

**TAKS Objective 7**  
**TEK 8.7C**  
**Tutorial**  
**(Grades 9 and 10)**

...use pictures or models to demonstrate the  
Pythagorean Theorem.

When checking to see if side lengths are right triangles, plug the two smaller sides in for “a” and “b” and the longest side in for “c”.

If the left-hand side of the Pythagorean Theorem equals the right-hand side, then the dimensions form a right triangle.

These type questions might include pictures of squares or word problems with given side lengths.

This is a model of the Pythagorean  
Triple 3 – 4 – 5.

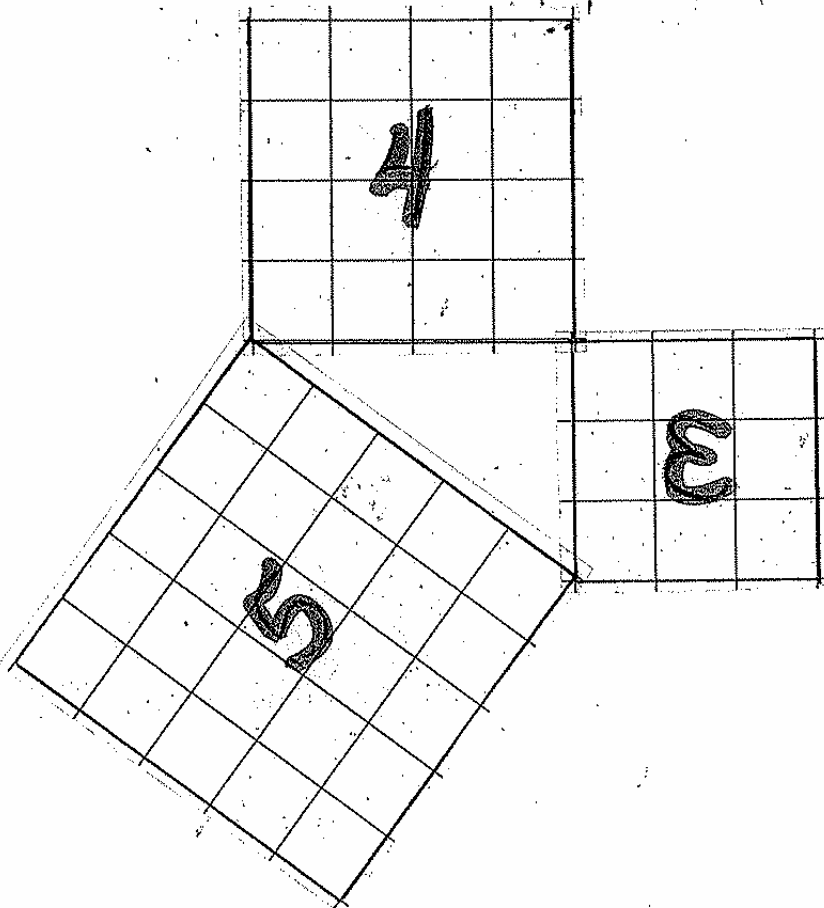
Notice:

$3^2$  is the area of the  
small square.

