## G3-M1-Lesson 8

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

a. 3+3+3+3= 12

d.  $3 \times 6 = _{\underline{\phantom{0}}}$ 

b.  $3 \times 7 = _{\underline{\phantom{0}}}$ 

e. <u>12</u> = 4 × 3

c. 5 threes + 1 three = \_\_\_\_\_18\_

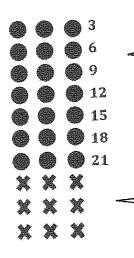
f. 21 = 7 × \_\_\_\_3

5 threes + 1 three = 6 threes. 6 threes is the same as 6 groups 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  $21 = 7 \times 3$ .

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.

- 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.

$$10 \times 3 = 30$$

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.