GRADE 3 VOLUME 1

enVision® Mathematics

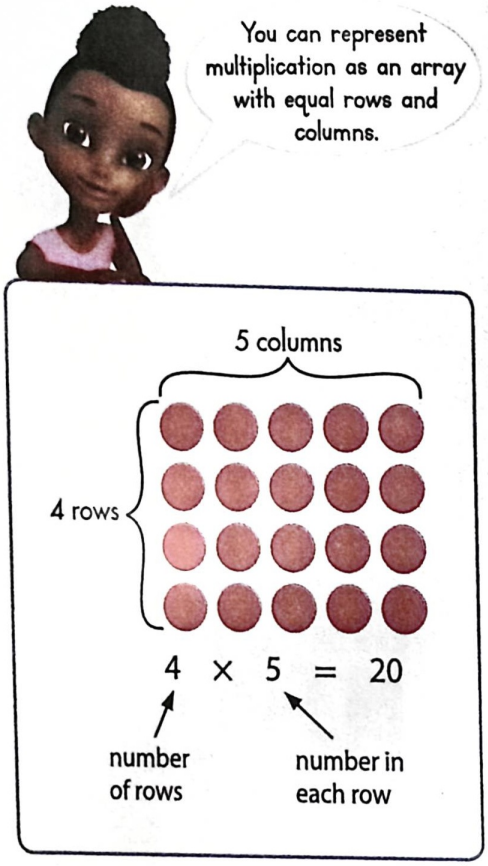
SAVVAS


Hi, we're here to help you.
Let's have a great year!
I'm Jackson.
I'm Zeke.
I'm Emily.
I'm Alex.
I'm Daniel.
I'm Jada.
I'm Carlos.
I'm Marta.

