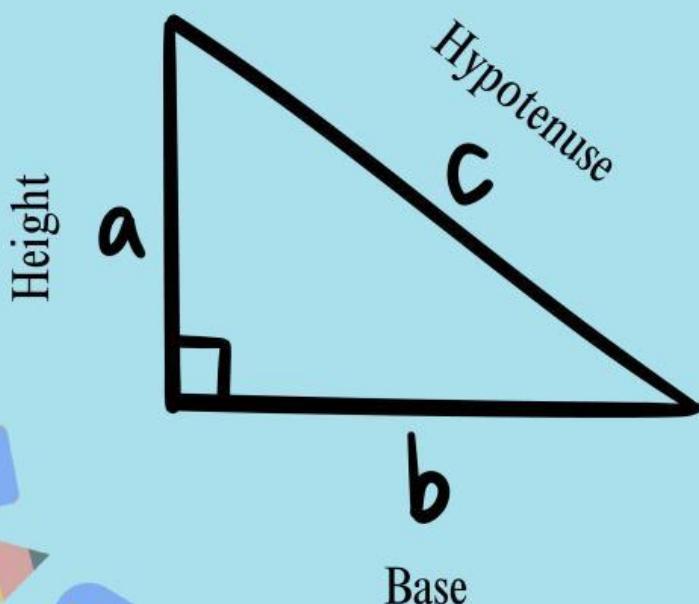
He was a remarkable Greek mathematician and philosopher best known through his theorem. He was widely known as the "Father of Numbers". He had an important contribution to philosophy and religious teaching in the late 6th century.

One of the mind-creation of the famous Pythagoras is the Pythagorean theorem, which states that in a right-angled triangle the square of hypotenuse is equal to the sum of square of two other sides.

The Pythagorean theorem formula is a way to calculate the sides of a right triangle, where a right triangle has three sides, namely the base, the height, and the hypotenuse.

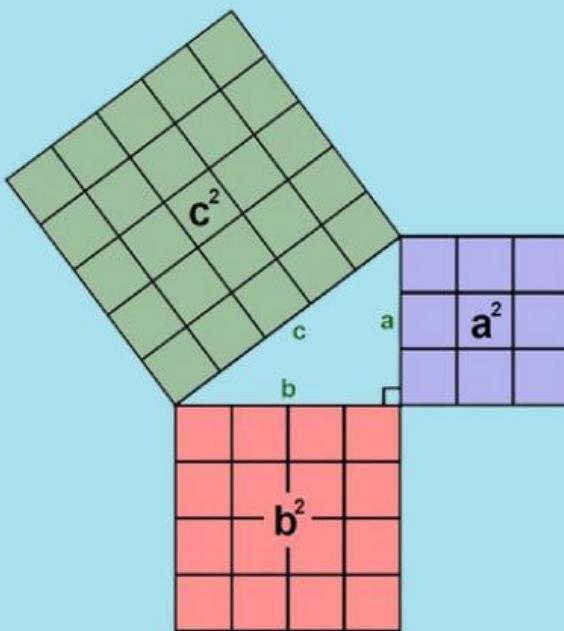
"In a right triangle, the square of the hypotenuse is equal to the sum of the squares of the other sides."

Right-Angled Triangle



Activity 1

Let's find the proof of the Pythagorean theorem!



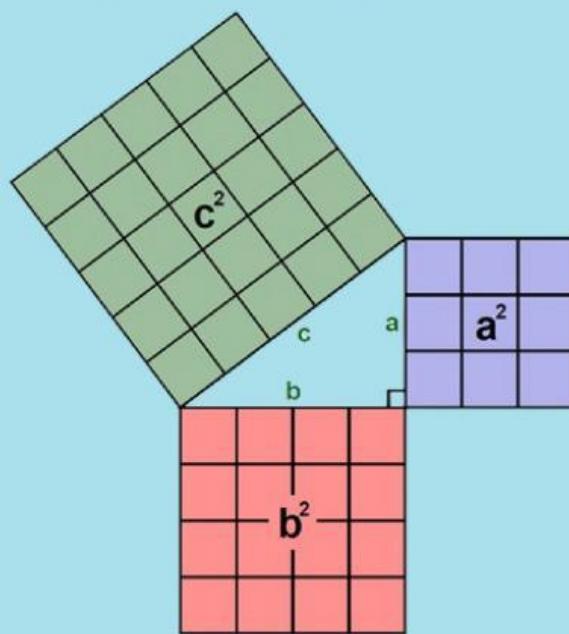
Area of Square a
 $3 \times \dots = \dots$ Unit