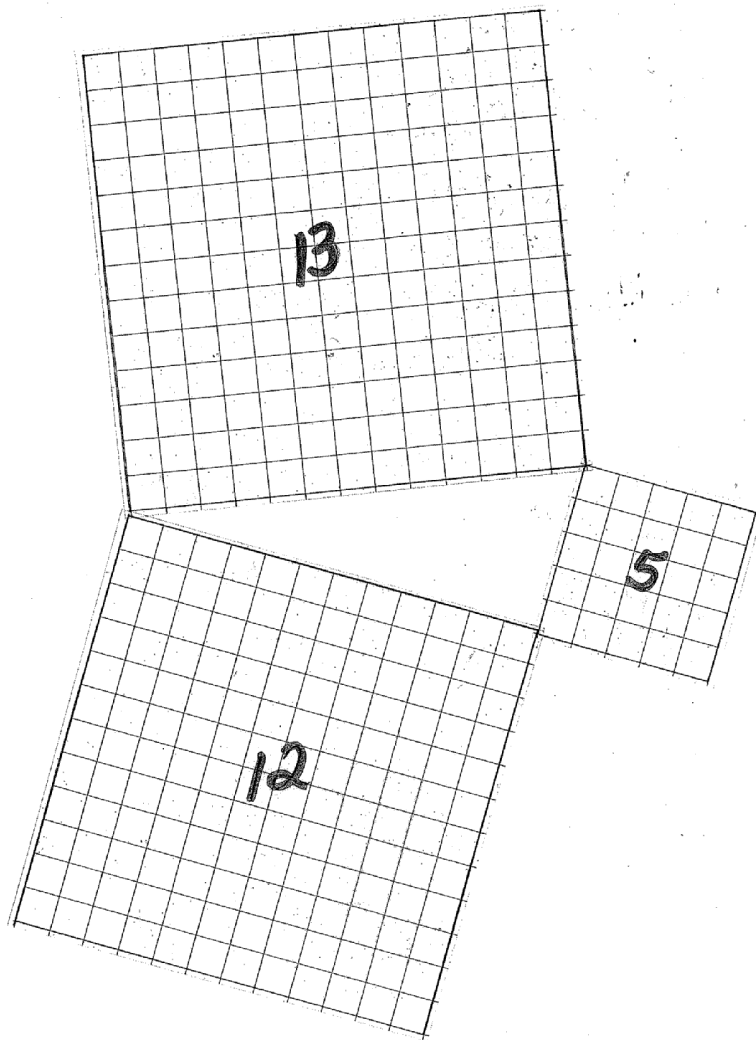
What are the areas of the  
other two squares?

Reminder:

$$a^2 + b^2 = c^2$$



This is a model of the Pythagorean  
Triple 5 – 12 – 13.



Notice:

$5^2$  is the area of the  
small square.

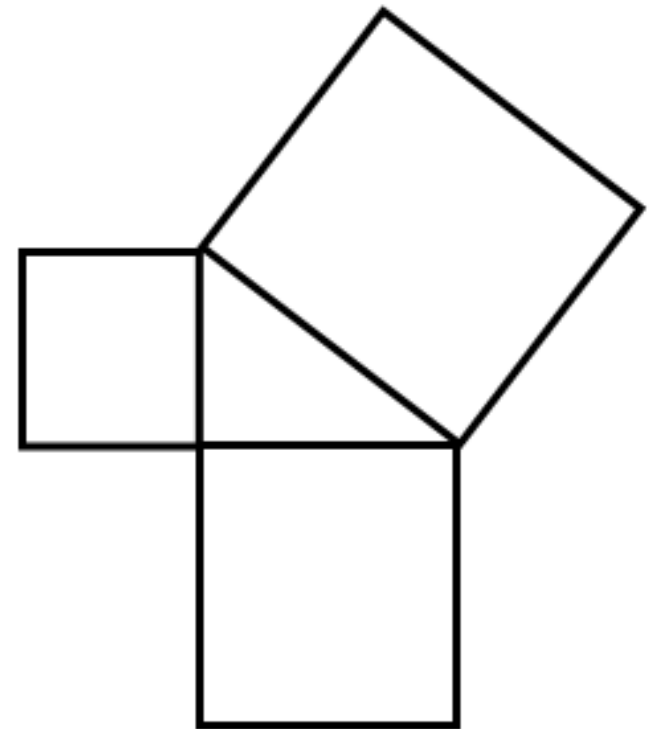
What are the areas of the  
other two squares?

Reminder:

$$a^2 + b^2 = c^2$$

Pictures might also look like this one.

You could be given  
the areas of two  
rectangles and asked  
to find the area or side  
length of the third.  
Use the Pythagorean  
Theorem.



Pictures might also look like this one.

You could be given the perimeters of two rectangles and asked to find the area or side length of the third. First, divide the perimeter by four and then use the Pythagorean Theorem.