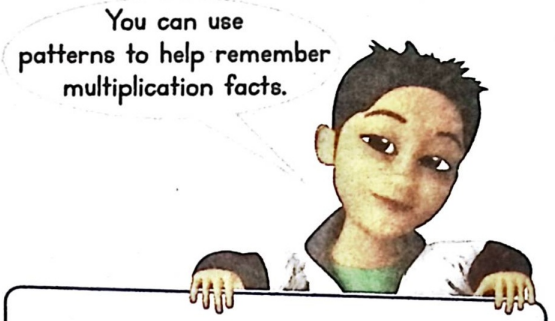
Contents

Digital Resources at SavvasRealize.com

TOPICS



TOPIC 1 Understand Multiplication and Division of Whole Numbers



DATA

9s Facts

$0 \times 9 = 0$

$1 \times 9 = 9$

$2 \times 9 = 18$

$3 \times 9 = 27$

$4 \times 9 = 36$

$5 \times 9 = 45$

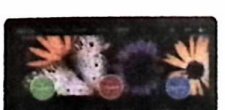
$6 \times 9 = 54$

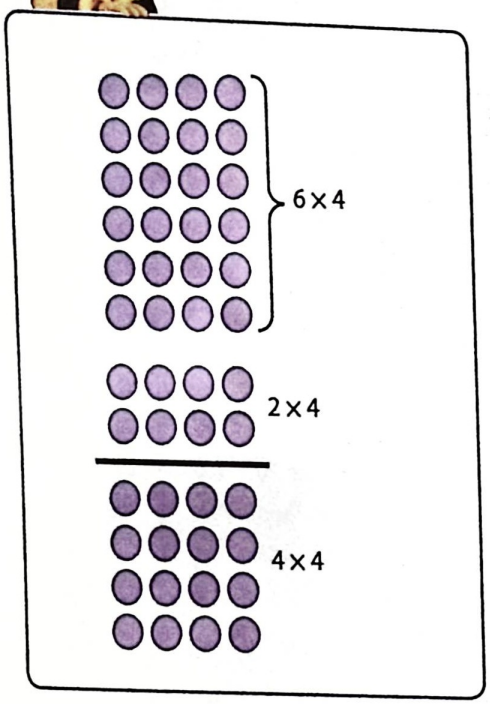
$7 \times 9 =$

$8 \times 9 =$

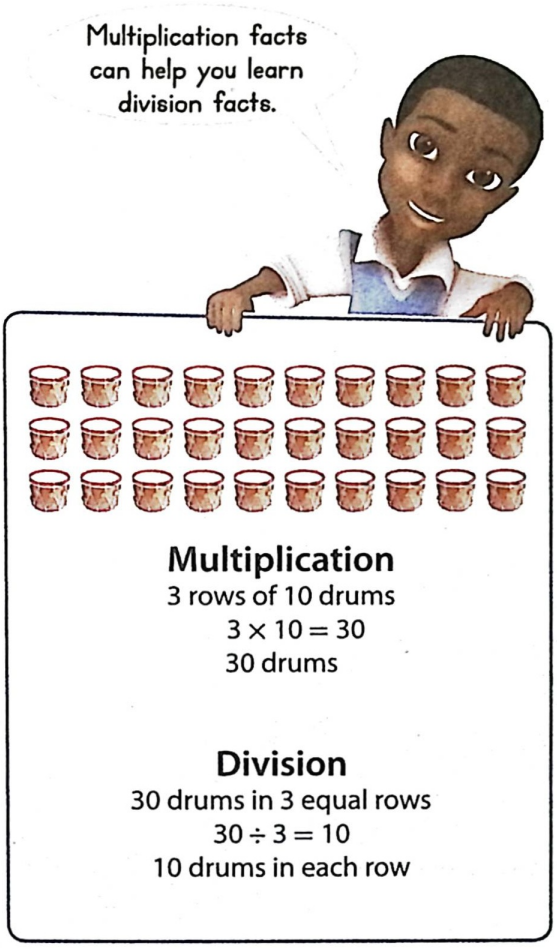
$9 \times 9 =$

TOPIC 2 Multiplication Facts: Use Patterns

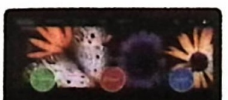
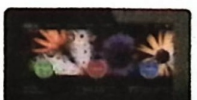




TOPIC 3 Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8



TOPIC 4 Use Multiplication to Divide: Division Facts

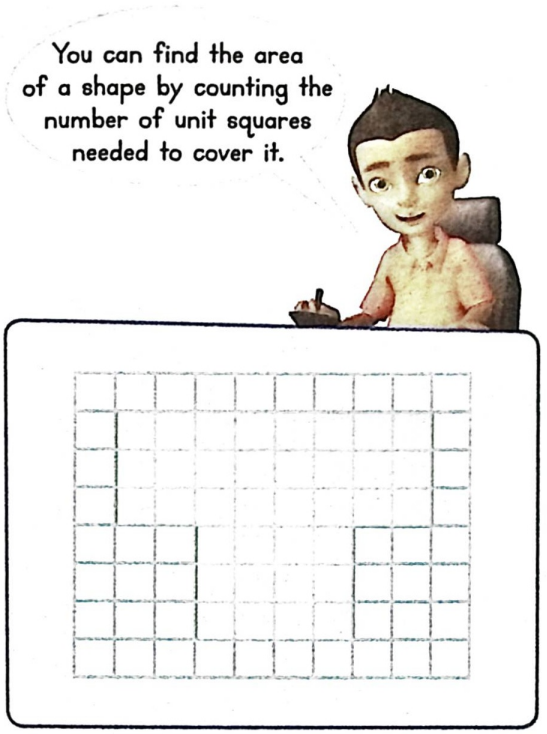



You can use a multiplication table to find missing factors.

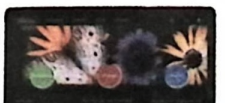
$3 \times 5 = 15$ $15 \div 3 = 5$

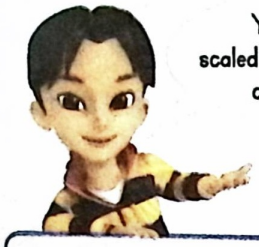
×	0	1	2	3	4	5
0	0	0	0	0	0	0
1	0	1	2	3	4	5
2	0	2	4	6	8	10
3	0	3	6	9	12	15

