

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

- a.  $3 + 3 + 3 + 3 = \underline{\mathbf{12}}$                       d.  $3 \times 6 = \underline{\mathbf{18}}$
- b.  $3 \times 7 = \underline{\mathbf{21}}$                                       e.  $\underline{\mathbf{12}} = 4 \times 3$
- c.  $5 \text{ threes} + 1 \text{ three} = \underline{\mathbf{6 \text{ threes}}}$                       f.  $21 = 7 \times \underline{\mathbf{3}}$

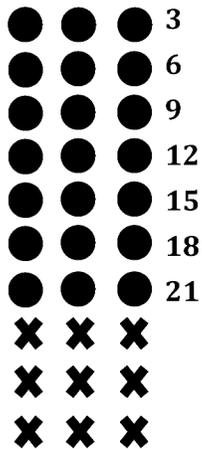
$3 + 3 + 3 + 3$  is the same as 4 threes or  $4 \times 3$ , which equals 12. These equations are related because they both show that 4 groups of 3 equal 12.

5 threes + 1 three = 6 threes. 6 threes is the same as 6 threes of 3 or  $6 \times 3$ , which equals 18. I can use the commutative property to match this equation with  $3 \times 6 = 18$ .

I can use the commutative property to match  $3 \times 7 = 21$  and  $21 = 7 \times 3$ .

2. Fred puts 3 stickers on each page of his sticker album. He puts stickers on 7 pages.

a. Use circles to draw an array that represents the total number of stickers in Fred's sticker album.



I can draw an array with 7 rows to represent the 7 pages of the sticker album. I can draw 3 circles in each row to represent the 3 stickers that Fred puts on each page.

I can draw 3 more rows of 3 to represent the 3 pages and 3 stickers on each page that Fred adds to his sticker album in part (c).

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

$$7 \times 3 = 21$$

*Fred puts 21 stickers in his sticker album.*

I can write the multiplication equation  $7 \times 3 = 21$  to find the total because there are 7 rows in my array with 3 circles in each row. I can use my array to skip-count to find the total, 21.

- c. Fred adds 3 more pages to his sticker album. He puts 3 stickers on each new page. Draw x's to show the new stickers on the array in part (a).

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

**24, 27, 30**

$$10 \times 3 = 30$$

*Fred has a total of 30 stickers in his sticker album.*

I can continue to skip-count by three from 21 to find the total, 30. I can write the multiplication equation  $10 \times 3 = 30$  to find the total because there are 10 rows in my array with 3 in each row. The number of rows changed, but the size of each row stayed the same.

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.

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

**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:  $5 \times 3 = 15$       d. 3 sixes: \_\_\_\_\_      g. 8 threes: \_\_\_\_\_

b. 3 fives: \_\_\_\_\_      e. 7 threes: \_\_\_\_\_      h. 3 nines: \_\_\_\_\_

c. 6 threes: \_\_\_\_\_      f. 3 sevens: \_\_\_\_\_      i. 10 threes: \_\_\_\_\_

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

a.  $3 + 3 + 3 + 3 + 3 + 3 =$  \_\_\_\_\_

d.  $3 \times 9 =$  \_\_\_\_\_

b.  $3 \times 5 =$  \_\_\_\_\_

e. \_\_\_\_\_  $= 6 \times 3$

c. 8 threes + 1 three = \_\_\_\_\_

f.  $15 = 5 \times$  \_\_\_\_\_



6. Fernando puts 3 pictures on each page of his photo album. He puts pictures on 8 pages.
- Use circles to draw an array that represents the total number of pictures in Fernando's photo album.
  - Use your array to write and solve a multiplication sentence to find Fernando's total number of pictures.
  - 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).
  - Write and solve a multiplication sentence to find the new total number of pictures in Fernando's album.
7. Ivania recycles. She gets 3 cents for every can she recycles.
- How much money does Ivania make if she recycles 4 cans?  
  
\_\_\_\_\_ × \_\_\_\_\_ = \_\_\_\_\_ cents
  - How much money does Ivania make if she recycles 7 cans?  
  
\_\_\_\_\_ × \_\_\_\_\_ = \_\_\_\_\_ cents

