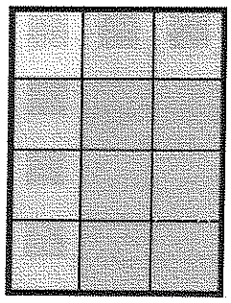
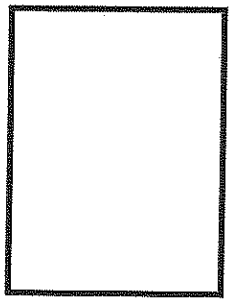
G3-M4-Lesson 7

1. Find the area of the rectangular array. Label the side lengths of the matching area model, and write a multiplication equation for the area model.

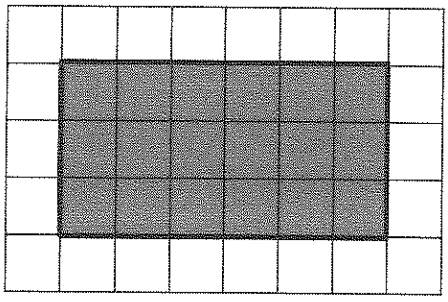
Rectangular Array	Area Model
 12 square units	4 *units*  3 *units* 4 units × 3 units = 12 square units

I can skip-count rows by 3 or columns by 4 to find the area of the rectangular array.

I can use the rectangular array to help me label the side lengths of the area model. There are 4 rows, so the width is 4 units. There are 3 columns, so the length is 3 units.

I can multiply 4 × 3 to find the area. The area model and the rectangular array have the same area of 12 square units.

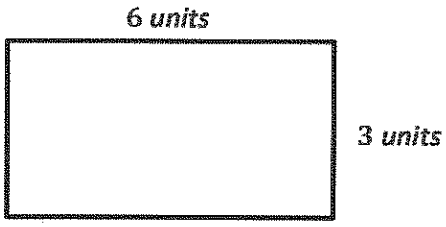
2. Mason arranges square pattern blocks into a 3 by 6 array. Draw Mason's array on the the grid below. How many square units are in Mason's rectangular array?

a. 

There are 18 square units in Mason's rectangular array.

I can draw a rectangular array with 3 rows and 6 columns. Then I can multiply 3 × 6 to find the total number of square units in the rectangular array.

b. Label the side lengths of Mason's array from part (a) on the rectangle below. Then, write a multiplication sentence to represent the area of the rectangle.



I can use the rectangular array in part (a) to help me label the side lengths of this area model. There are 3 rows and 6 columns in the rectangular array, so the side lengths are 3 units and 6 units.

$3 \text{ units} \times 6 \text{ units} = 18 \text{ square units}$

I can multiply the side lengths to find the area.

3. Luke draws a rectangle that is 4 square feet. Savannah draws a rectangle that is 4 square inches. Whose rectangle is larger in area? How do you know?

Luke's rectangle is larger in area because they both used the same number of units, but the size of the units is different. Luke used square feet, which are larger than square inches. Since the units that Luke used are larger than the units that Savannah used and they both used the same number of units, Luke's rectangle is larger in area.

I can think about the lesson today to help me answer this question. My partner and I made rectangles using square inch and square centimeter tiles. We both used the same number of tiles to make our rectangles, but we noticed that the rectangle made of square inches was larger in area than the rectangle made of square centimeters. The larger unit, square inches, made a rectangle with a larger area.