TOPIC 5 Fluently Multiply and Divide within 100

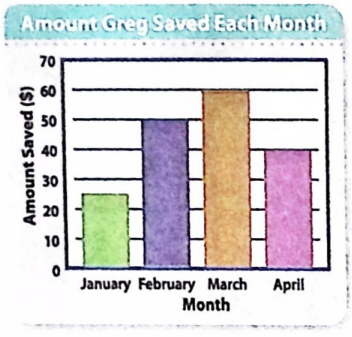


TOPIC 6 Connect Area to Multiplication and Addition



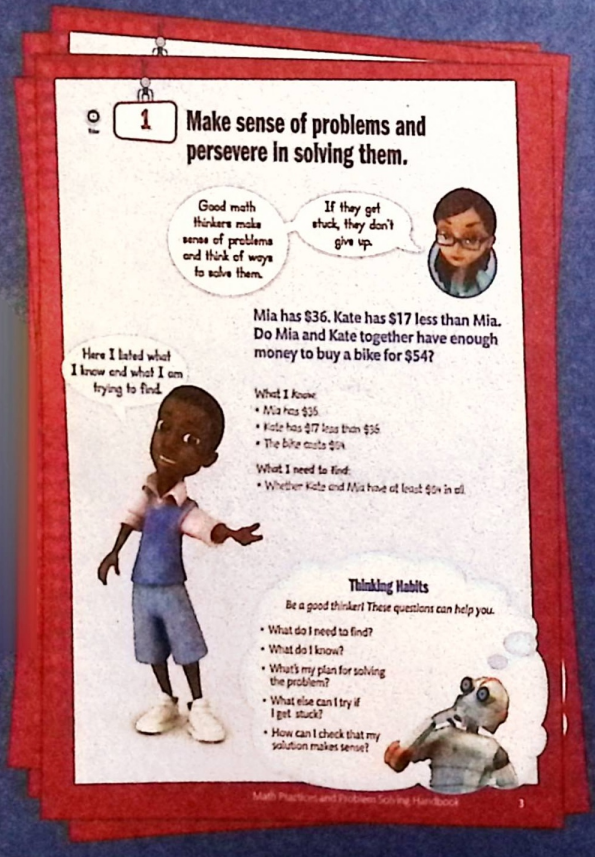
You can use a scaled bar graph to help compare data.



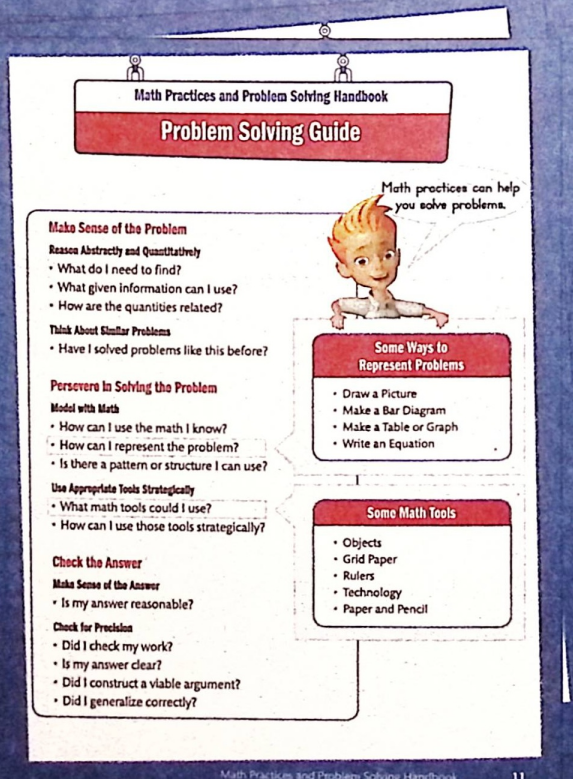
TOPIC 7 Represent and Interpret Data

Math Practices and Problem Solving Handbook

The **Math Practices and Problem Solving Handbook** is available at SavvasRealize.com.



Math Practices



Problem Solving Guide
Problem Solving Recording Sheet
Bar Diagrams

TOPIC 1

Understand Multiplication and Division of Whole Numbers

Essential Question: How can thinking about equal groups help you understand the connection between multiplication and division?

