

# Multiplication - Planting Vegetables

Fawna Fox and Rocky Raccoon were planting carrots. "We need to plant our carrots in rows so we can weed around them," said Rocky. "Let's plant 3 rows with 4 carrots in each row."

"How many carrots did we plant?" asked Fawna. "I'm going to add them up to find out the total. 3 plus 3 is 6, plus 3 more..."

"Wait!" said Rocky. "I know a quick way of adding. It's called multiplication. All you do is count how many rows, 3, and how many in each row, 4, and multiply. When you multiply 3 by 4 you get 12. We have a total of 12 carrots."

"That is a fast way of adding, Rocky," said Fawna Fox. "Multiplication is adding the same number many times. Teach me to multiply!"



## Warm Up

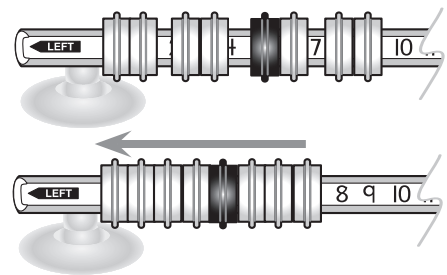
Multiply by building the groups on the MathLine and adding together.

$$4 \times 2 = \underline{\quad\quad\quad} \text{ or } 4 \text{ groups of } 2$$

Arrange 4 groups of 2 rings each on the MathLine.

Add the rings together by sliding all to the left.

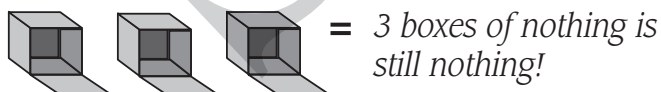
Read the answer.  $4 \times 2 = \underline{8}$



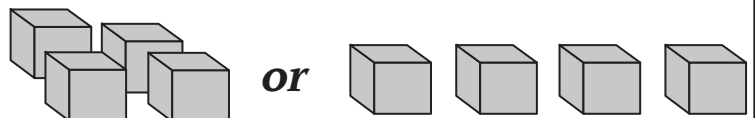
Multiplication is repetitive addition because we **repeat the addition**.

$$2 + 2 + 2 + 2 = 8 \quad \text{is the same as} \quad 2 \times 4 = 8$$

Rule: Any number times **0** always equals **0**  
 $0 \times 3 = 0$  because 0 groups of 3 is nothing.  
 $3 \times 0 = 0$  because 3 groups of nothing is nothing.



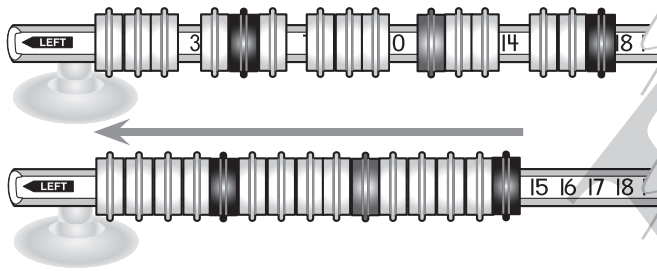
Rule: Any number times **1** always equals **itself**.  
 $1 \times 4 = 4$  because 1 group of itself is the same group  
 $4 \times 1 = 4$  because 4 groups of 1 each are just 4



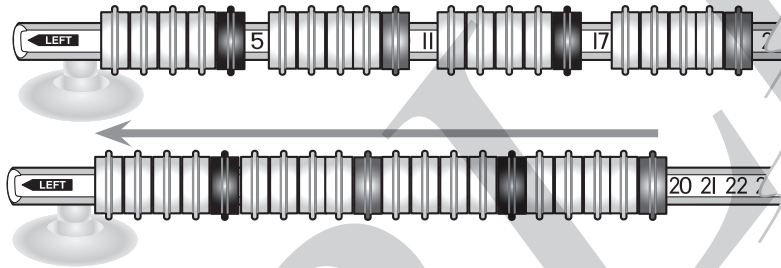
# Activities

Multiply on the MathLine.

**a**  $5 \times 3 =$  \_\_\_\_\_



**b**  $4 \times 5 =$  \_\_\_\_\_



**c** Find the totals by multiplying on the MathLine.

$1 \times 3 =$  \_\_\_\_\_

$2 \times 3 =$  \_\_\_\_\_

$6 \times 3 =$  \_\_\_\_\_

$2 \times 4 =$  \_\_\_\_\_

$4 \times 3 =$  \_\_\_\_\_

$1 \times 6 =$  \_\_\_\_\_

$3 \times 3 =$  \_\_\_\_\_

$5 \times 2 =$  \_\_\_\_\_

$4 \times 2 =$  \_\_\_\_\_

$6 \times 2 =$  \_\_\_\_\_

$4 \times 4 =$  \_\_\_\_\_

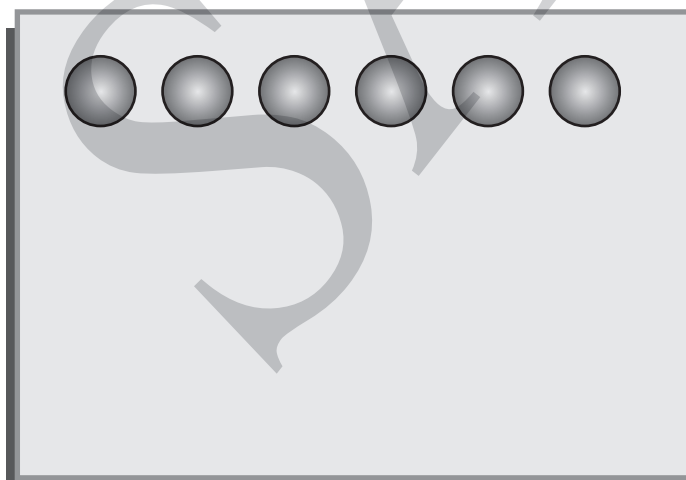
$5 \times 1 =$  \_\_\_\_\_

# Challenge

**a** Return to the story at the beginning of the lesson. Write the number sentence to show how many carrots were planted in each row.

\_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

**b** Fawna was baking cookies. She placed cookie dough on the pan in 4 rows with 6 cookies per row. Draw Fawna's cookies on the pan. Write the number sentence.



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\_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_