Eureka Math

3rd Grade
Module 5
Lesson 27

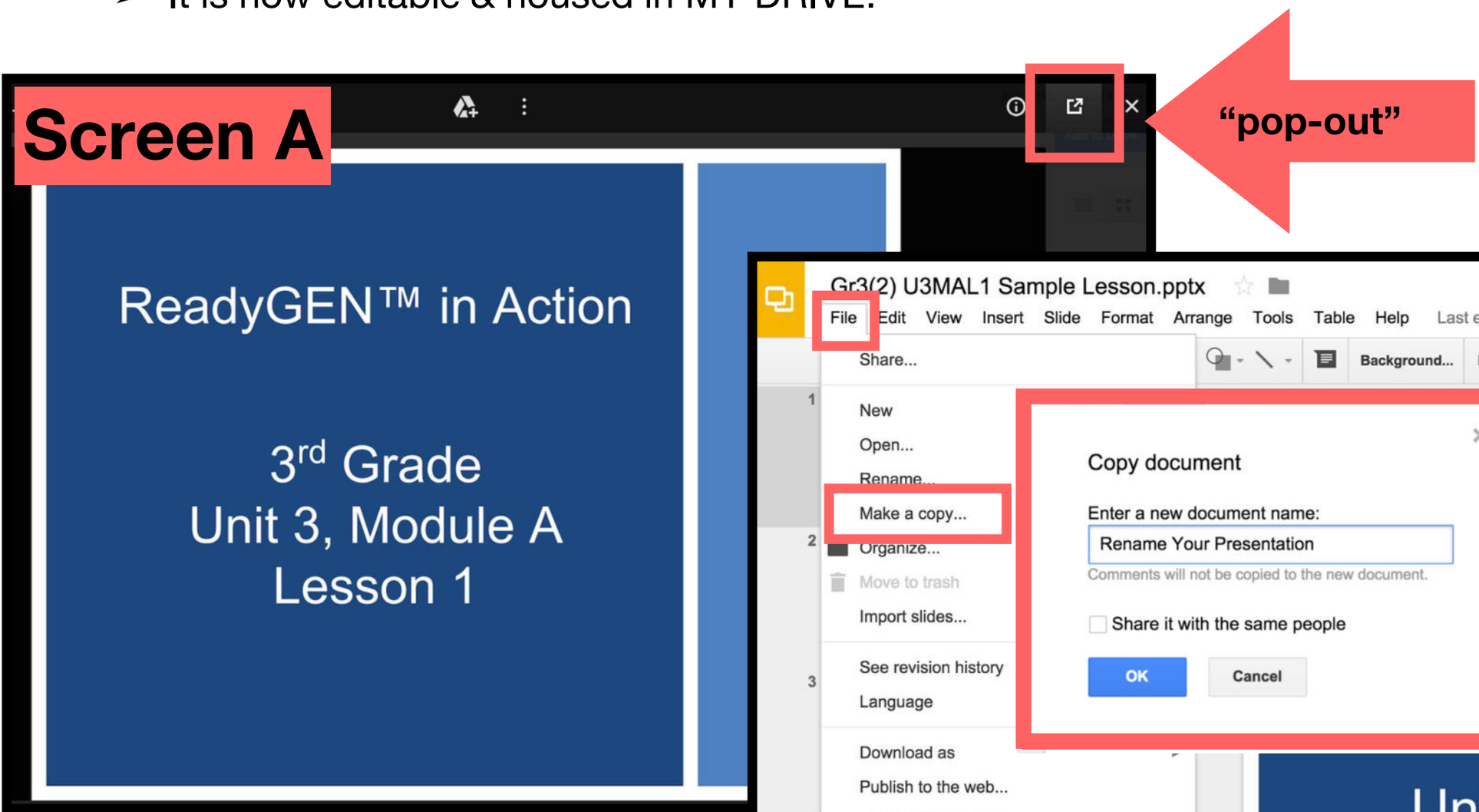
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

