

# Eureka Math

## 2nd Grade Module 6 Lesson 8

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.

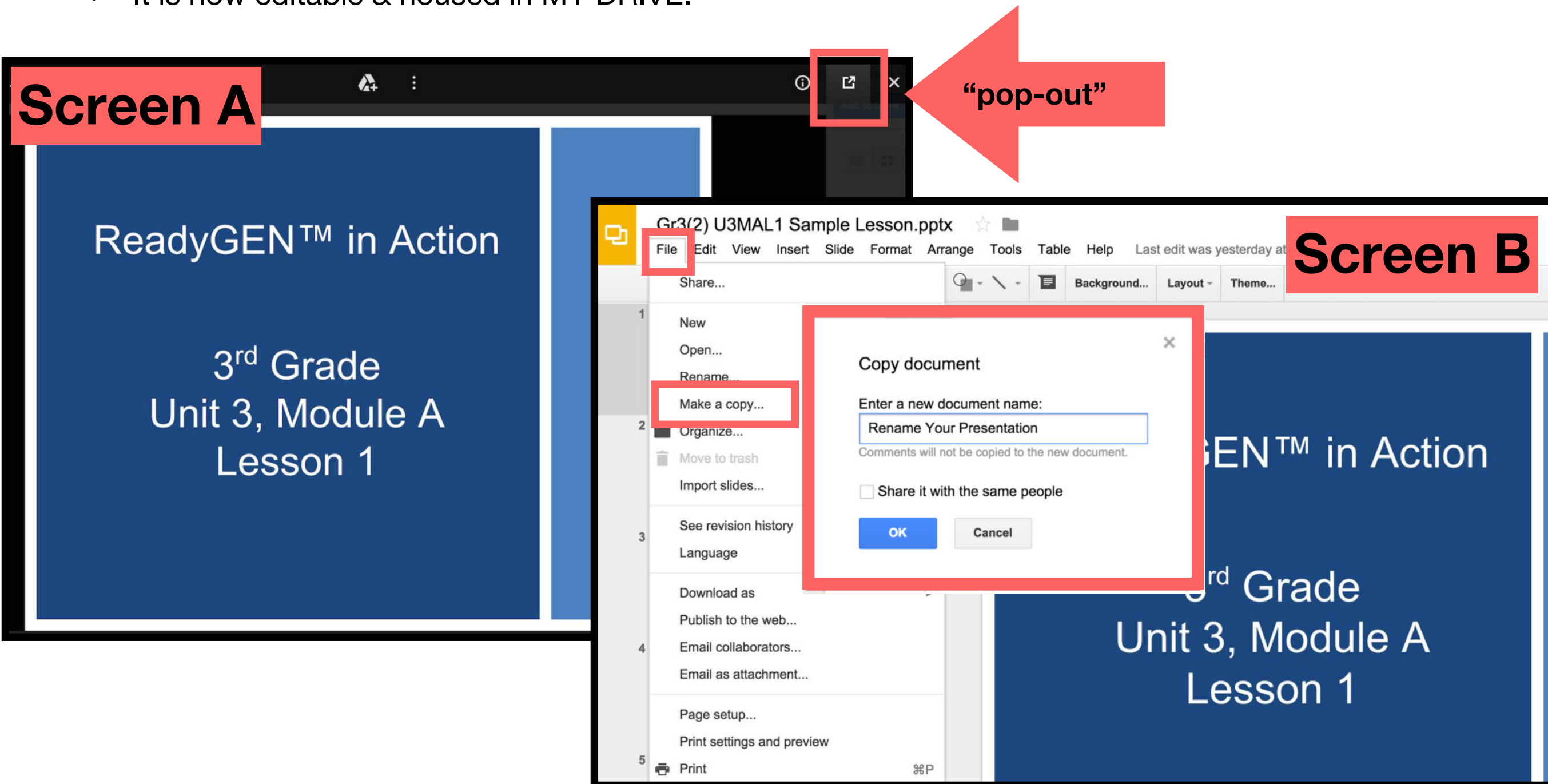


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# Customize this Slideshow

## 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



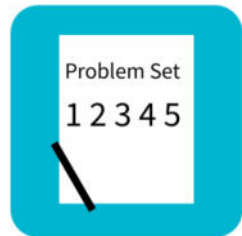
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



