

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Mr. Hannigan puts 12 pencils into boxes. Each box holds 4 pencils. Circle groups of 4 to show the pencils in each box.



Mr. Hannigan needs \_\_\_\_\_ boxes.

$$\underline{\hspace{1cm}} \times 4 = 12$$

$$12 \div 4 = \underline{\hspace{1cm}}$$

2. Mr. Hannigan places 12 pencils into 3 equal groups. Draw to show how many pencils are in each group.

There are \_\_\_\_\_ pencils in each group.

$$3 \times \underline{\hspace{1cm}} = 12$$

$$12 \div 3 = \underline{\hspace{1cm}}$$

3. Use an array to model Problem 1.

a.  $\underline{\hspace{1cm}} \times 4 = 12$

$$12 \div 4 = \underline{\hspace{1cm}}$$

The number in the blanks represents

\_\_\_\_\_.

b.  $3 \times \underline{\hspace{1cm}} = 12$

$$12 \div 3 = \underline{\hspace{1cm}}$$

The number in the blanks represents

\_\_\_\_\_.

4. Judy washes 24 dishes. She then dries and stacks the dishes equally into 4 piles. How many dishes are in each pile?

$24 \div 4 = \underline{\hspace{2cm}}$

$$4 \times \underline{\hspace{2cm}} = 24$$

What is the meaning of the unknown factor and quotient? \_\_\_\_\_

5. Nate solves the equation  $\underline{\hspace{1cm}} \times 5 = 15$  by writing and solving  $15 \div 5 = \underline{\hspace{1cm}}$ . Explain why Nate's method works.

6. The blanks in Problem 5 represent the number of groups. Draw an array to represent the equations.