

## 3.4(E)

represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting

**INTERVENE**

<1 min

# Fluency Practice

What is  $3 + 3 + 3 + 3 + 3 + 3 = ?$

Is there a faster way to solve this (hint: x)

Represent this expression with a picture below:

# Problem Solving Strategies

## **Step 1: Show what you know**

- If there's a vocabulary word you know, write or draw something to show you know it.
- ex) perimeter (add all sides, goes around, etc)

## **Step 2: Solve and Check**

- Add to check your subtraction, etc

## **Step 3: Eliminate and Justify**

- Don't just cross answers out and pick your favorite choice.
- SHOW why a choice is wrong.

<3 min

# Problem Solving Lesson

*if you find an issue with fluency, go straight to the fluency sections of lesson*

- Ask 2 questions to know which operation to choose:
  - Am I looking for a bigger number?
  - Are there groups?

	<b>Getting Bigger (in all, total, combined)</b>	<b>Getting Smaller (how many more, difference)</b>
<b>Groups (each, an, every, per)</b>	Multiply (x)	Divide ( / )
<b>No Groups</b>	Add (+)	Subtract ( - )

# Groups

- Joe has 3 marbles in each container.
- He has 5 containers.



$$3 \times 5 = 15$$

# Skip Counting

Fill in the blanks

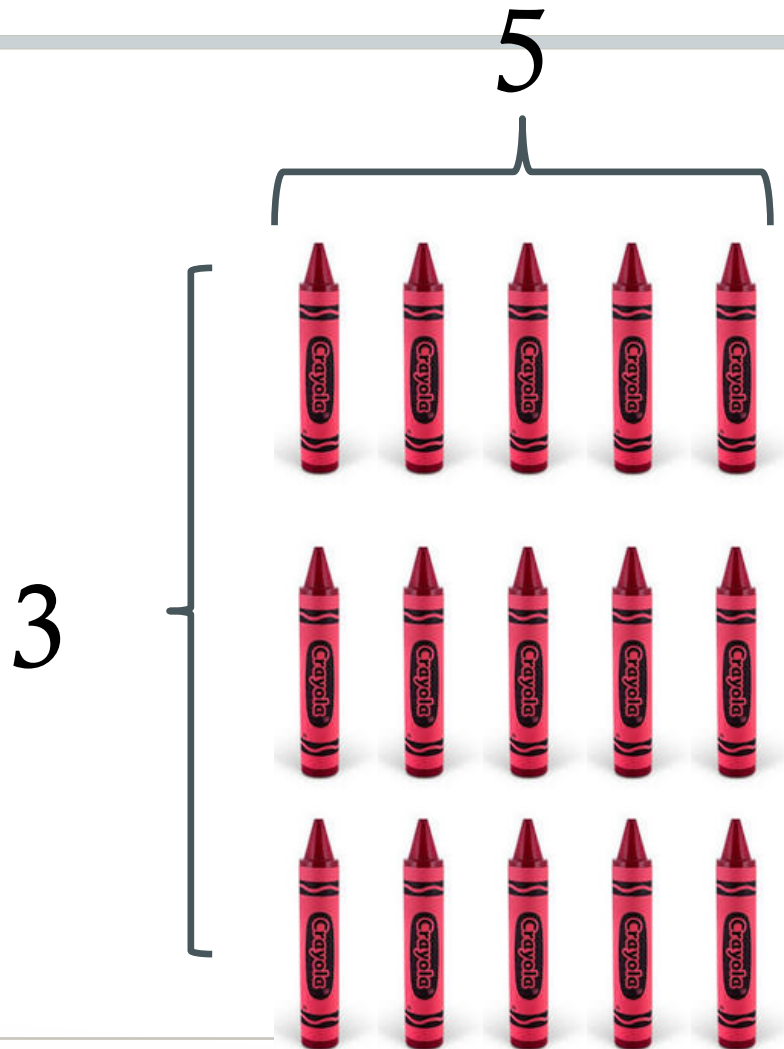
$$3 \times 5 =$$

3, 6, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

$$5 \times 3 =$$

5, \_\_\_\_\_, \_\_\_\_\_

# Arrays

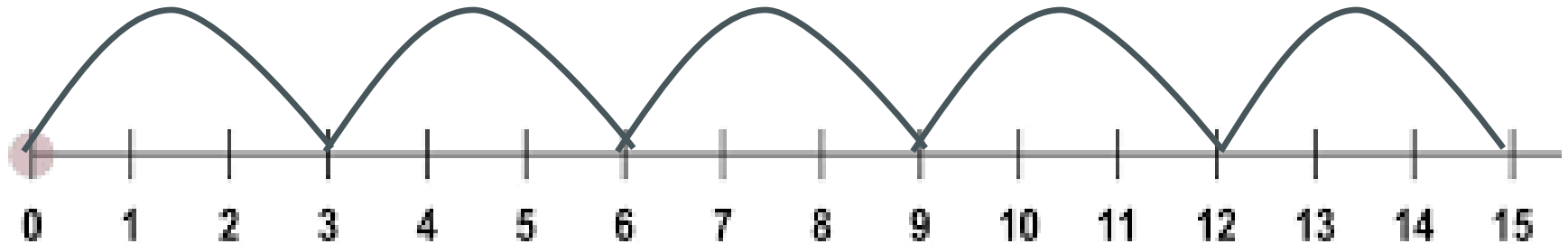


$$5 \times 3 = 15$$

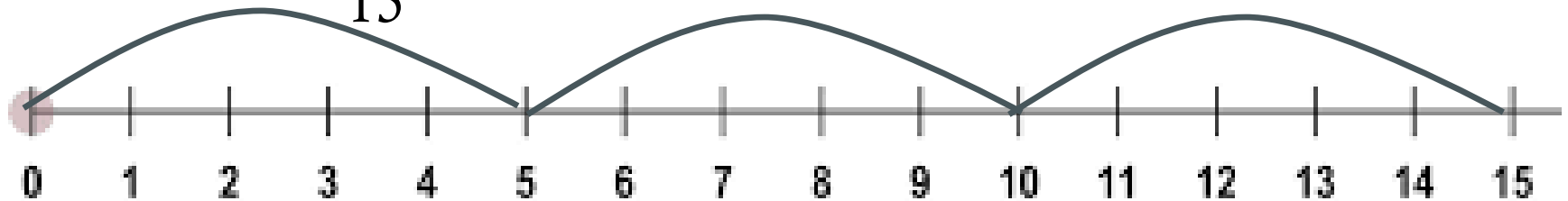
You can just rotate  
it to make  $3 \times 5$