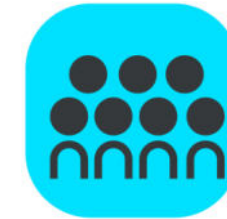
Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



Small Group Time



# Materials Needed:

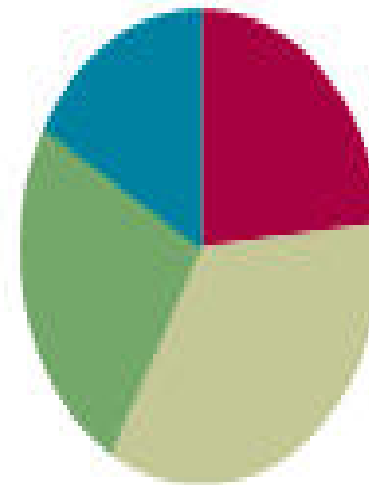
- Sprint
- Personal White Board
- (T/S) 25 square tiles, ruler

## Lesson 8

Objective: Create arrays using square tiles with gaps.

### Suggested Lesson Structure

■ Fluency Practice	(14 minutes)
■ Concept Development	(21 minutes)
■ Application Problem	(15 minutes)
■ Student Debrief	(10 minutes)
Total Time	(60 minutes)





Create arrays with square tiles with gaps.



# Using the next Ten to Subtract



Raise your hand when you know  $16 - 9$ .

$10 - 9$  is...?

$10 - 9$  is...?

$6 + 1$  is...?

$16 + 1$  is...?

$16 - 9$  is...?

$26 - 9$  again is...?

$26 - 9$  is...?



# Sprint

A STORY OF UNITS

Lesson 8 Sprint

2•6

A

Number Correct: \_\_\_\_\_

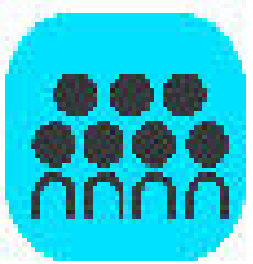
Subtraction from Teens

1.	$11 - 10 =$	
2.	$12 - 10 =$	
3.	$13 - 10 =$	
4.	$19 - 10 =$	
5.	$11 - 1 =$	
6.	$12 - 2 =$	
7.	$13 - 3 =$	
8.	$17 - 7 =$	

23.	$19 - 9 =$	
24.	$15 - 6 =$	
25.	$15 - 7 =$	
26.	$15 - 9 =$	
27.	$20 - 10 =$	
28.	$14 - 5 =$	
29.	$14 - 6 =$	
30.	$14 - 7 =$	



# Concept Development



Take out 17 tiles and separate them into groups of 5 without putting them in rows or columns.

How many groups did you make?

Were there any tiles left?

Why not put them in a group?

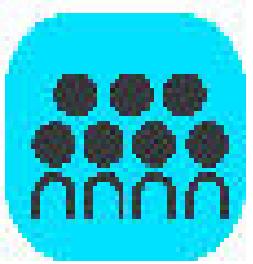
Put the remaining tiles, the ones not in a group, off to the side.

Arrange your groups into 3 equal rows to make an array.

How many rows, or groups, do you see?

What repeated addition sentence can we use to find the total

# Concept Development



Let's use the same groups, but make columns instead.

How many columns, or groups, do you see?

How many tiles in each group?

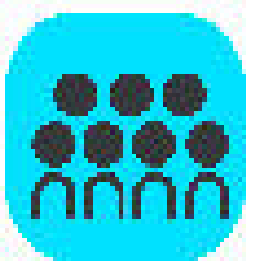
How many fives are there?

Describe the array using the number of columns and the number of tiles in each column.

What is the repeated addition sentence we can use to find the total?

Turn and Talk: What is the same or different about the two arrays we made?

# Concept Development



Now, let's make some arrays one row at a time. Place 3 tiles in one row.

