

Exploring Relationships in Right Triangles

Each person:

1. Draw a right triangle on 0.5-cm grid paper. Label sides a , b , and c , where c is the *hypotenuse*, the side opposite the right angle.
2. Measure the length of the hypotenuse. Record the measures of the three side lengths in the table below.
3. Draw a square on each side of the triangle. Determine the area of each square in square centimetres. Record the measures in the table.

As a group:

4. Complete the table.

Group member	Length, side a	Length, side b	Length, side c	Area, a^2	Area, b^2	Area, c^2

5. What patterns or relationships do you notice?

Exploring Relationships in Right Triangles (Accommodation)

Each person:

1. Draw one of the right triangles described in the table on 0.5-cm grid paper. Label sides a , b , and c , where c is the *hypotenuse*, the side opposite the right angle.
2. On another piece of 0.5 cm grid paper, draw a square with each side length, a , b , and c . Cut out each square and attach them to the sides of the triangle. Determine the area of each square. Record the measures in the table.

As a group:

3. Complete the table.

Group member	Length, side a	Length, side b	Length, side c	Area, a^2	Area, b^2	Area, c^2
1	6	8	10			
2	5	12	13			
3	1.5	2	2.5			
4	2.5	6	6.5			

4. What patterns or relationships do you notice?