Digital Resources

Interactive Student Edition · Activity · Visual Learning · Video · Practice · Assessment · Games · Tools · Glossary

enVision STEM Project: Forming Groups

Do Research Many types of animals form groups. Use the Internet or other sources to discover which animals form groups. Why do they do this? What are the benefits for these animals of being in a group?

Journal: Write a Report Include what you found. Also in your report:

- Draw representations of animals in equal groups. Give a reason why those animals formed groups.
- Use a multiplication equation to show the total number of animals. Use a division equation to show the number of animals in each group.

Name _____

Review What You Know

Vocabulary

Choose the best term from the box.
Write it on the blank.

- add
- subtract
- skip count
- ones

1. If you combine different sized groups to find how many in all, you _____.

2. _____ are groups of single objects.

3. When you say the numbers 5, 10, 15, 20, you _____.

Adding

Find each sum.

4. $5+5+5=?$

5. $7+7=?$

6. $3+3+3=?$

7. $2+2+2+2=?$

8. $6+6+6=?$

9. $9+9+9=?$

Subtracting

Find each difference.

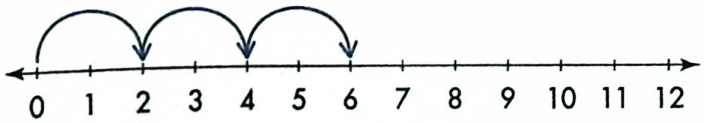
10. $21-7=?$
$14-7=?$
$7-7=?$

11. $15-5=?$
$10-5=?$
$5-5=?$

12. $27-9=?$
$18-9=?$
$9-9=?$

Skip Counting on the Number Line

13. If you continue skip counting using the same pattern, what will be the next number?



Ⓐ 8

Ⓑ 10

Ⓒ 12

Ⓓ 14

Name _____

Pick a Project

PROJECT 1A

What is the tallest building in Florida?

Project: Construct a Tall Building

PROJECT 1B

Would you like to travel to another planet?

Project: Build a Space Probe

PROJECT 1C

What are some places where you would like to live?

Project: Draw a Neighborhood

3-ACT MATH PREVIEW

Math Modeling

What's the Point?

Video

Before watching the video, think:

I do a lot of my writing on a laptop or a tablet. When do you prefer to use a pencil? How about crayons, pens, and colored pencils? You probably own plenty of different writing tools. You can even find some interesting ways to use them.

I can ...

model with math to solve a problem that involves computing with whole numbers.

Name _____ Activity

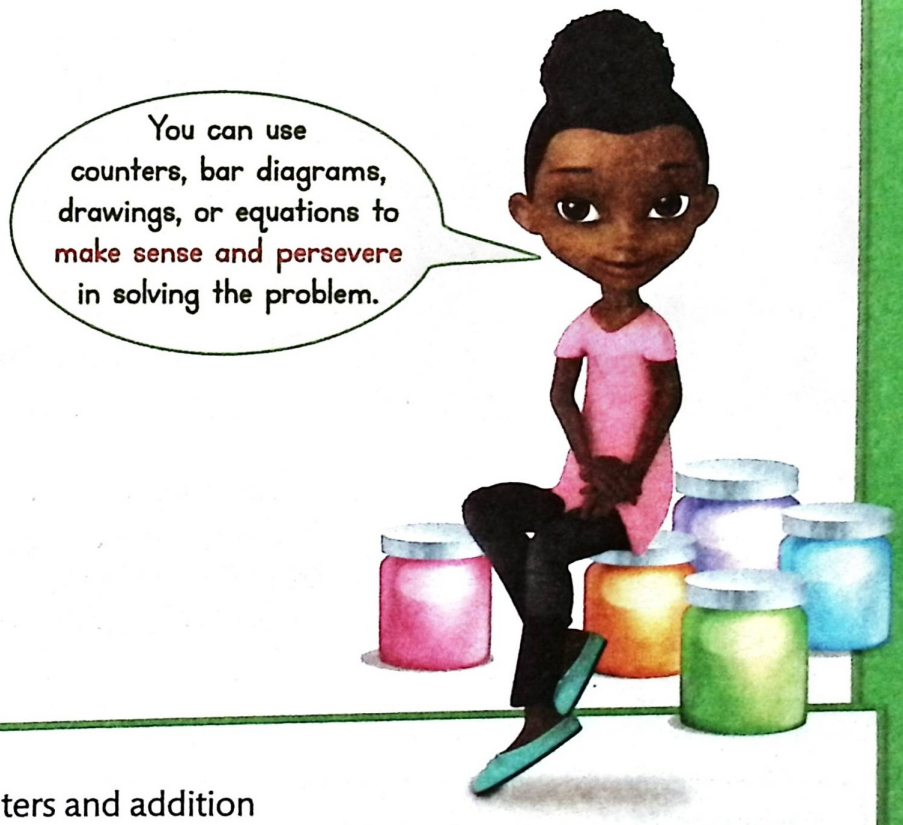
Lesson 1-1
Relate Multiplication and Addition

