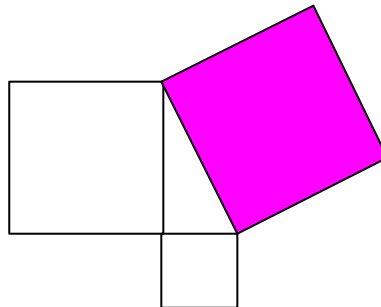


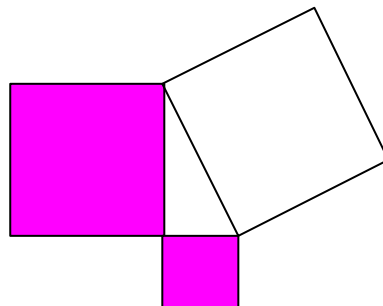
## VISUAL DEMONSTRATION OF THE PYTHAGOREAN THEOREM-3

You will surely know the classic statement of the **Pythagorean Theorem**, *the square of the hypotenuse is equal to the sum of the squares of the legs*. If  $a$  is the hypotenuse and  $b$  and  $c$  the legs:  $a^2 = b^2 + c^2$ . But this statement also has a very interesting geometric interpretation. Look: you will surely remember that the measurement of the area of a square is the square of the length of its side. Considering this, Pythagoras' Theorem could also be enunciated this way: *the area of the square that has the hypotenuse as a side, is equal to the sum of the areas of the squares whose sides are the legs*. You are going to verify this with the aid of this puzzle. You will have to prove that the square constructed on the hypotenuse has exactly the same area that both squares constructed on the legs.

- ✍ Using all the pieces, and placing them properly, you must manage to fill in the square constructed on the hypotenuse:



- ✍ Then, using all the pieces as well, you must manage to fill in the two squares constructed on the legs:



YOU WILL NEED:

Puzzle (5 pieces) and the checking board