Now, keep adding a row and then another row until you have a total of 12 tiles.

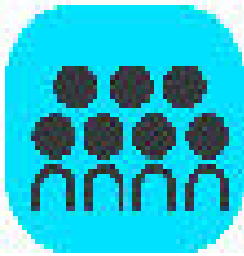
How many rows did you make?

How many equal groups of 3 did you make?

Say the repeated addition sentence to find the total.

Describe the array using the number of rows and the number of tiles in each row.

# Concept Development



This time, let's use our rulers to push our rows together to make one rectangle without spaces between.

Now, using your rulers, separate your array into columns.

How many columns did you make?

How many tiles in each column?

How many equal groups of 4 did you make?

What repeated addition sentence can we use to find the total?

Describe the array using the number of columns and the number of tiles in each column.

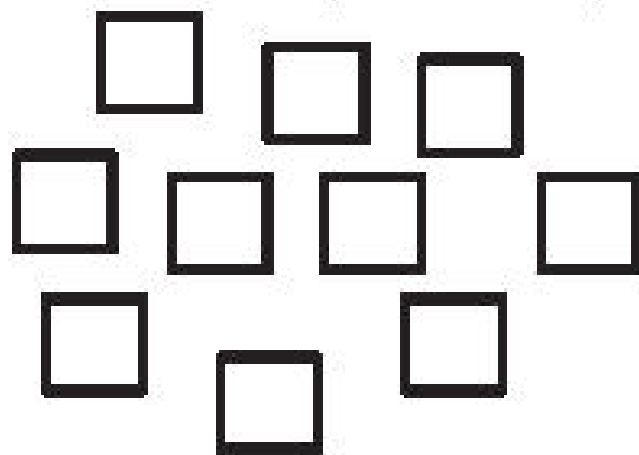
Did the total change?

Does an array made of 4 rows of 3 show the same total as an array made of 3 columns of 4?

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Create an array with the squares.



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2. Create an array with the squares from the set above.

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# Application Problem

Charlie has 16 blocks in his room. He wants to build equal towers with 5 blocks each.

- a. Draw a picture of Charlie's towers.
- b. How many towers can Charlie make?
- c. How many more blocks does Charlie need to make equal towers of 5?



# Debrief

For Problem 1, how did you determine how many squares to put in each row? Describe the array: “There are \_\_\_\_ rows of \_\_\_\_.”

For Problem 2, how did you determine how many squares to put in each column? How is this array different from Problem 1, even though the total is the same?

For Problem 4, compare your answers with a partner's. What repeated addition equation would describe 4 rows of 3? Could you redraw the squares to show an array with equal groups of 2? What would the repeated addition equation look like?



# Debrief

For Problems 5 and 6, what steps did you take to draw the arrays? How many squares were in each group?

For Problem 5(b), Soo Min wrote  $4 + 4 = 8$ . Tasha wrote  $2 + 2 + 2 + 2 = 8$ . Are they both correct?

How do you know?



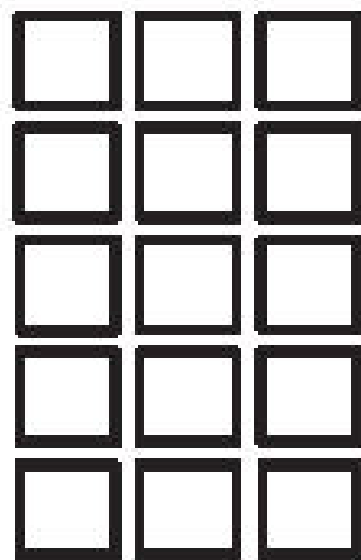


# Exit Ticket

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use the array of squares to answer the questions below.



- a. There are \_\_\_\_ squares in one row.
- b. There are \_\_\_\_ squares in one column.
- c. \_\_\_\_ + \_\_\_\_ + \_\_\_\_ = \_\_\_\_
- d. 3 columns of \_\_\_\_ = \_\_\_\_ rows of \_\_\_\_ = \_\_\_\_ total

2. a. Draw an array with 10 squares that has 5 squares in each column.