Area of Square b
 $\dots \times 4 = \dots$ Unit

Area of Square c
 $\dots \times \dots = 25$ Unit

Activity 1

Let's find the proof of the Pythagorean theorem!



The relationship between a, b, and c

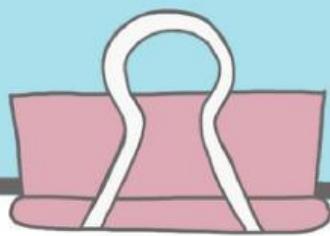
$$9 + 16 = 25$$

$$\dots^2 + \dots^2 = 5^2$$

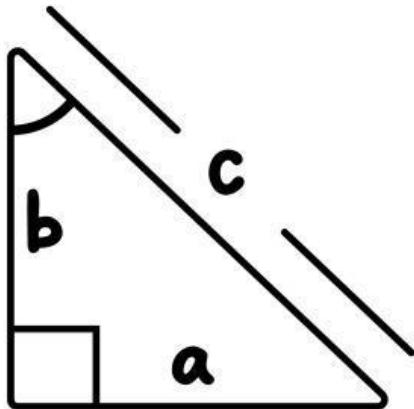
$$a^2 + \dots^2 = \dots^2$$

Activity 1

Let's find the proof of the Pythagorean theorem!



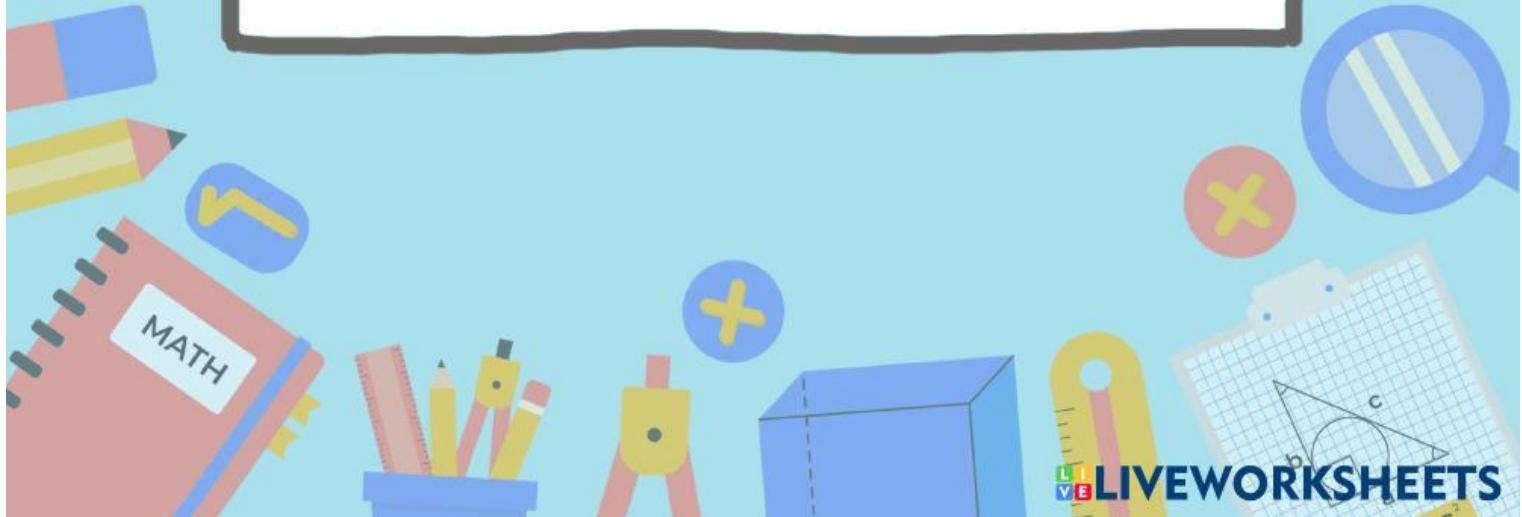
Conclusion :



