

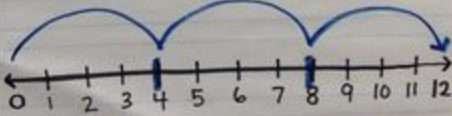


Dear Parents,

We want to make sure that you have an understanding of the mathematics your child will be learning in this chapter: Multiplication Strategies. Please let your teacher know if you have any questions. :) 3rd Grade Teachers

<h2>Array</h2>  $3 \times 4 = 12$ <p>rows with equal amount in each.</p>	<h2>Equal Groups</h2>  $3 \times 4 = 12$ <p>3 groups with 4 in each.</p>
<h2>Repeated Addition</h2> $4 + 4 + 4 = 12$ $3 \times 4 = 12$	<h2>Number Line</h2>  <p>1 hop of 4 = 4 2 hops of 4 = 8 3 hops of 4 = 12 ←</p>

Test Date: \_\_\_\_\_

Additional Resources:

Google Classroom

Ixl

Study island

What is the product of  $5 \times 4$ ?

**Solution**

Multiplying 5 by 4 is the same as adding together 5 groups of 4.

$$\begin{aligned} 5 \times 4 &= 20 \\ 4 + 4 + 4 + 4 + 4 &= 20 \end{aligned}$$

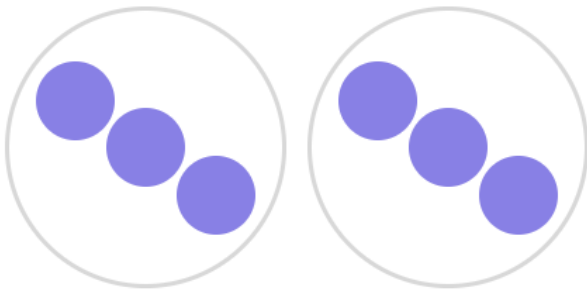
The two grids below each have 32 squares.

$$4 \times 8 = 32 \quad 8 \times 4 = 32$$

The first grid shows four groups of eight squares.  
The first grid represents the number sentence,  $4 \times 8 = 32$ .  
The factors are 4 and 8. The product is 32.

The second grid shows eight groups of four squares.  
The second grid represents the number sentence,  $8 \times 4 = 32$ .  
The factors are 8 and 4. The product is 32.

Fill in the blanks to describe the model.



There are  groups of dots.

There are  dots in each group.

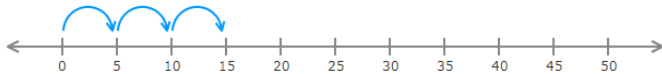
Which expression describes this array?



$$2 \times 2$$

$$2 \times 1$$

Complete the multiplication sentence that describes the model.



$$3 \times \square = 15$$