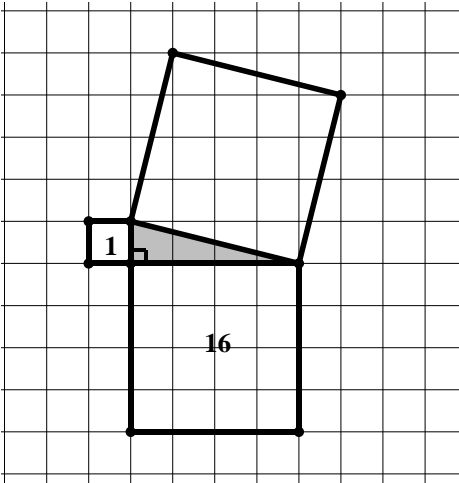


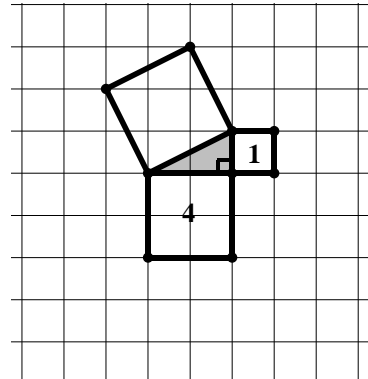
## 10.2a Homework: A Proof of the Pythagorean Theorem

**Directions:** In each of the problems below, a right triangle is shown in gray. The squares along each of the three sides of the triangles have been drawn. The area of two of the squares is given. Determine the area of the third square. Write your answer in the square.

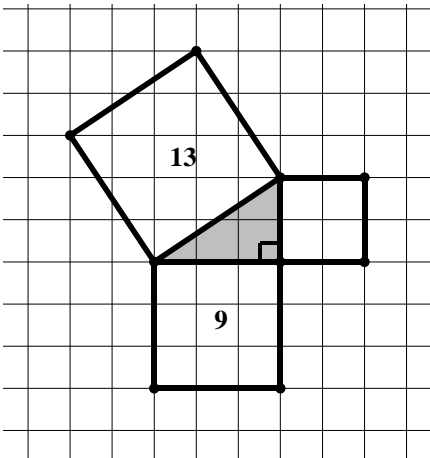
1.



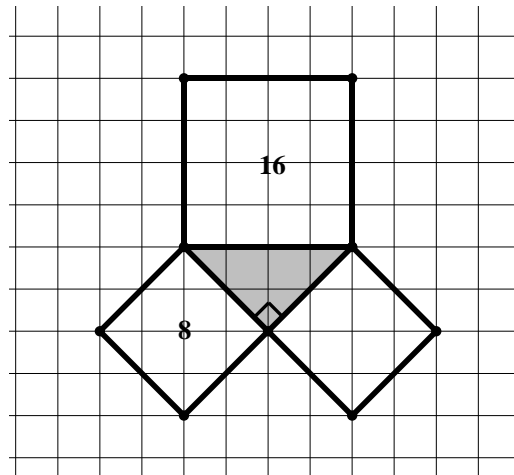
2.



3.

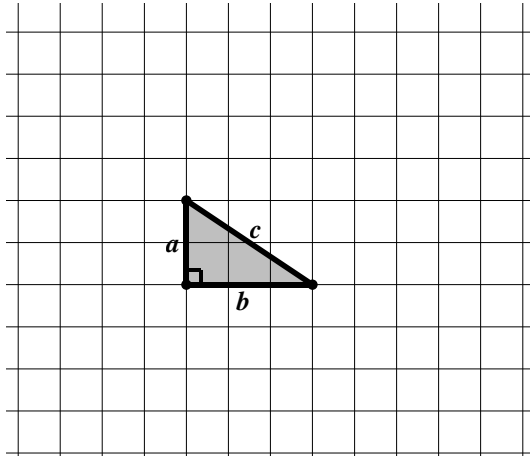


4.



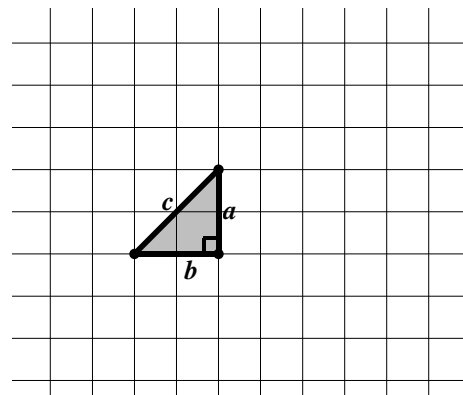
**Directions:** For each of the following problems, the gray triangle is a right triangle. Draw the squares adjacent to each of the three sides of the triangles. Find the area of each square and write the area in each square. Then, find the side lengths  $a$ ,  $b$ ,  $c$  of each triangle.

5.



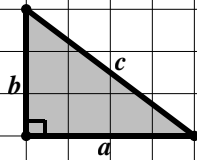
$a = \underline{\hspace{2cm}}$     $b = \underline{\hspace{2cm}}$     $c = \underline{\hspace{2cm}}$

6.



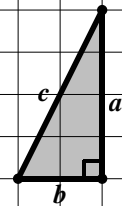
$a = \underline{\hspace{2cm}}$     $b = \underline{\hspace{2cm}}$     $c = \underline{\hspace{2cm}}$

7.



$a = \underline{\hspace{2cm}}$     $b = \underline{\hspace{2cm}}$     $c = \underline{\hspace{2cm}}$

8.



$a = \underline{\hspace{2cm}}$     $b = \underline{\hspace{2cm}}$     $c = \underline{\hspace{2cm}}$