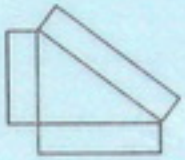
PYTHAGORAS RODS

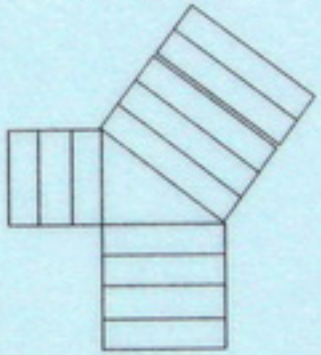
RIALS

hree [3] light green rods, four [4] pink rods, five [5] yellow rods, six [6] dark green rods, eight [8] brown rods, ten [10] orange rods

1. Measure the length (in centimetres) of one rod of each colour.
2. Use one each of the 3, 4, 5 rods to make a right angled triangle like this:

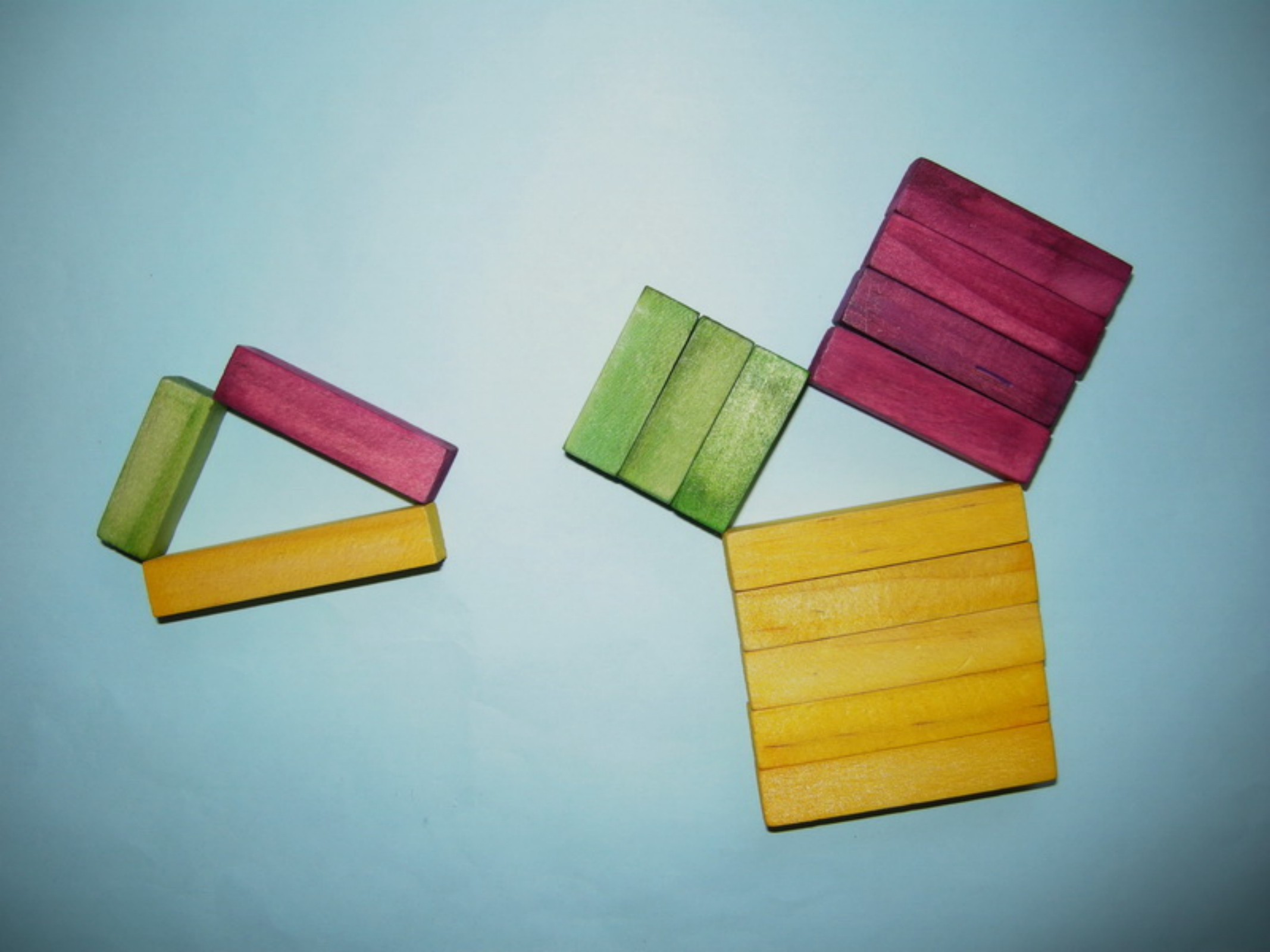


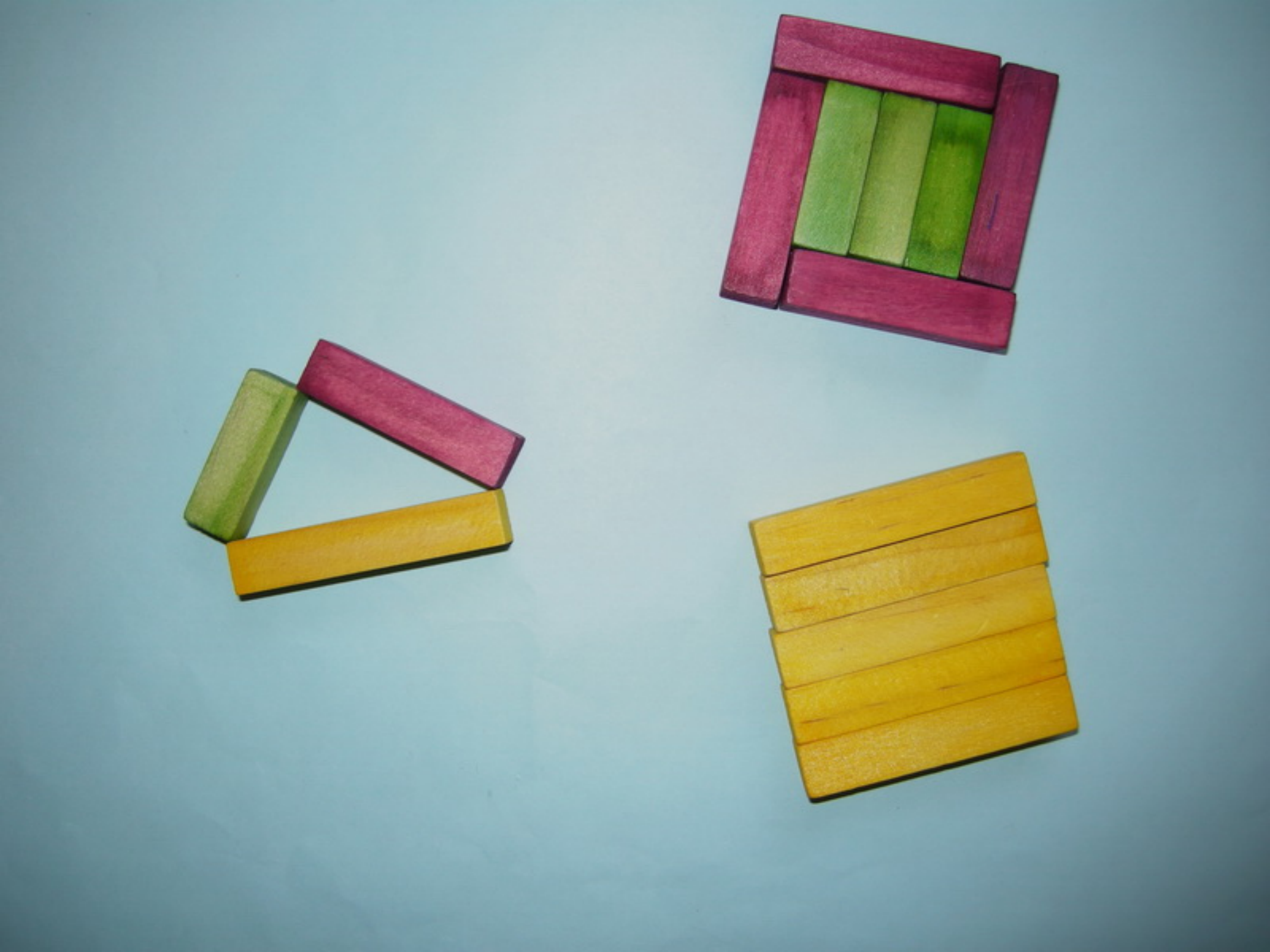
Now build a square onto each side like this:

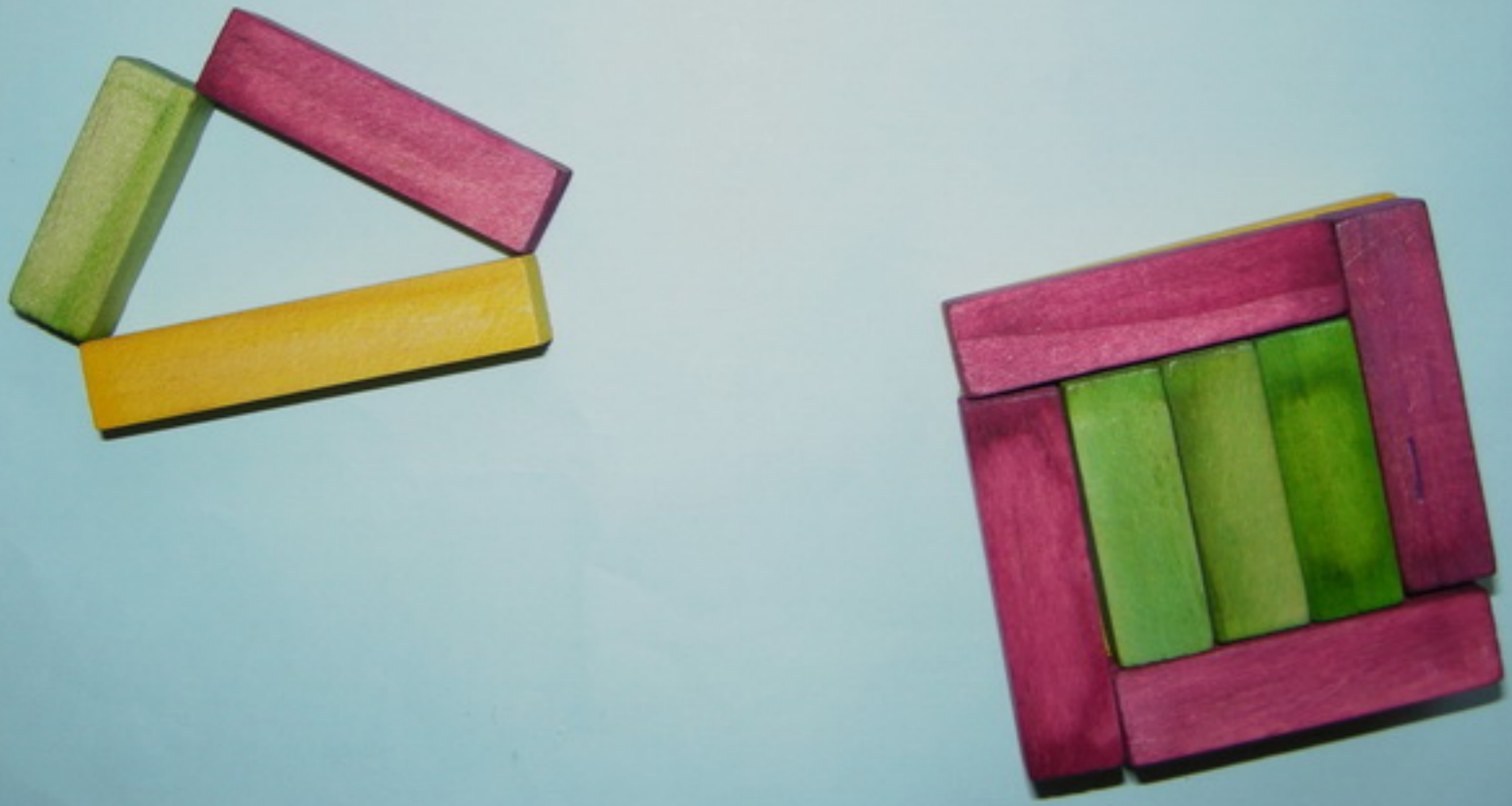


3. Work out the area of each square.
4. Find three different ways of placing the two smaller squares onto the larger one to illustrate that: $3^2 + 4^2 = 5^2$

5. Use the 6, 8, 10 rods in a similar way to *first* build a right angle triangle *and then* show that the two smaller squares can be exactly placed on top of the larger square.
   You are demonstrating Pythagoras' Theorem.
6. Build a 5, 8, 10 triangle and then build a square on each side.
   Does Pythagoras' Theorem work? - why? or why not?







SQUARE PAIRS

MATERIALS

Tiles numbered 1 [one] to 20 [twenty]

1. Arrange the tiles in a list from 1 [one] to 16 [sixteen]. Use the tiles to make 8 pairs so that each pair adds to a square number.
   NB: The sum of each pair does NOT have to be the same square number.

1	8	9	16

This pair sums to 9 (3^2) *This pair sums to 25 (5^2)*