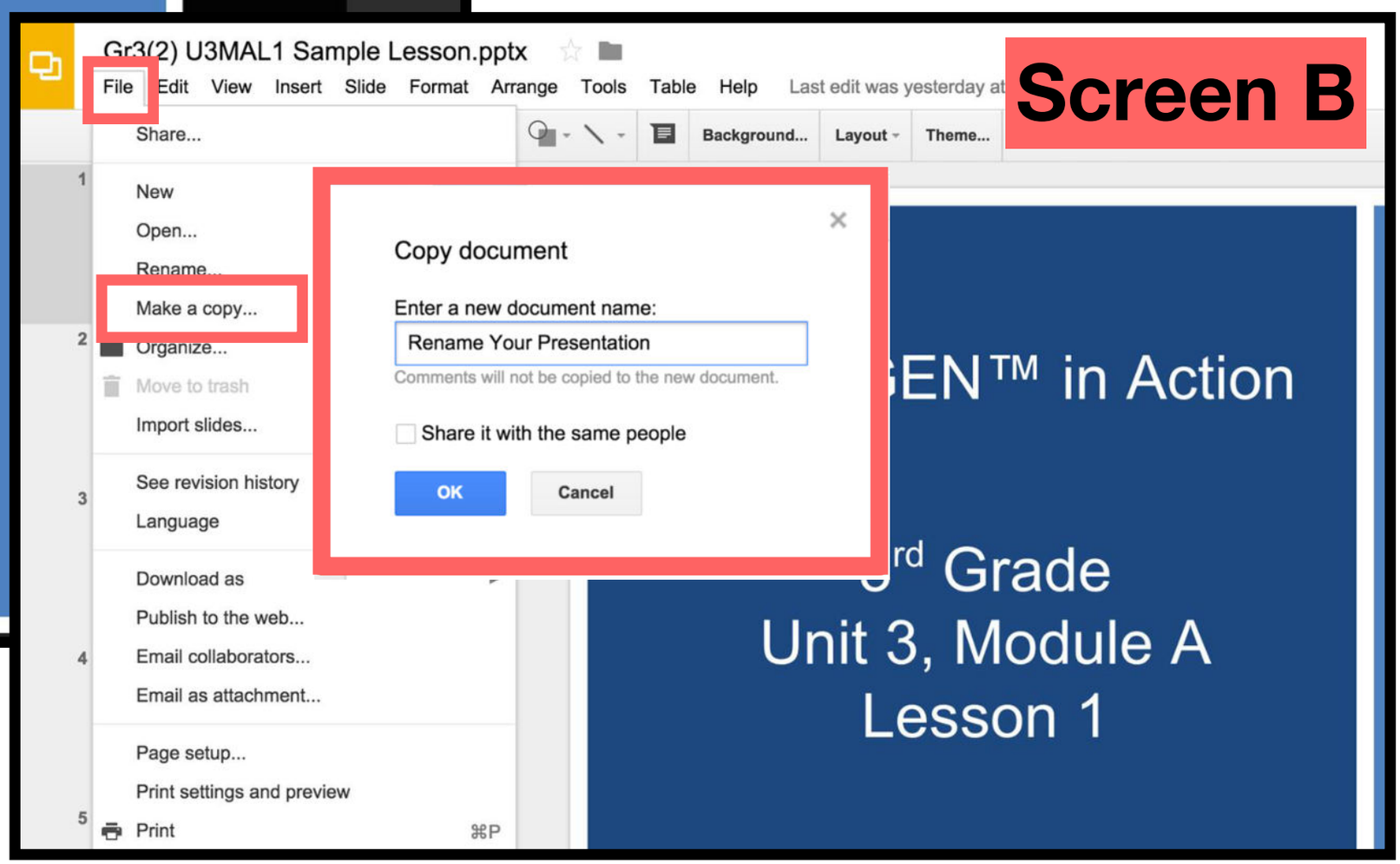
Directions for customizing presentations are available on the next slide.

Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

- When the Google Slides presentation is opened, it will look like Screen A.
- Click on the “pop-out” button in the upper right hand corner to change the view.
- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
- Google Slides will open your renamed presentation.
- It is now editable & housed in MY DRIVE.





Icons

Read, Draw, Write

Learning Target

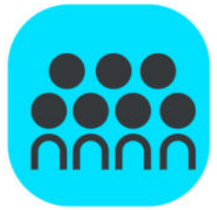
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

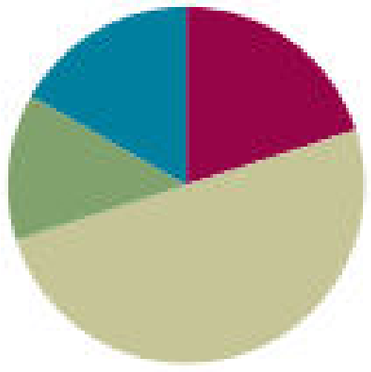
Small Group Time

Lesson 27

Objective: Explain equivalence by manipulating units and reasoning about their size.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(8 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (12 minutes)

- Sprint: Subtract by Seven **2.NBT.5** (8 minutes)
- Recognize the Fraction **3.G.2** (4 minutes)

I can explain equivalent fractions.

Fluency Practice

Sprint: Subtract by Seven

A

Number Correct: _____

Subtract by Seven

1.	17 – 7 =	
2.	7 – 7 =	
3.	27 – 7 =	
4.	8 – 7 =	
5.	18 – 7 =	
6.	38 – 7 =	
7.	9 – 7 =	
8.	19 – 7 =	
9.	49 – 7 =	
10.	10 – 7 =	

23.	24 – 7 =	
24.	34 – 7 =	
25.	64 – 7 =	
26.	84 – 7 =	
27.	15 – 7 =	
28.	25 – 7 =	
29.	35 – 7 =	
30.	75 – 7 =	
31.	55 – 7 =	
32.	16 – 7 =	

