

Understanding Arrays

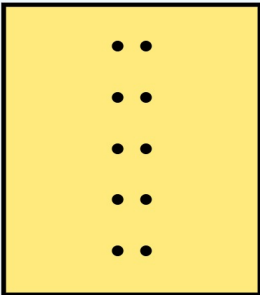
What is an Array?

An array is a group of objects arranged in equal **rows** and equal **columns**. This organization makes them easier to count!

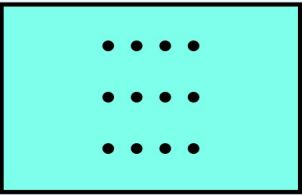
Rows go from side-to-side.

Columns go up and down.

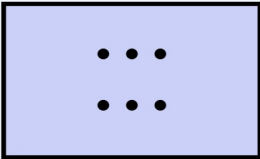
5×2 Array
5 rows
2 columns



3×4 Array
3 rows
4 columns



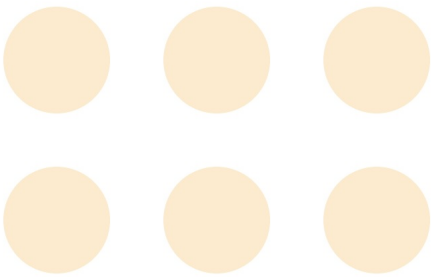
2×3 Array
2 rows
3 columns



How to Count Objects in an Array

To find the total, you can find the number of objects in a row, then skip count that many times

Example: An Egg Carton



This carton has **2 rows**.
Each row has **3 eggs**.
So we can skip count 3s twice: 3, then 6.

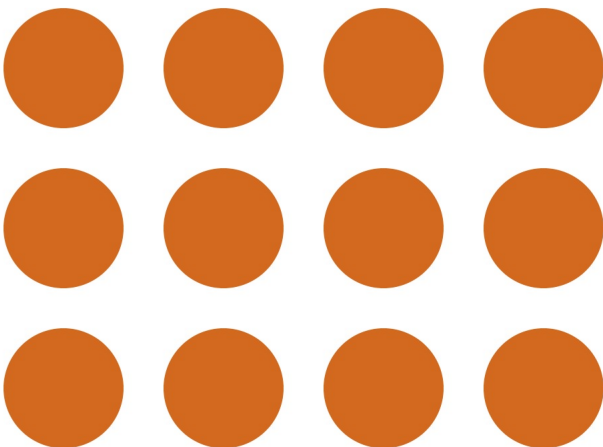
Equation: 2 rows of 3 = 6 total eggs.

Your Turn!

1. How many rows are there?

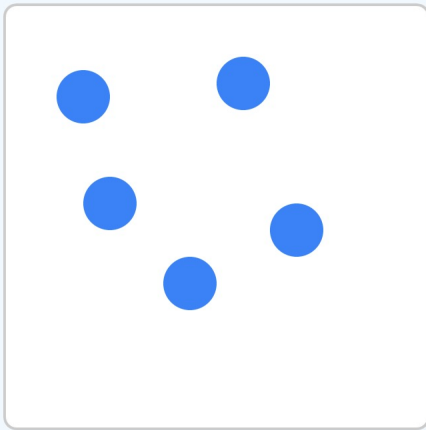
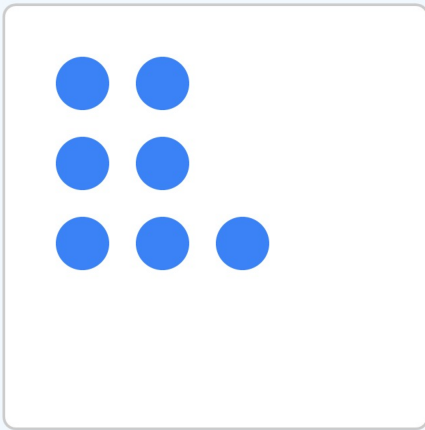
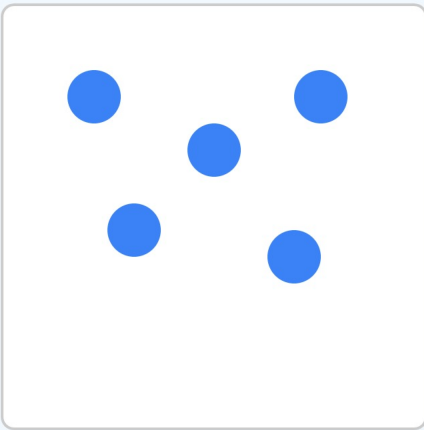
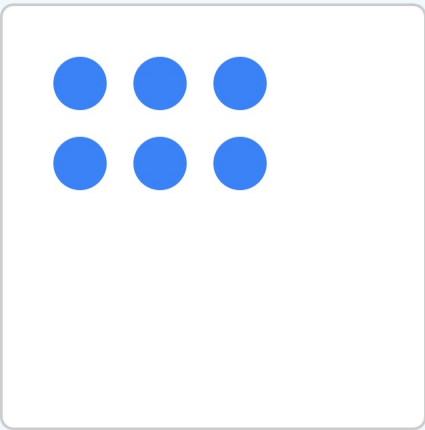
2. How many cookies in each row?

3. Write the equation to find the total cookies:



Practice 1: Identifying Arrays

Directions: Circle the pictures that show an array.



A.



Rows:

Columns:

Total:

B.



Rows:

Cols:

Total:

Practice 2: Counting in Arrays

Directions: For each array, write the number of rows, columns, and the total number of objects.