I can ...
use addition or multiplication to join equal groups.

I can also make sense of problems.

Solve & Share

Ms. Witt bought 4 boxes of paint with 5 jars of paint in each box. Ms. Karp bought 3 boxes of paint with 6 jars in each box. Who bought more jars of paint? How many more?



Look Back! How can you use counters and addition equations to help solve the problems?

Essential Question

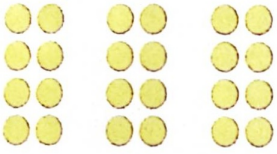
How Can You Find the Total Number of Objects in Equal Groups?

A

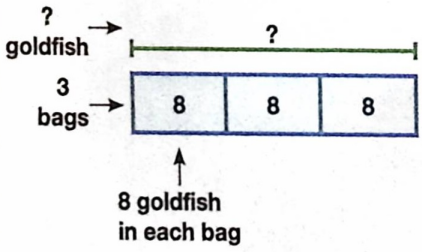
Jessie used 3 bags to bring home the goldfish she won at the Fun Fair. She put the same number of goldfish in each bag. How many goldfish did she win?

B

The counters show 3 groups of 8 goldfish.



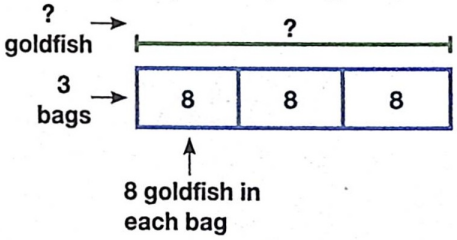
You can use addition to join equal groups.



$8 + 8 + 8 = 24$

C

Multiplication is an operation that gives the total number when you join equal groups.



3 times 8 equals 24

$3 \times 8 = 24$

factor factor product

Factors are the numbers that are being multiplied. The product is the answer to a multiplication problem.

D

You can write equations.

An unknown is a symbol that stands for a number in an equation.

Addition equation:

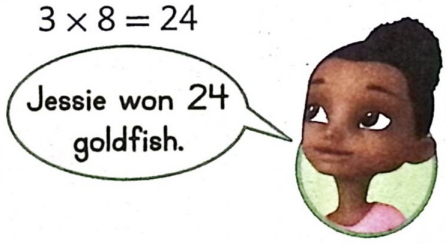
$8 + 8 + 8 = ?$

$8 + 8 + 8 = 24$

Multiplication equation:

$3 \times 8 = ?$

$3 \times 8 = 24$



Convince Me! **Model with Math** Suppose Jessie won 5 bags of 8 goldfish. Use math you know to represent the problem and find the number of goldfish Jessie won.

Name _____

Practice Tools Assessment

Guided Practice

Do You Understand?

1. Can you write $5 + 5 + 5 + 5 = 20$ as a multiplication equation? Explain.

2. Can you write $3 + 4 + 7 = 14$ as a multiplication equation? Explain.

3. Jessie buys 4 packages of stones. There are 6 stones in each package. How many stones does Jessie buy?

   Use counters to represent the problem. Then write an addition equation and a multiplication equation to solve.

Do You Know How?

