The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the slide.

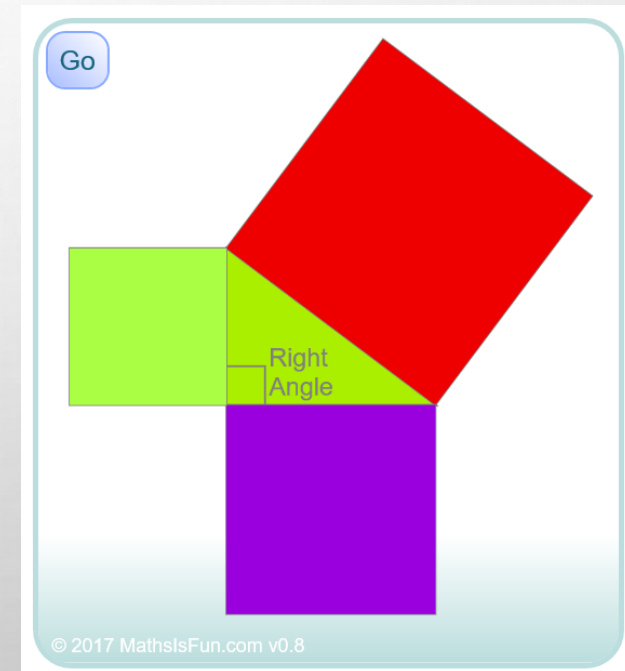
**To understand how to
use Pythagoras'
Theorem.**

Who was Pythagoras?

Pythagoras was a classical Greek mathematician and philosopher who was born in 570BC on the island of Samos.

At this time mathematics was in its early stages. Pythagoras made an interesting discovery.

When a triangle has an angle of 90 degrees (right-angled triangles), **and squares are made on each of the three sides**, then the largest square has the exact same area of the two smaller squares put together.

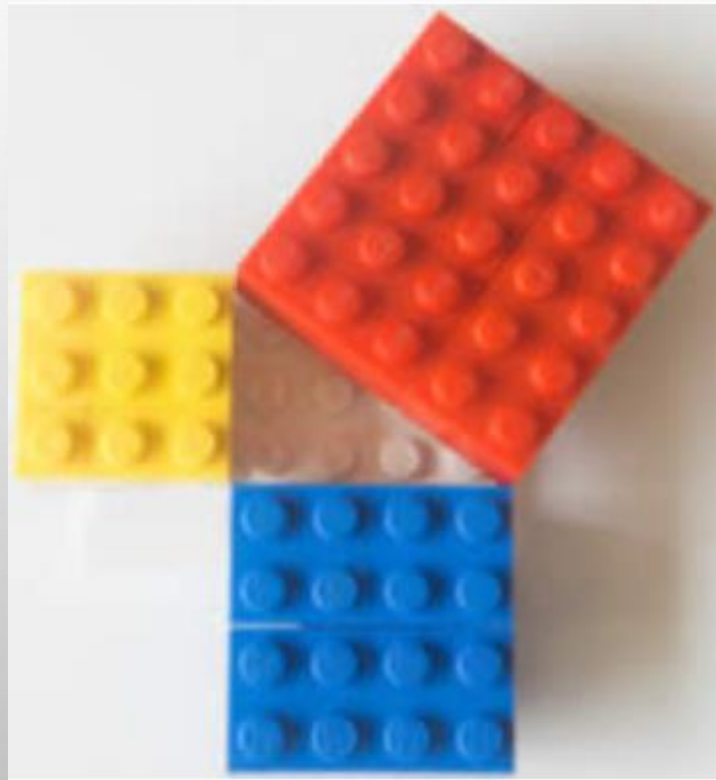


Lego Proof

When a triangle has an angle of 90 degrees (right-angled triangles), **and squares are made on each of the three sides**, then the largest square has the exact same area of the two smaller squares put together.

