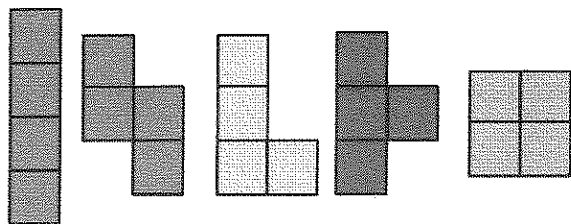


G3-M7-Lesson 7

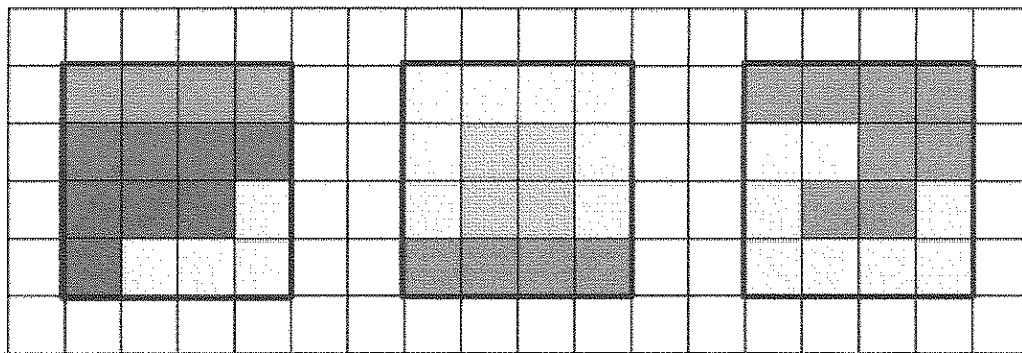
The directions tell me the area of each square has to be 16 square units. I can figure out how many tetrominoes I will need by dividing, $16 \text{ square units} \div 4 \text{ square units} = 4$. I will need to use 4 tetrominoes for each square.

1. Use tetrominoes to create three squares, each with an area of 16 square units. Then, color the grid below to show how you created your squares. You may use the same tetromino more than once.

Tetrominoes



A tetromino is a shape that has an area of 4 square units, and each square unit shares a whole side with another square unit. This is a set of tetrominoes.



A strategy I can use to help me make a square with an area of 16 square units is by first marking a 4 by 4 square on the grid. This will help me make sure that my square has the right area. Then I can build the square with the tetrominoes. Sometimes I will need to rotate or flip my tetrominoes to build my shape.

I can check that my shapes are squares by counting the number of square units on each side and making sure they are all equal. I can also use my right angle tool to make sure that each shape has 4 right angles.

2. Explain how you know the area of each square is 16 square units.

I know the area of each square is 16 square units because I used 4 tetrominoes to make each square. Each tetromino has an area of 4 square units, and 4×4 square units = 16 square units.

- a. Write a number sentence to show the area of a square from Problem 1 as the sum of the areas of the tetrominoes you used to make the square.

Area: 4 square units + 4 square units + 4 square units + 4 square units = 16 square units

- b. Write a number sentence to show the area of a square above as the product of its side lengths.

Area: 4 units \times 4 units = 16 square units

I know side lengths are measured in length units, and area is labeled in square units.

The directions say to write a number sentence that shows the area of a square as the sum of the areas of the tetrominoes, so I know that each of my addends is labeled in square units.