PYTHAGORAS 1

You Need

- Six [6] shapes - one [1] triangle, one square and four [4] quadrilaterals

The Story

Pythagoras lived in Greece during the 6th century B.C. He was a mathematician. His most famous discovery is known as Pythagoras' Theorem. It states:

For any right angled triangle, the area of the square on the hypotenuse is equal to the sum of the areas of the squares on the other two sides.

This task is one of many ways to demonstrate Pythagoras' Theorem.

Your Task

1. Put the triangle on the table and build a square on its longest side.
   - This longest side is called the hypotenuse.
   - It is opposite the right angle.
2. Move all the pieces to build squares on the other two sides.
3. Measure the large square and calculate its area.

   Measure each of the two smaller squares and calculate each area.

   Can you find a connection?

Challenge

Draw a different shaped right angle triangle on graph paper.

- Carefully draw the square on each side.
- Pick up the pieces again and place the four-piece square in its place on the triangle. What is special about where the cut lines go?
- Carefully draw cut lines on your paper square.
- Cut out your two smaller squares and cut along the lines.

Your five [5] pieces should exactly fit into the hypotenuse square?

Draw and write in your journal to explain Pythagoras' Theorem.

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