Fluency Practice

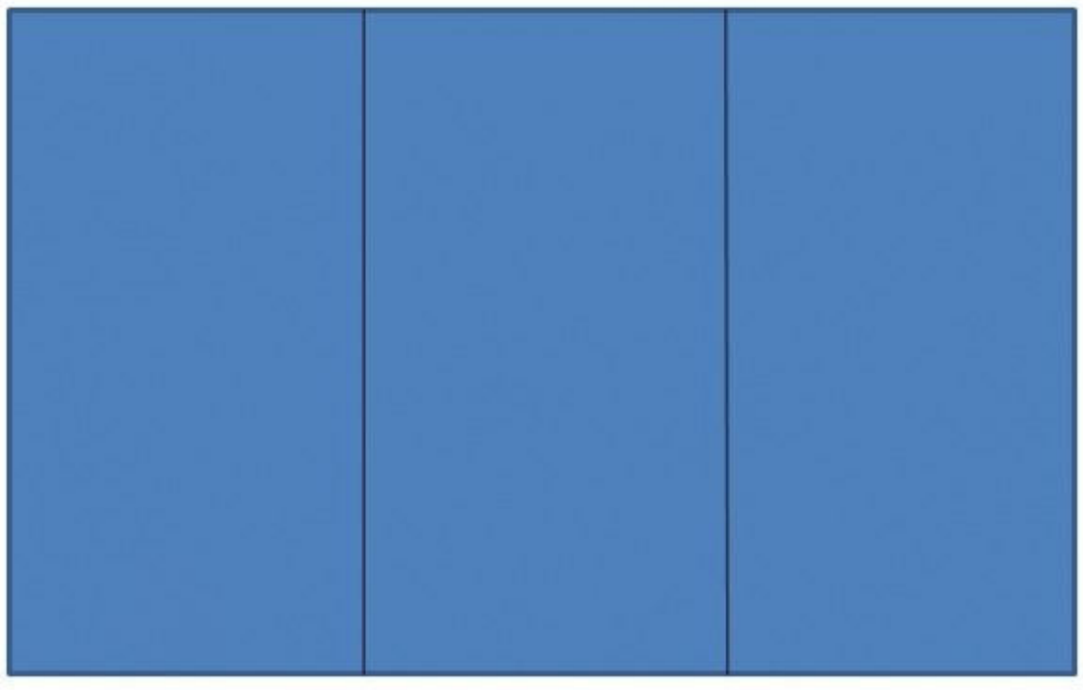
Recognize the Fraction

This equals 1 whole.

Fluency Practice

Recognize the Fraction

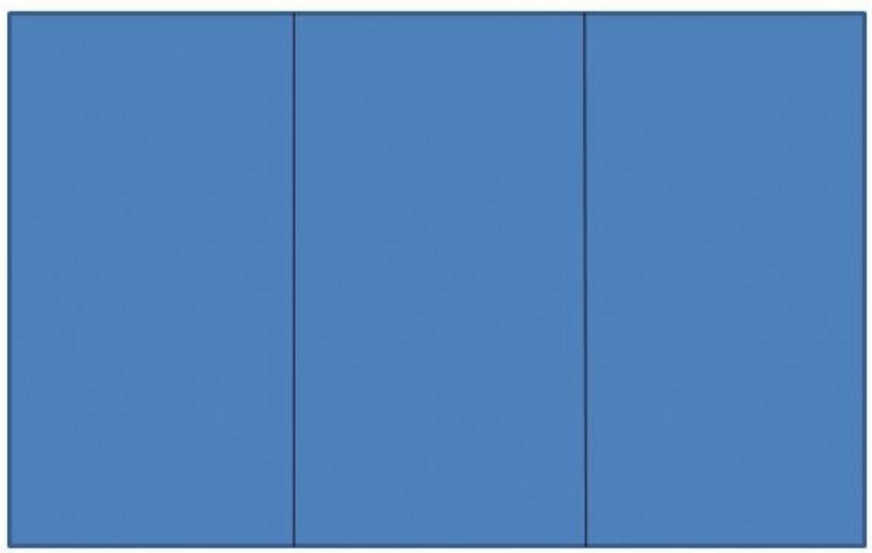
Write the fraction.

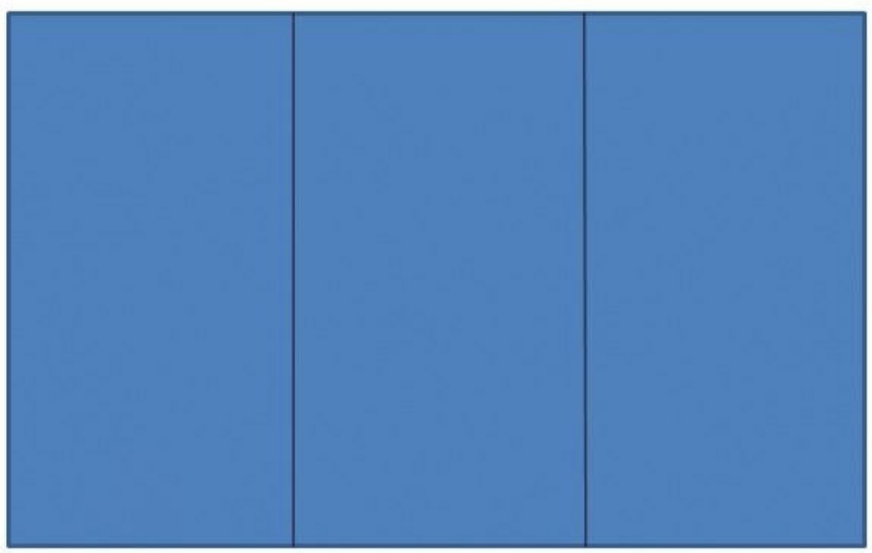


Fluency Practice

Recognize the Fraction

Write the fraction.

