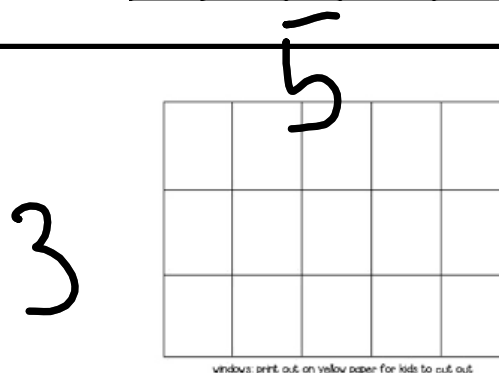
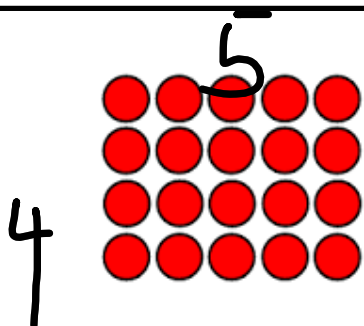
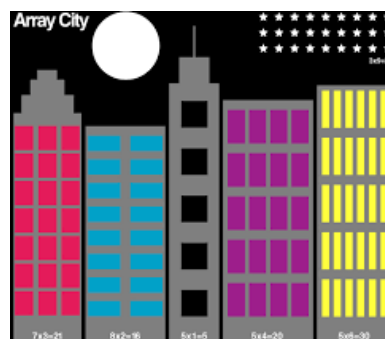
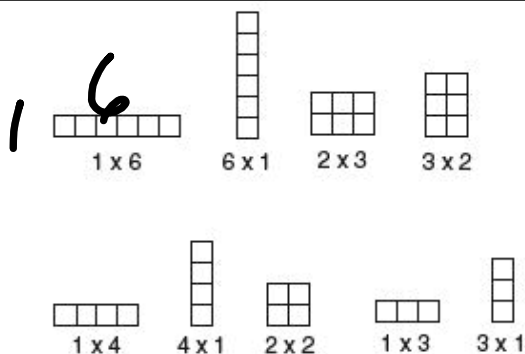



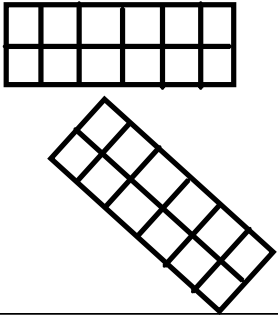
## New Vocabulary:

Array - items arranged in rows and columns

Dimensions - the measurement of length of each side of an object



## Things that come in an *array*

What is it?	How many are in the <i>array</i> ?	What are the <i>dimensions</i> of the <i>array</i>	Drawing of the <i>array</i>
	12	2 rows of 6 $2 \times 6$ 6 rows of 2 $6 \times 2$	
Class windows	12	$4 \times 3$ $3 \times 4$	
schedule	14	2 rows of 7 $2 \times 7$	

What are other ways you can think of to arrange 12 eggs into an array besides a 6 x 2?

New Vocabulary: Factor - numbers you can multiply together to get another number.

$$6 \times 2 = 12$$

$$2 \times 6 = 12$$

$$3 \times 4 = 12$$

$$4 \times 3 = 12$$

$$1 \times 12 = 12$$

$$12 \times 1 = 12$$

## Making Arrays

Directions: Work with your partner to find all the **arrays** for your numbers.

1. Cut out each new array from your grid paper.
2. Paste the new **arrays** onto the colored piece of paper.
3. Make sure to label the **dimensions** of each array.
4. Answer the questions on page 9 of your activity book.

1. Finish your posters.
2. If you and your partner are finished: look at your poster, do you notice any relationships between your two numbers? If so, what?
3. Be prepared to share what strategies you used to find all of the factors of your numbers. How did you know you had them all?

## Gallery Walk

As you look at other mathematicians posters answer the following questions in your notebook:

1. What are the smallest and largest factors of each number?
2. Which numbers have only 1 possible array?
3. Which numbers make a square array?

### New Vocabulary:

**Prime Number:** A number that can only be divided evenly by 1 or itself

Example: 5 can only be divided evenly by 1 or 5, so it is a prime number.

$$1 \times 5 \text{ or } 5 \times 1$$
$$17 \times 1 \text{ or } 1 \times 17$$

**Composite Number:** A whole number that can be divided evenly by numbers other than 1 or itself.

Example: 9 can be divided evenly by 3 (as well as 1 and 9), so 9 is a composite number.

**Square Number:** To multiply a number by itself.

Example:  $4 \times 4 = 16$     25    36

The largest factor of a number is the number itself. The smallest factor of any number is 1.