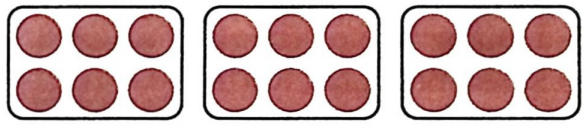
Complete **4** and **5**. Use the pictures to help.

4. 

   2 groups of ____

   $4 + 4 =$ ____

   $2 \times$ ____ = ____

5. 

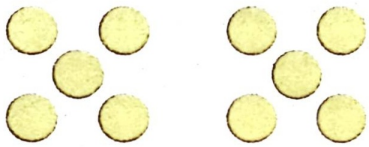
   ____ groups of 6

   $6 +$ ____ + ____ = ____

   $3 \times$ ____ = ____

Independent Practice

Leveled Practice Complete **6** and **7**. Use the pictures to help.

6. 

   2 groups of ____

   $5 +$ ____ = ____

   $2 \times$ ____ = ____

7. 

   5 groups of ____

   $4 + 4 + 4 +$ ____ + ____ = ____

   $5 \times$ ____ = ____

In **8–11**, complete each equation. Use counters or draw a picture to help.

8. $8 + 8 + 8 + 8 = 4 \times$ ____

9. ____ + ____ + ____ $= 3 \times 7$

10. $9 +$ ____ + ____ $= 3 \times$ ____

11. $6 + 6 + 6 + 6 + 6 =$ ____ $\times$ ____

Problem Solving

12. Debra draws this shape on the back of her notebook.

What is the name of the shape Debra draws? How do you know?

13. Model with Math Salvatore gets 50 trading cards for his birthday. He gives 22 cards to Madison, and Madison gives 18 cards to Salvatore. Then Salvatore's sister gives him 14 cards. How many trading cards does Salvatore have now? Use math to represent the problem.

14. Higher Order Thinking Luke says you can always add and you can always multiply to join groups. Is he correct? Explain why or why not.

15. Lois says any addition equation where the addends are all the same can be written as a multiplication equation. Is Lois correct? Explain why or why not.

Assessment Practice

16. Tom has 12 ears of field corn to make table decorations. He arranges them in equal groups. Which sentences could Tom use to describe his groups? Select all that are correct.

- ☐ Tom arranged 2 groups of 4 ears.
- ☐ Tom arranged 4 groups of 2 ears.
- ☐ Tom arranged 6 groups of 2 ears.
- ☐ Tom arranged 3 groups of 4 ears.
- ☐ Tom arranged 1 group of 10 ears.

17. Jenna has 24 flowers. She arranges them in vases with an equal number of flowers in each vase. Which sentences could Jenna use to describe her flowers? Select all that are correct.

- ☐ Jenna arranged 4 flowers in each of 6 vases.
- ☐ Jenna arranged 3 flowers in each of 9 vases.
- ☐ Jenna arranged 5 flowers in each of 5 vases.
- ☐ Jenna arranged 6 flowers in each of 3 vases.
- ☐ Jenna arranged 8 flowers in each of 3 vases.

