

Chapel Hill Math Circle – Beginner's Group
12.1.18

1 - Consider 3 squares of the same size. We want to create shapes with them so that each square is completely touching at least one other square along an entire edge. How many different shapes can you make? Please draw them below.

2 - Consider 4 squares of the same size. We want to create shapes with them so that each square is completely touching at least one other square along an entire edge. How many different shapes can you make? Please draw them below. (these are the tetrominoes!)

3 - Consider 5 squares of the same size. We want to create shapes with them so that each square is completely touching at least one other square along an entire edge. How many different shapes can you make? Please draw them below.

When you finish the first 3 questions ask a volunteer for a worksheet with the tetrominoes. Please cut them out and start working on the questions below.

Working with a partner, use your 10 tetrominoes(5 each) to make a 5 by 8 rectangle. Draw your pattern below.

Working with a partner, use your 10 tetrominoes(5 each) to make a 4 by 10 rectangle. Draw your pattern below.

If you finish early, use your tetrominoes to make a shape, draw an outline of that shape on a sheet of paper and give it to someone else. Have them try to guess how you arranged the tetrominoes.