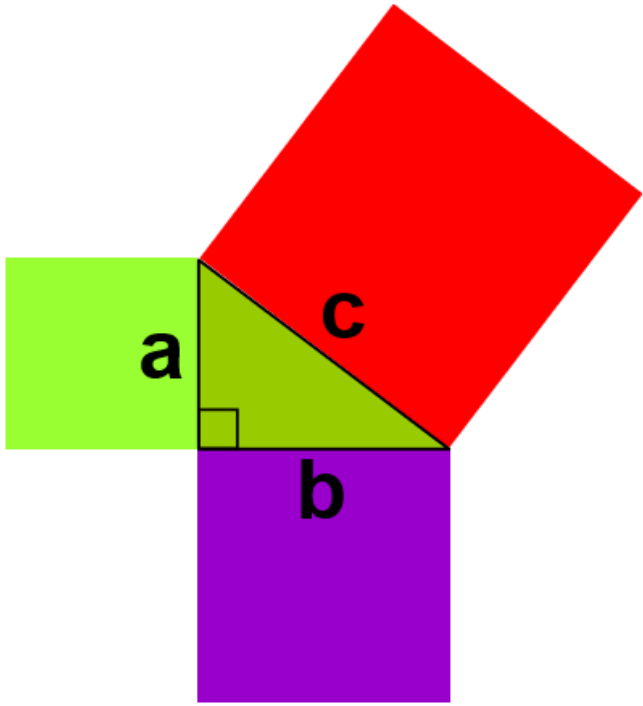
$$9 + 16 = 25$$

Yellow has 9 squares



Red has 25 squares

Blue has 16 squares

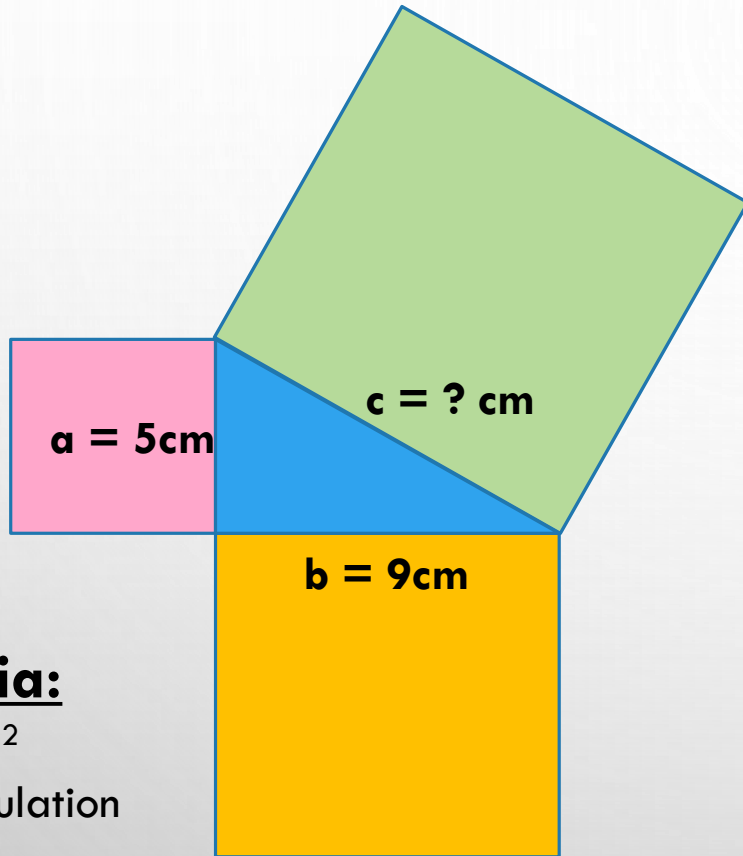


It is called "Pythagoras' Theorem" and can be written in one short equation:

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

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

Another example:



Success Criteria:

- ✓ Use $a^2 + b^2 = c^2$
- ✓ Check your calculation
- ✓ BODMAS
- ✓ Units of measure
- ✓ If you cannot find the square root display your answer as $\sqrt{106}$.

Our formula: $a^2 + b^2 = c^2$

Our formula: $a^2 + b^2 = c^2$
 $5\text{cm}^2 + 9\text{cm}^2 = c^2$

Our formula: $a^2 + b^2 = c^2$
 $25\text{cm}^2 + 81\text{cm}^2 = 106\text{cm}^2$

This gives us the area of the green square.

To find the length of the side you would find the square root of 106.

This will be challenging without a calculator so we can write it as $\sqrt{106}$.