Name _____ Activity

Lesson 1-2
Multiplication on the Number Line

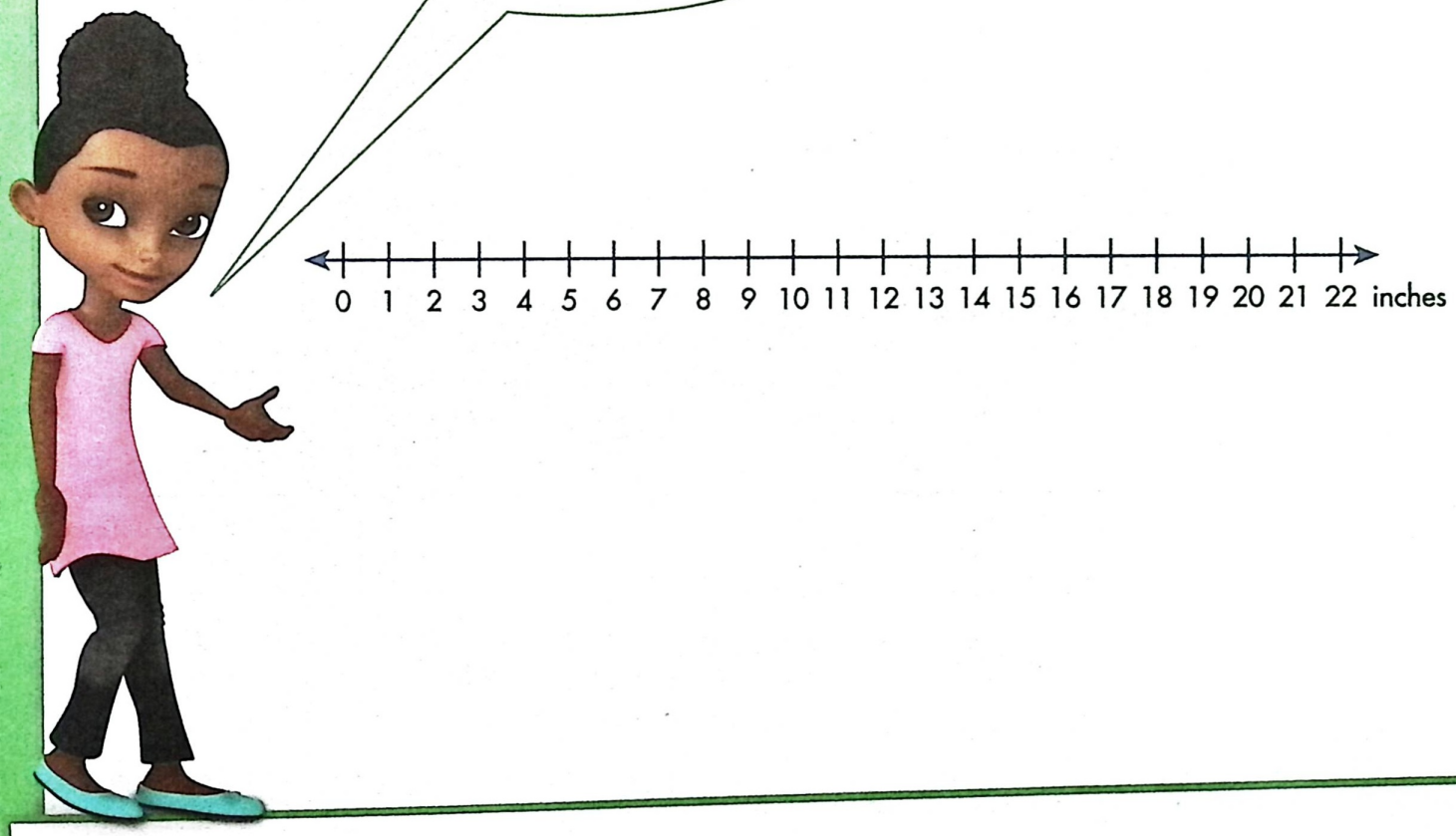
I can ...
use a number line to represent and solve multiplication facts.

I can also model with math.

Solve & Share

Harvey the Hop Toad starts at 0 and jumps 7 times in the same direction. Each time he jumps 3 inches farther. How can you show how far Harvey goes on a number line?

Model with math.
A number line can be used to record and count equal groups.



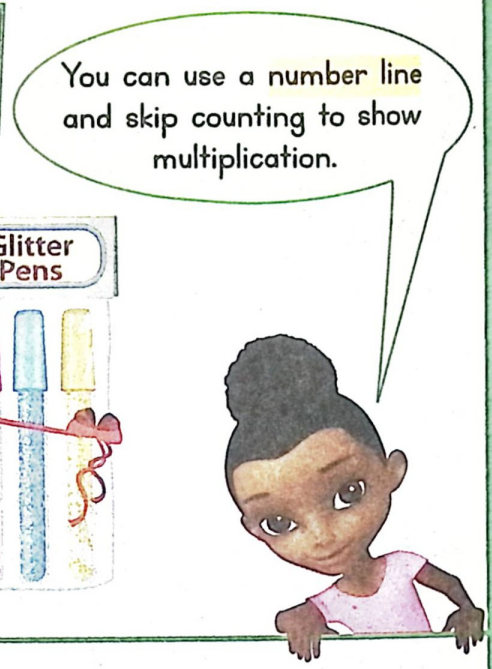
Look Back! How are Harvey's jumps on the number line like repeated addition? How are they like skip counting?

