

Pythagorean Theorem
Explore

Materials:

For this investigation, you will need:

- 2-3 sheets of colored cardstock grid paper
- Scissors
- 1 sheet of plain grid paper

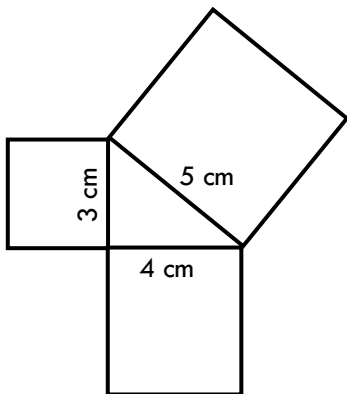
Procedure:

1. On the cardstock grid paper, trace and cut out squares with each of the following side lengths:

- | | | | |
|-----------|-----------|----------|----------|
| 2.5 units | 5 units | 8 units | 12 units |
| 3 units | 6 units | 9 units | 13 units |
| 4 units | 6 units | 10 units | 15 units |
| 5 units | 6.5 units | 12 units | |

Be sure to label the side lengths of each square.

2. Use three squares at a time to make a triangle as shown below.
3. Place your three squares on the grid paper to see if your triangle is a right triangle. Each square will be used only once.
4. If the triangle is a right triangle, record the lengths of the sides **and** the areas of each of the three squares in the table. One is done for you as an example.



Side Length of Smallest Square (a)	Side Length of Middle Square (b)	Side Length of Largest Square (c)	Area of Smallest Square (a^2)	Area of Middle Square (b^2)	Area of Largest Square (c^2)
3	4	5	9	16	25