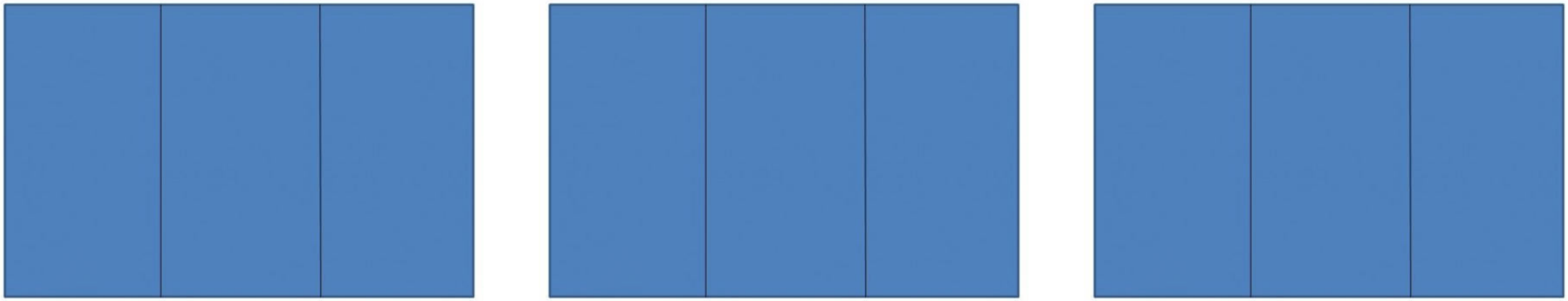




Fluency Practice

Recognize the Fraction

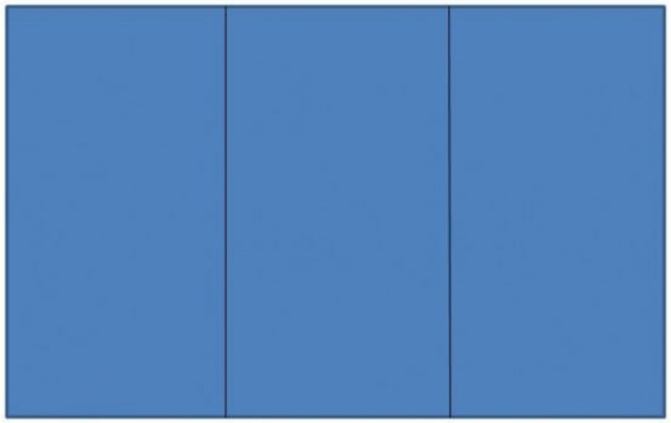
Write the fraction.

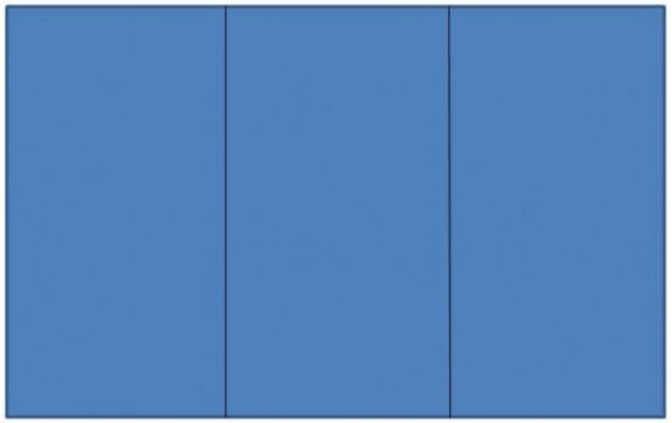


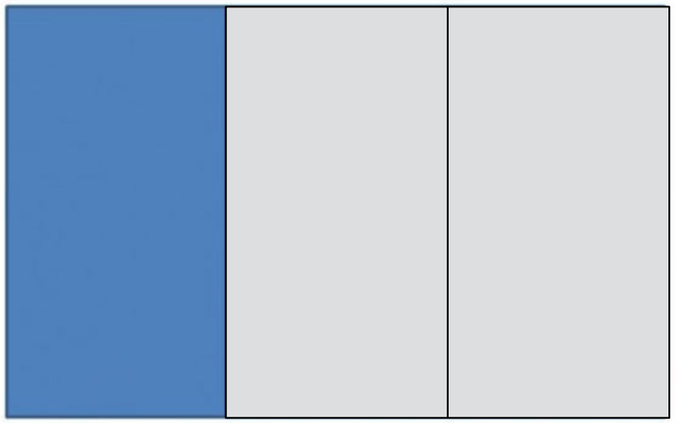
Fluency Practice

Recognize the Fraction

Write the fraction.







Application Problem

The branch of a tree is 2 meters long. Monica chops the branch for firewood. She cuts pieces that are ⅙ meter long. Draw a number line to show the total length of the branch. Parititon and label each of Monica's cuts.

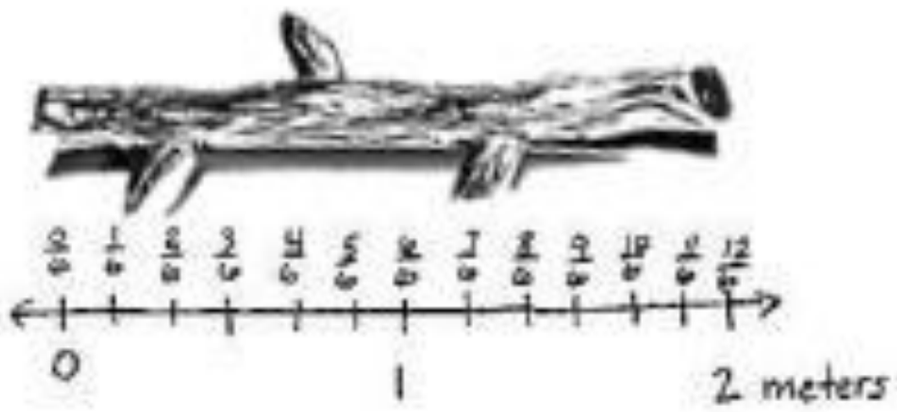
a. **How many pieces does Monica have altogether?**
b. **Write 2 equivalent fractions to describe the total length of Monica's branch.**

Application Problem

The branch of a tree is 2 meters long. Monica chops the branch for firewood. She cuts pieces that are ⅙ meter long. Draw a number line to show the total length of the branch. Parititon and label each of Monica's cuts.

a. How many pieces does Monica have altogether?

b. Write 2 equivalent fractions to describe the total length of Monica's branch.