C.



Rows:

Columns:

Total:

D.



Rows:

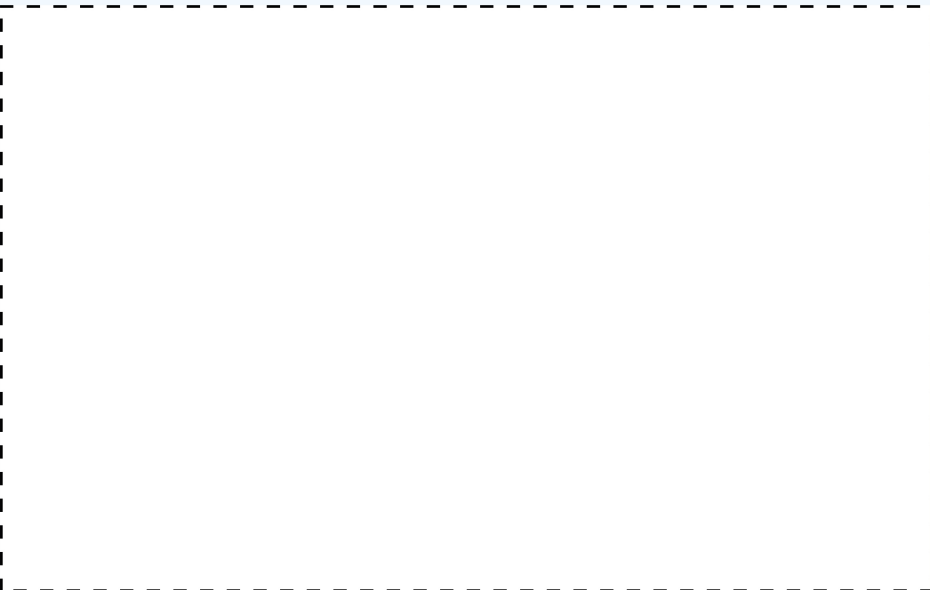
Columns:

Total:

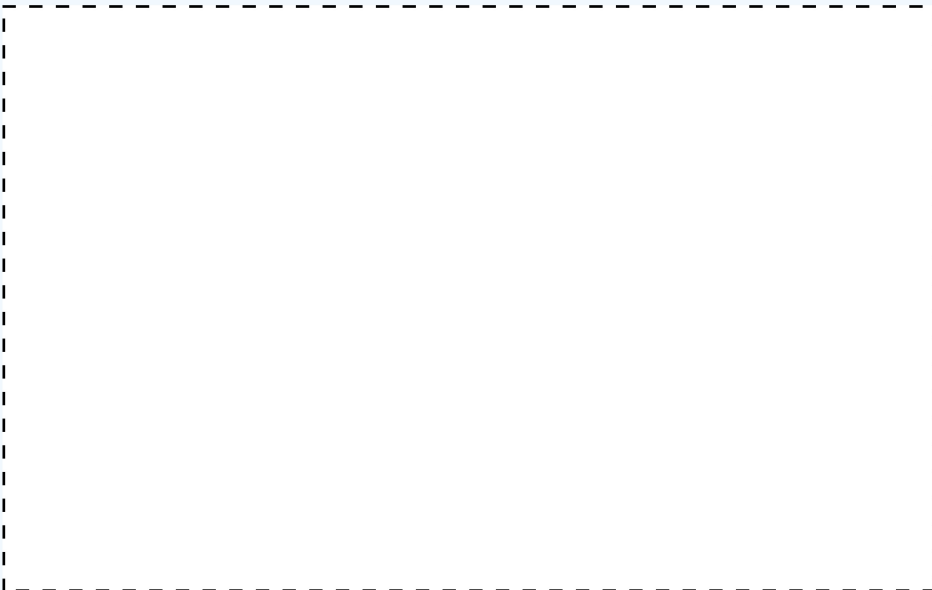
Practice 3: Drawing Arrays

Directions: Draw an array to match each description.

Draw an array with **2 rows** and **5 columns**.



Draw an array with **4 rows** and **3 columns**.



Practice Section 4: Array Word Problems

Emma has cookies on a tray with 3 rows and 4 cookies in each row. How many cookies does she have in total?

Practice Section 5: Creating Equal Groups

Show how 16 apples can be arranged in equal rows with 4 apples in each row. Draw your array below.

Challenge Problem

Show 12 objects in two *different* array arrangements.

Arrangement 1

Arrangement 2

Array Application & Review

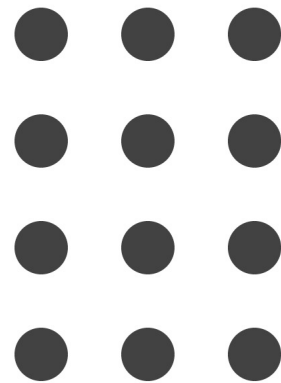
Application Practice: Real-World Arrays

A muffin tin has 3 rows. There are 15 muffins in all. How many muffins are in each row? Draw the array and write the answer.

Mixed Review

1. A classroom has desks in 5 rows with 6 desks in each row. Draw the array and find the total.

2. Analyze the array below. Write a repeated addition and multiplication sentence for it.



Self-Check Assessment

1. Draw a 2x6 array.

2. What is the total of a 5x3 array?

3. Write the repeated addition sentence for a 4x4 array.

4. A baker places cookies on a tray in 8 rows of 3. How many cookies are there?
