

Problem solving challenge #4:

1. Tile problem

You work for a tile manufacturing company. The company has overstocked a certain set of tiles. There are three different tiles in this particular set. One is a large square tile, the second is a small square tile and the third is a rectangle. The length of the rectangle is the same length as one side of the large square. The width of the rectangle is the same size as one side of the small square.



This happens to work out to be good news. A set of these tiles can be arranged into rectangular configurations to create nice tile patterns.

Find all the rectangular configurations that can be made using 6 large squares and 4 small squares along with a certain number of rectangles.

How many rectangles are needed to make a rectangular configuration? Explain how you know.

Illustrate all the different configurations that can be created.

Explain how you know that you have found all possible rectangular configurations.