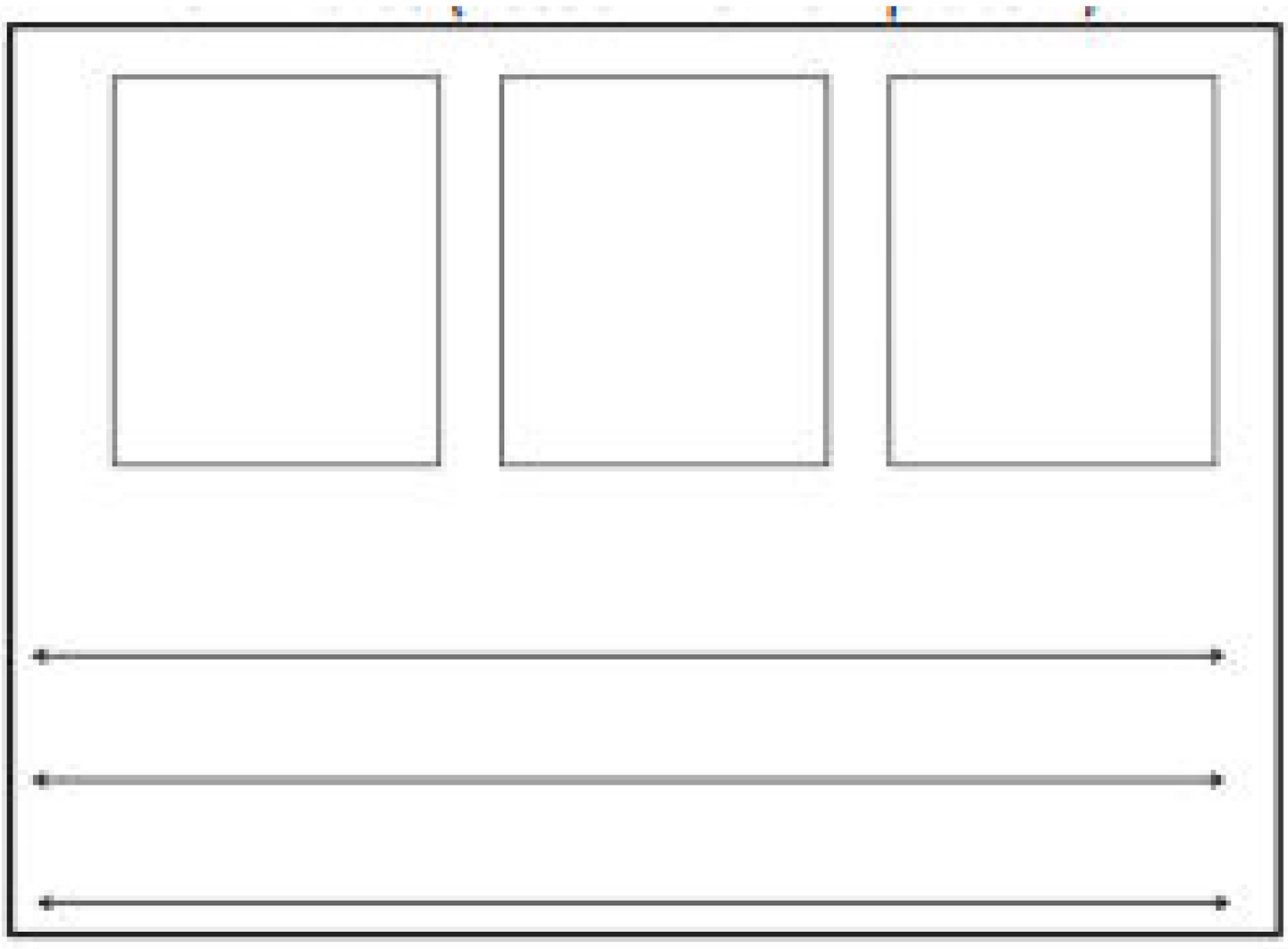


a) Monica has 12 pieces.

b) $\frac{12}{6} = \frac{2}{1}$

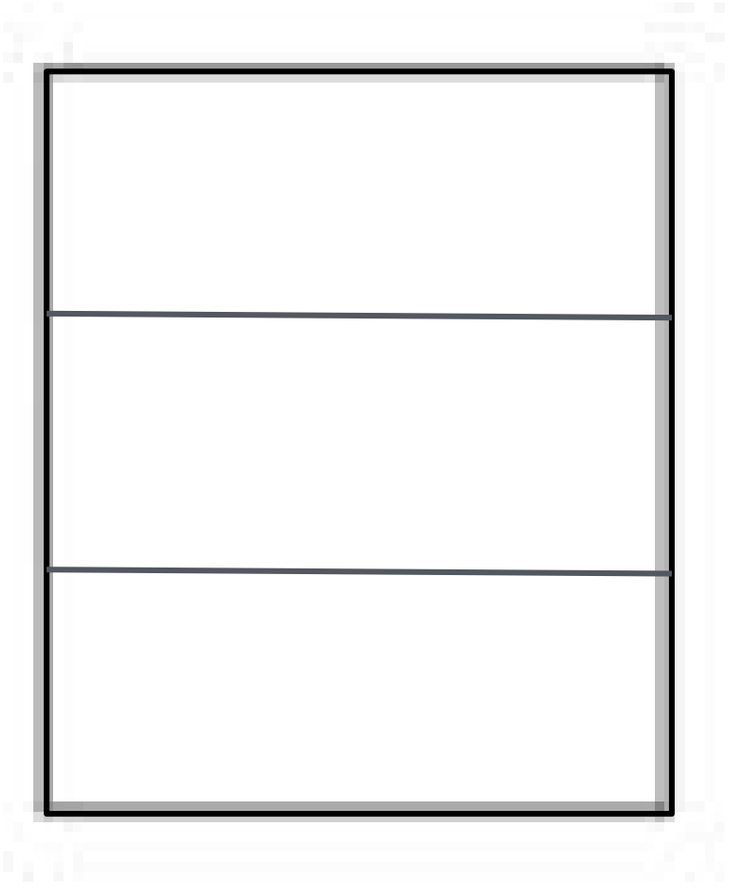
Concept Development

Each rectangle represents 1 whole. Estimate to partition each rectangle into thirds.



