I. For this activity you will work with **four** congruent right triangles and three squares, one for each side of the triangle. Suppose that the triangle sides have length $a$, $b$, and $c$. (The hypotenuse has length $c$.)

A. Use the four triangles and the two smaller squares to make a single square. What is the length of one side of this square? Ans. 

Record below the pattern you use in the square labeled A.

B. Use the four triangles and the largest square to make a single square. What is the length of one side of this square? Ans. 

Record the pattern you use below in the square labeled B.
II. For this activity you will work with **two** congruent right triangles and the same three squares, one for each side of the triangle.

A. Use two triangles and the two smaller squares to make a single pentagon. Record below the pattern you use on the pentagon labeled A.

What are the lengths of the sides of the pentagon? Ans. ________________

B. Use two triangles and the largest square to make a single pentagon. Record below the pattern you use on the pentagon labeled B.

What are the lengths of the sides of the pentagon? Ans. ________________

III. Using either Activity I or II, write an explanation of why this activity shows that the largest square has the same area as the area of the two smaller squares combined.