

Discovering the Pythagorean Theorem Using Area

1. Assign each group one of the rows from the chart below.
2. Use the grid paper to create a right triangle with legs equal to leg 1 and leg 2 using the chart below.
3. Position this triangle in the center of a piece of poster paper.
4. Cut out square from the same grid paper whose side equals each of the legs of the right triangle. Glue these down next to the corresponding sides of the triangle.
5. Cut out a third square from the same grid paper whose side equals the length of the hypotenuse. Glue this down next to the hypotenuse.
6. As your group completes their poster, fill in the chart below. Collect the data from other groups.
7. Study the chart to look for a pattern with the area of the three squares.

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Length of Leg 1 (shorter leg)	Length of Leg 2 (longer leg)	Length of Hypotenuse	Area of Square on Leg 1	Area of Square on Leg 2	Area of Square on Hypotenuse
3	4				
6	8				
5	12				
9	12				
10	24				
8	15				
12	15				