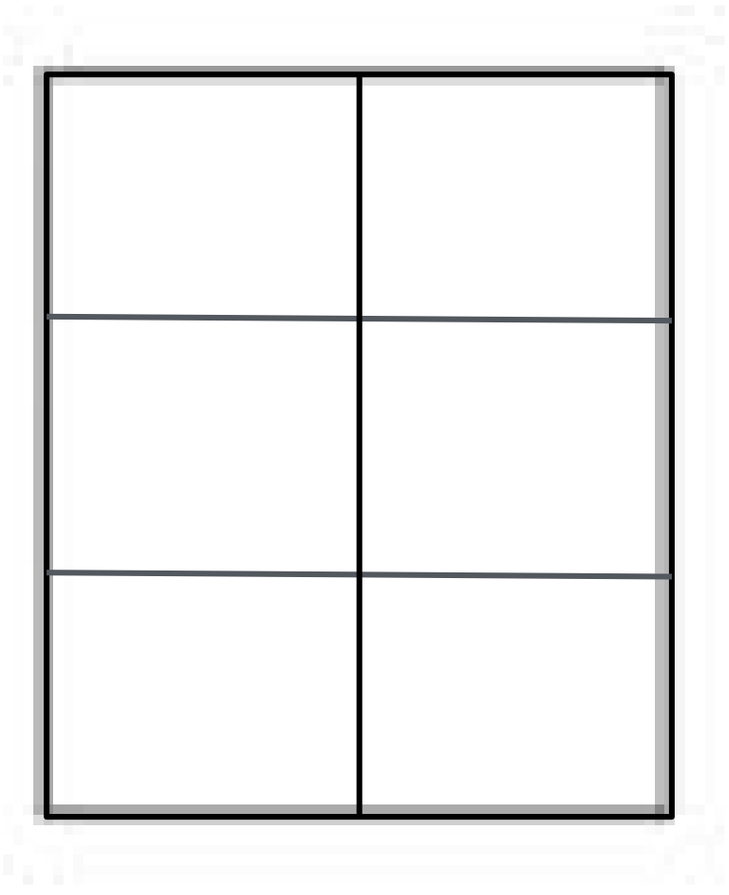
Concept Development

How can we double the number of units in the second rectangle?



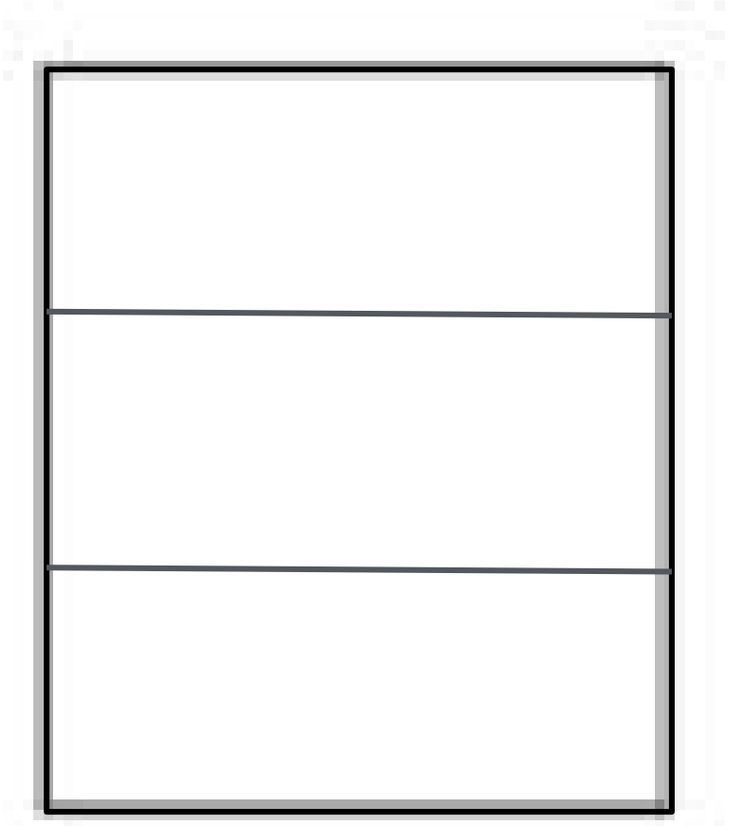
Concept Development

What's our new unit?