$$c^2 = \dots^2 + \dots^2$$

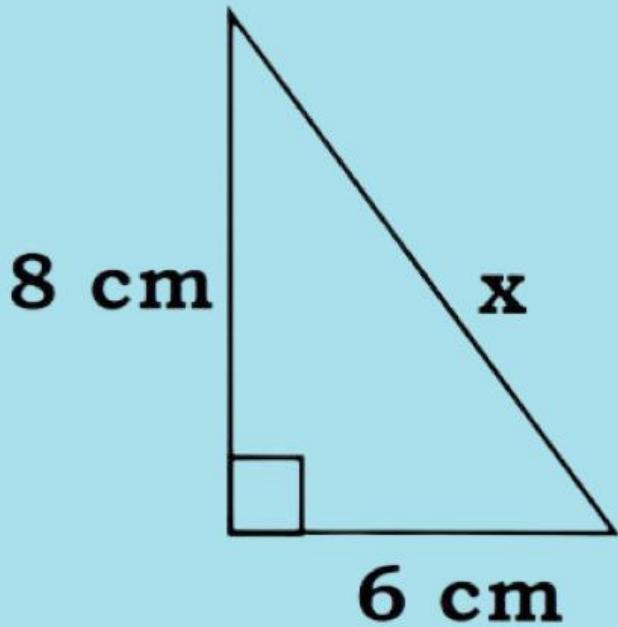
$$a^2 = \dots^2 - \dots^2$$

$$b^2 = \dots^2 - \dots^2$$



Activity 2

Find the values of the sides of the right triangle!



x?

