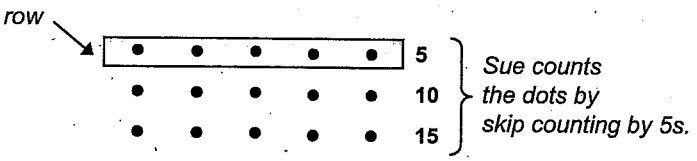
#1

Name: _____

NS6-16: Array and Factors

When you multiply a pair of numbers, the result is called the **product** of the numbers. You can represent a product using an **array**.



Sue writes a multiplication statement for the array: **3 × 5 = 15** (3 and 5 are called **factors** of 15)

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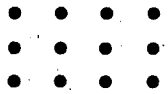
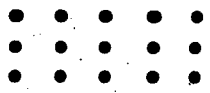
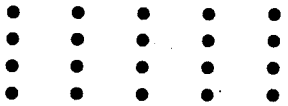
1. Write a multiplication statement for each array.

a) 

3 rows
4 dots in each row
3 × 4 = 12

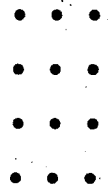
b) 

_____ rows
_____ dots in each row
_____

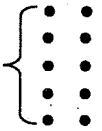
c) 

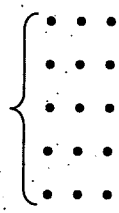
_____
_____
_____

2. Write a product for each array.

a) 

4 × 3
rows
dots in each row

b) _____ 

c) _____ 

d) _____ 

3. Draw arrays for these products.

a) 2 × 5 b) 3 × 7 c) 4 × 6 d) 1 × 8 e) 4 × 2

4. There are only *three* ways to arrange 4 dots in an array.
So there are only 3 ways to write 4 as a product of two factors.

 1 × 4 = 4

 **2 × 2 = 4**

 **4 × 1 = 4**

How many ways can you write each number as a product of two factors? (Draw arrays to help.)

a) 6 b) 8 c) 9 d) 10 e) 12

5. The numbers that appear beside the arrays in Question 4 are called the **factors** of 4.
The factors of 4 are the numbers 1, 2, and 4.
Write a list of factors for the numbers 6, 8, 9, 10, and 12.