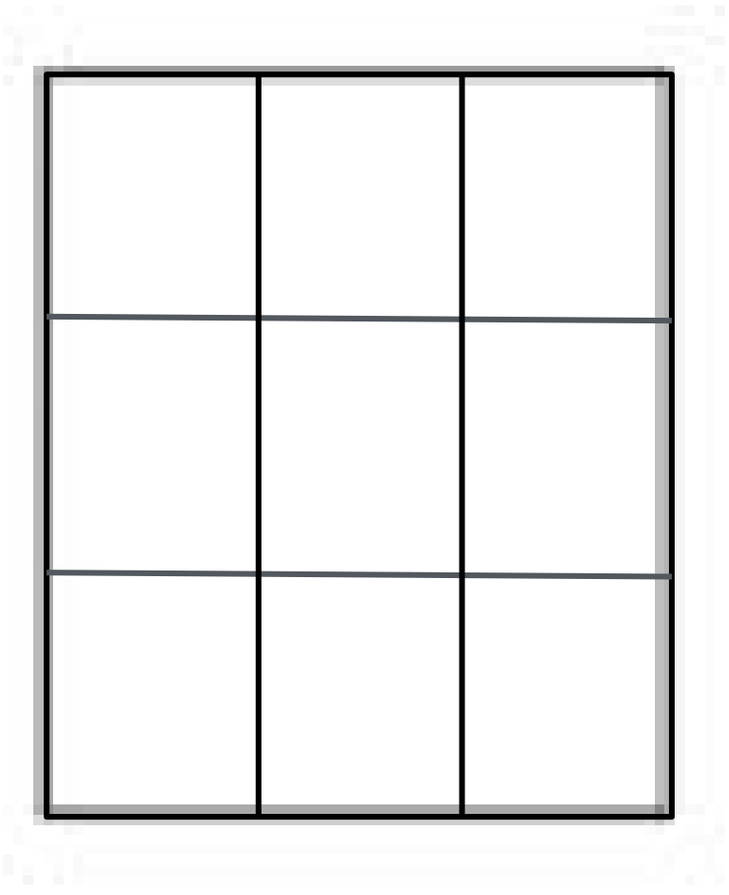
Concept Development

How can we triple the number of units in the third rectangle?



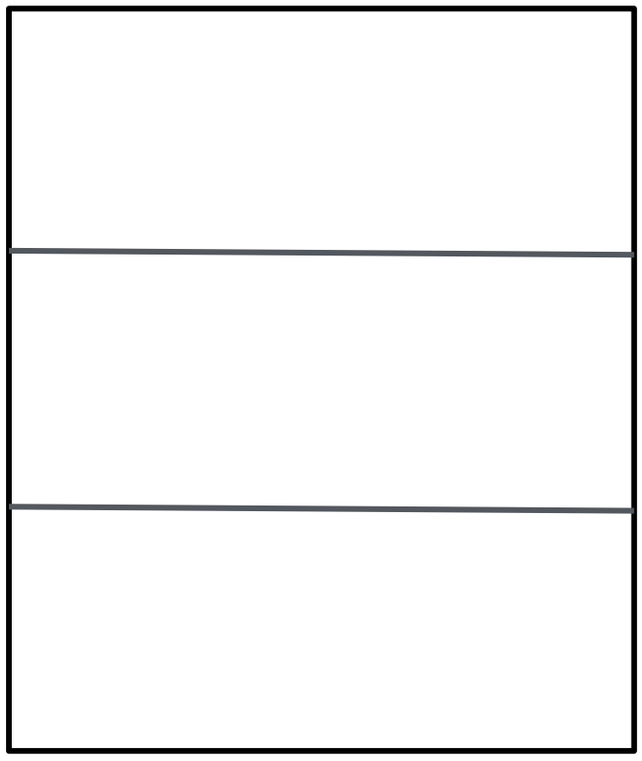
Concept Development

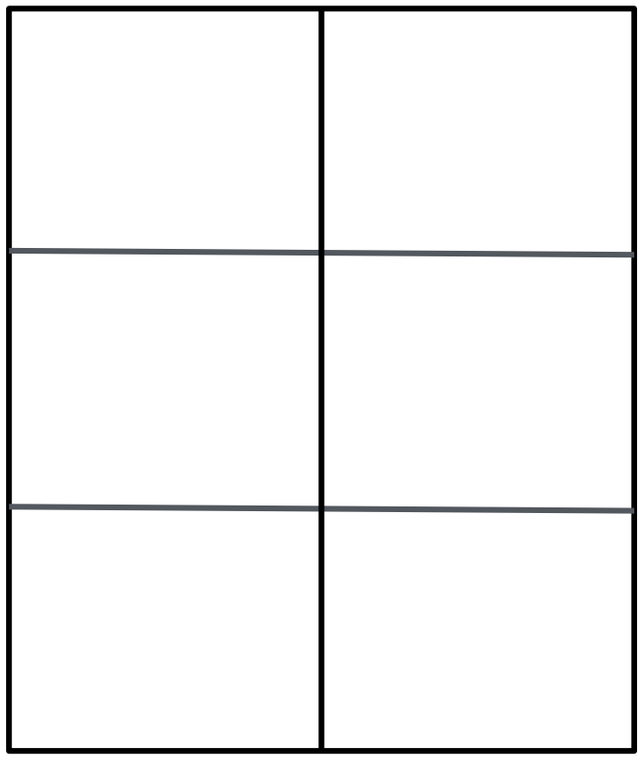
What's our new unit?