$$x^2 = \dots^2 + 6^2$$

$$x^2 = \dots + \dots$$

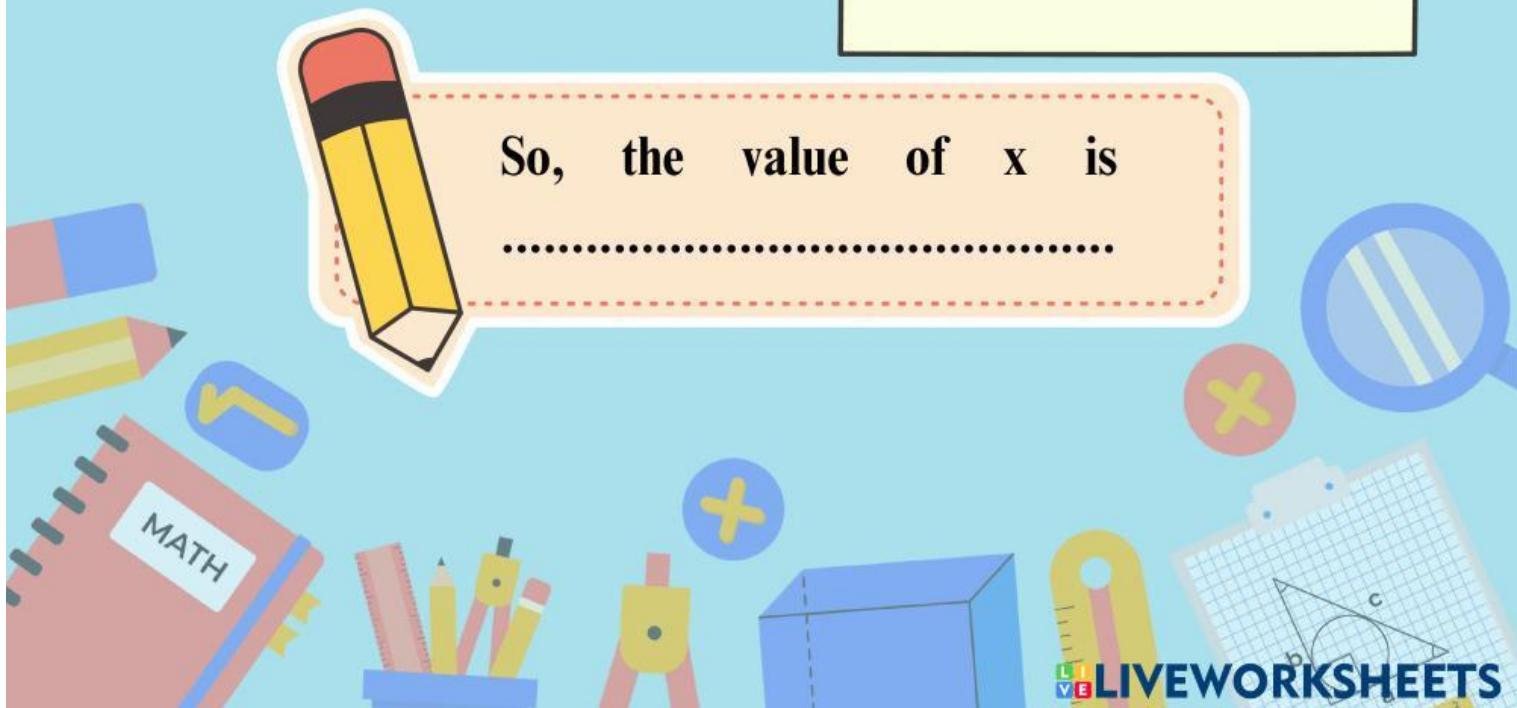
$$x^2 = \dots$$

$$x = \sqrt{\dots}$$

$$x = \dots$$

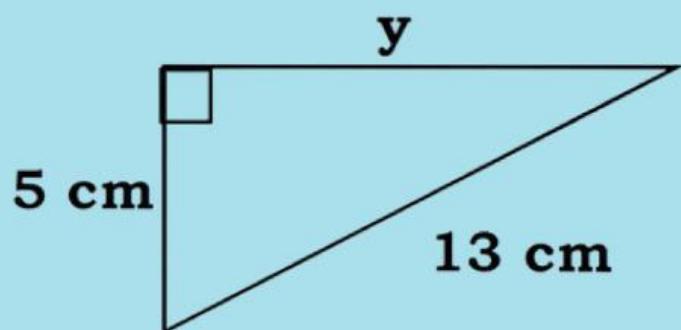
So, the value of x is

.....



Activity 2

Find the values of the sides of the right triangle!



y?

$$y^2 = 13^2 - \dots^2$$

$$y^2 = \dots - \dots$$

$$y^2 = \dots$$

$$y = \sqrt{\dots}$$

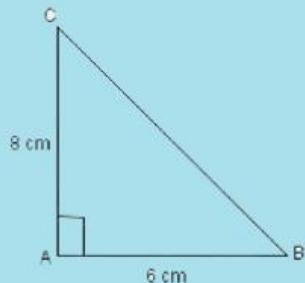
$$y = \dots$$

So, the value of y is
.....

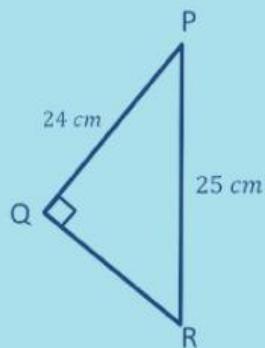


Activity 3

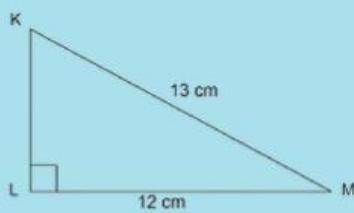
Match the picture of triangle on the left with correct answer on the right!



5



7



10



FUN GAMES

Let's play games about the Pythagorean theorem!

<https://wordwall.net/resource/72479599>

<https://wordwall.net/resource/72481468>