# Number Lines

5 groups of 3 units each makes  $5 \times 3 = 15$



3 groups of 5 units each makes  $3 \times 5 = 15$



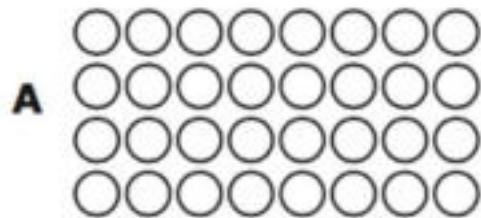


# I Do

Zachary lists some different methods he thinks he can use to solve the multiplication problem shown.

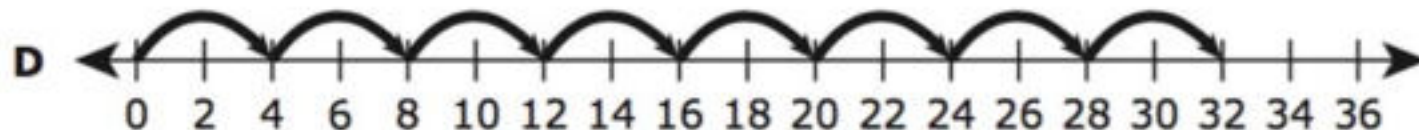
$$8 \times 4 = ?$$

Which of these is **not** a method Zachary can use to get the correct answer?



**B**  $8 \times 8 \times 8 \times 8$

**C** 4, 8, 12, 16, 20, 24, 28, 32



# We Do – Student 1

Janie collected 10 sea stars at the beach. Each sea star had 5 arms, as shown below.

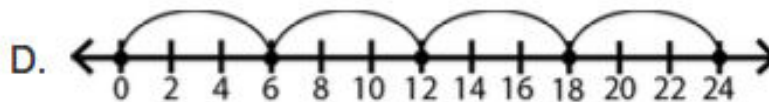
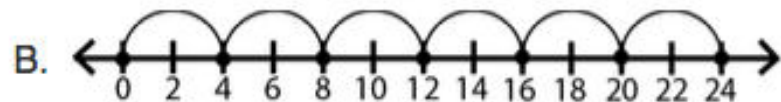
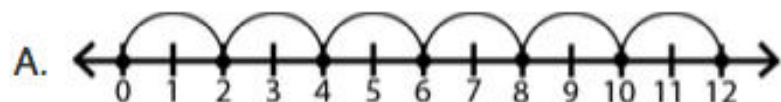


Which expression can be used to find the total number of arms on 10 sea stars?

- A**  $10 \div 5$
- B**  $10 - 5$
- C**  $10 + 5$
- D**  $10 \times 5$

# We do - Student 2

Estefany bought a bag of chips once every 6 days. If she bought 4 bags of chips, which of the following number lines best represents the days that she bought chips?



# We do - Student 3

A house with 6 windows is shown below.



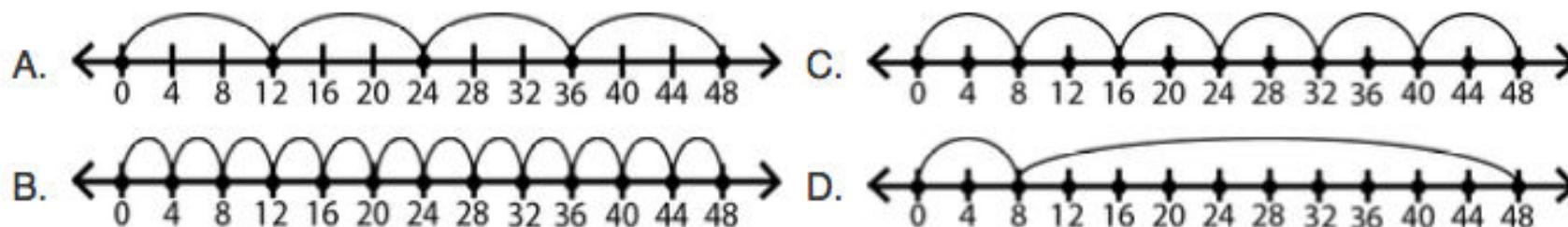
Which of the following expressions best represents the number of windows in 4 houses?

- A.  $6 \times 4$
- B.  $4 + 4 + 4 + 4 + 4$
- C.  $6 + 4$
- D.  $6 + 6 + 6$

5 min

# We do – Student 4

Jose played soccer for 4 hours each day. He played soccer for 12 days. Which number line best represents the total number of hours Jose played soccer?



An array of staplers is shown below.



Which number sentence best represents the array?

- A.  $4 \times 6 = 28$
- B.  $4 \times 7 = 28$
- C.  $4 \times 8 = 32$
- D.  $4 + 7 = 28$

We do –  
Student 5

# Debrief

- Ask 2 questions to know which operation to choose:
  - Am I looking for a bigger number?
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# You Do

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Go back to Intervene for your quiz!