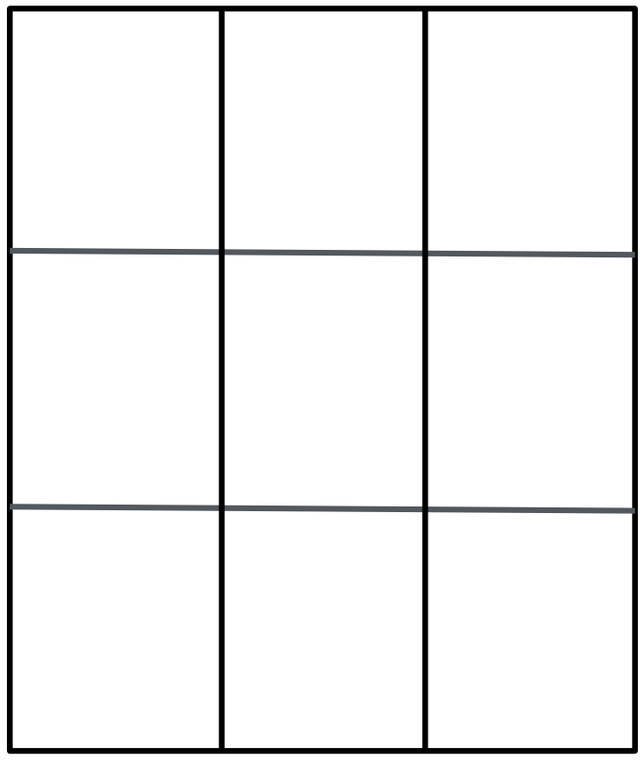


Concept Development

Label the fractions in each model. What is different about these models? What is the same about these models? Talk to your partner about the relationship between the number of parts and the size of the parts in each model.







Concept Development

Fraction Strips

- **Fold all 3 fraction strips into halves.**
- **Fold your second and third fraction strips to double the number of units.**
- **What's the new unit on these fraction strips?**

Concept Development

Fraction Strips

- **Fold your third fraction strip to double the number of units again.**
- **What's the new unit on your third fraction strip?**
- **What happens to the size of the parts when you fold the strip more times?**

Concept Development

Use your fraction strips to find the fractions equivalent to 4/8. Shade them.

Talk to your partner: What do you notice about the size of parts and number of parts in equivalent fractions?

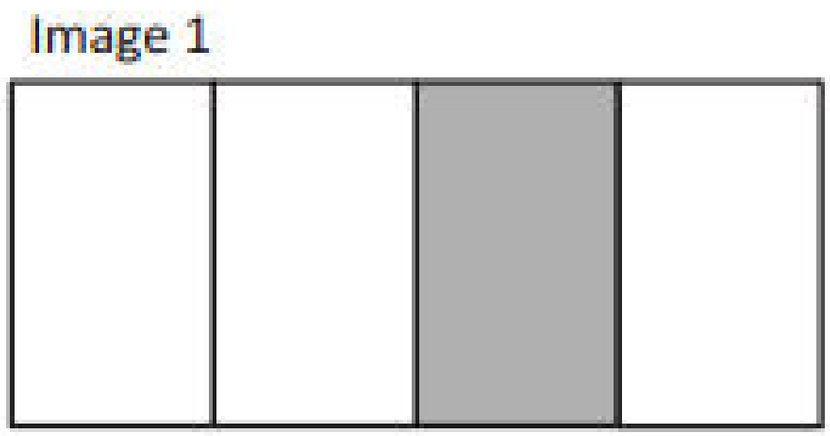
Concept Development

Draw this shape on your board. The entire figure represents 1 whole. Write the shaded fraction.

Image 1

Concept Development

Talk to your partner: How can you partition this shape to make an equivalent fraction with smaller units?

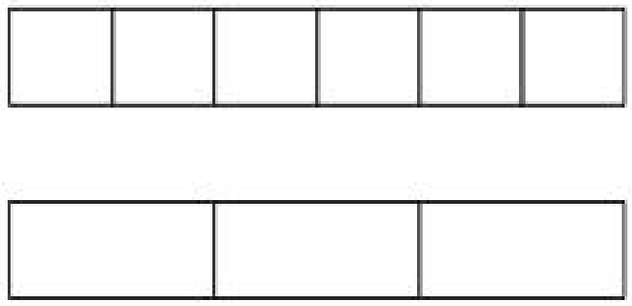


As we partitioned with more parts, what happens to the shaded area and the number of parts needed to make them equivalent?

Problem Set

Name _____ Date _____

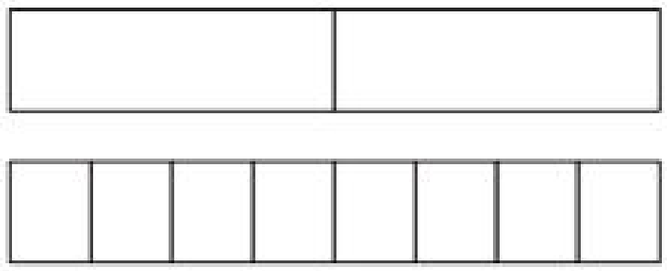
1. Use the pictures to model equivalent fractions. Fill in the blanks, and answer the questions.



4 sixths is equal to _____ thirds.

$$\frac{4}{6} = \frac{\square}{3}$$

The whole stays the same.



1 half is equal to _____ eighths.

$$\frac{1}{2} = \frac{\square}{8}$$

The whole stays the same.

Debrief

- **How did using the fraction strips help you with Problem 2? Talk about the relationship between them.**
- **What was your strategy for Problems 3 and 4? How did it change or stay the same?**
- **Why is it important that the magic wand in Problem 5 keeps the whole the same?**
- **How does the magic wand in Problem 5 make it easy to create equivalent fractions?**

Exit Ticket

Name _____ Date _____

1. Solve.

   2 thirds is equal to _____ twelfths.

$$\frac{2}{3} = \frac{\quad}{12}$$

2. Draw and label two models that show fractions equivalent to those in Problem 1.