Essential Question

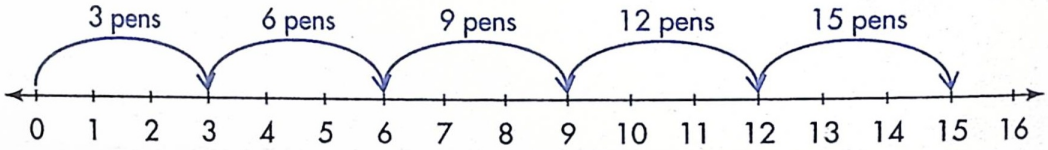
How Can You Use a Number Line to Show Multiplication?

A

Clara is making gift bags for her 5 friends. She wants to put 3 glitter pens in each gift bag. How many glitter pens does Clara need?



B



Skip counting: 3, 6, 9, 12, 15

Multiplication: $5 \times 3 = 15$

Clara needs 15 glitter pens.

Convince Me! **Reasoning** What would skip counting by 6 look like on the number line?

Name _____

Guided Practice

Do You Understand?

1. On the previous page, why do you skip count by 3s on the number line?

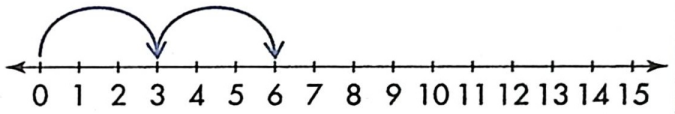
2. On the previous page, why do you make five jumps on the number line?

3. How would the jumps on the number line look different if there were 4 pens in each gift bag?

Do You Know How?

In **4**, complete the arrows on the number line to show the jumps and fill in the blanks.

4. Jim ran 3 miles a day for 4 days in a row. How many miles did he run?



Number of jumps: ____

I skip counted by ____.

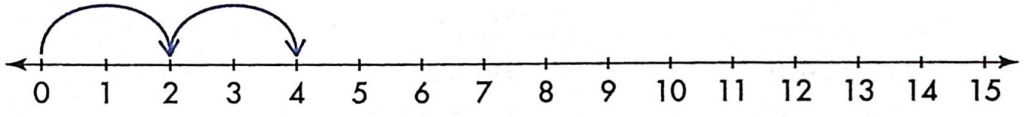
Jim ran ____ miles.

____ × ____ = ____

Independent Practice

In **5**, show how you found the solution using the number line.

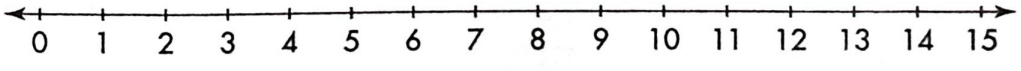
5. Judy has 6 fruit baskets. She wants to put 2 apples into each basket. How many apples will she need? Draw the remaining jumps on the number line with arrows to show how many apples Judy will need.



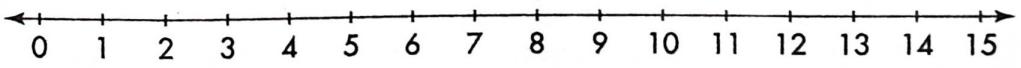
Judy will need ____ apples.

In **6** and **7**, show the multiplication fact with arrows on the number line. Write the product.

6. $7 \times 2 =$ ____



7. $3 \times 3 =$ ____



Name _____

Activity

Lesson 1-3
Arrays and Properties

I can ...
use arrays and multiply factors in any order to solve multiplication problems.

I can also choose and use a math tool to help solve problems.

Solve & Share

Mark has 12 sports cards. He arranges the cards with an equal number in each row. Find ways Mark can arrange his cards.

Number of Rows of Cards	Number of Cards in Each Row	Total Number of Cards

Look Back! What do you notice about the number of rows of cards, the number of cards in each row, and the total number of cards? Explain.