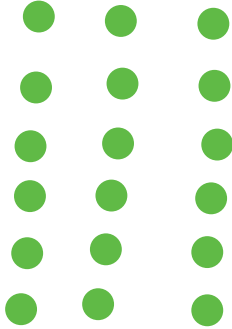


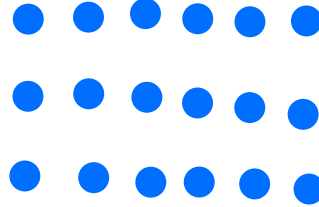
Name \_\_\_\_\_

Date \_\_\_\_\_

1. Draw an array that shows 6 rows of 3.



2. Draw an array that shows 3 rows of 6.



3. Write multiplication expressions for the arrays in Problems 1 and 2. Let the first factor in each expression represent the number of rows. Use the commutative property to make sure the equation below is true.

$$\underline{6} \times \underline{3} = \underline{3} \times \underline{6}$$

Problem 1                      Problem 2

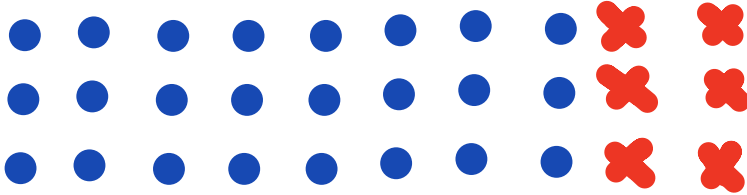
4. Write a multiplication sentence for each expression. You might skip-count to find the totals. The first one is done for you.

- a. 5 threes:  $\underline{5 \times 3 = 15}$       d. 3 sixes:  $\underline{3 \times 6 = 18}$       g. 8 threes:  $\underline{8 \times 3 = 24}$
- b. 3 fives:  $\underline{3 \times 5 = 15}$       e. 7 threes:  $\underline{7 \times 3 = 21}$       h. 3 nines:  $\underline{3 \times 9 = 27}$
- c. 6 threes:  $\underline{6 \times 3 = 18}$       f. 3 sevens:  $\underline{3 \times 7 = 21}$       i. 10 threes:  $\underline{10 \times 3 = 30}$

5. Find the unknowns that make the equations true. Then, draw a line to match related facts.

- a.  $3 + 3 + 3 + 3 + 3 + 3 = \underline{18}$       d.  $3 \times 9 = \underline{27}$
- b.  $3 \times 5 = \underline{15}$       e.  $\underline{18} = 6 \times 3$
- c.  $8 \text{ threes} + 1 \text{ three} = \underline{27}$       f.  $15 = 5 \times \underline{3}$

6. Fernando puts 3 pictures on each page of his photo album. He puts pictures on 8 pages.
- a. Use circles to draw an array that represents the total number of pictures in Fernando's photo album.



- b. Use your array to write and solve a multiplication sentence to find Fernando's total number of pictures.

$$3 \times 8 = 24 \quad \text{or} \quad 8 \times 3 = 24$$

- c. Fernando adds 2 more pages to his book. He puts 3 pictures on each new page. Draw x's to show the new pictures on the array in Part (a).

- d. Write and solve a multiplication sentence to find the new total number of pictures in Fernando's album.

$$3 \times 10 = 30 \quad \text{or} \quad 10 \times 3 = 30$$

7. Ivania recycles. She gets 3 cents for every can she recycles.

- a. How much money does Ivania make if she recycles 4 cans?

$$\underline{4} \times \underline{3} = \underline{12} \text{ cents}$$

← or  $3 \times 4$

- b. How much money does Ivania make if she recycles 7 cans?

$$\underline{7} \times \underline{3} = \underline{21} \text{ cents}$$

← or  $3 \times 7$