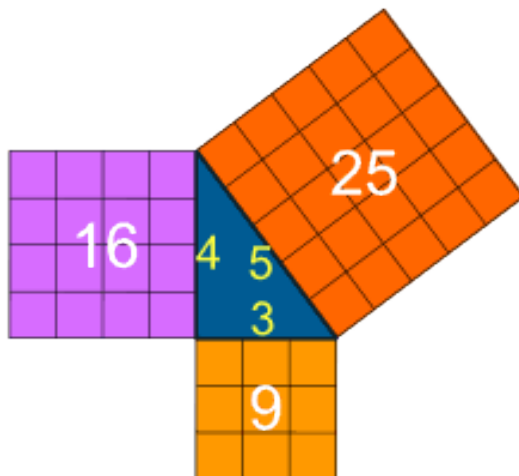


The Pythagorean Theorem has many (hundreds) of different proofs



**Conjecture:** For any right triangle with sides  $a$ ,  $b$ , and  $c$  ( $c$  is the longest side), we have:

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

These proofs use deductive reasoning and are built from claims that are known to be true

**Your TASK**

1. In groups of two, find on the internet a known proof of the Pythagorean theorem. A good website to start would be: <http://www.cut-the-knot.org/pythagoras/index.shtml>
2. Create a two-column visual for the proof you have selected. The challenge will be to identify each of the claims of your proof and then to understand how it is supported in the explanation.

To give you an idea, each proof should have between 5 and 10 claims. Some are harder and longer than others. Choose one that makes sense to you.

Example:

Claim	Support
Triangles have 3 sides	This is by definition of triangles

3. When we are finished, we will be setting up like a mini-fair and you will have an opportunity to explain your proof to classmates and Mr. Nguyen.

**Remember!** This assignment is on deductive reasoning; using example may help your own understanding but are unnecessary and do not add anything to the proof.