Eureka Math

2nd Grade
Module 6
Lesson 12

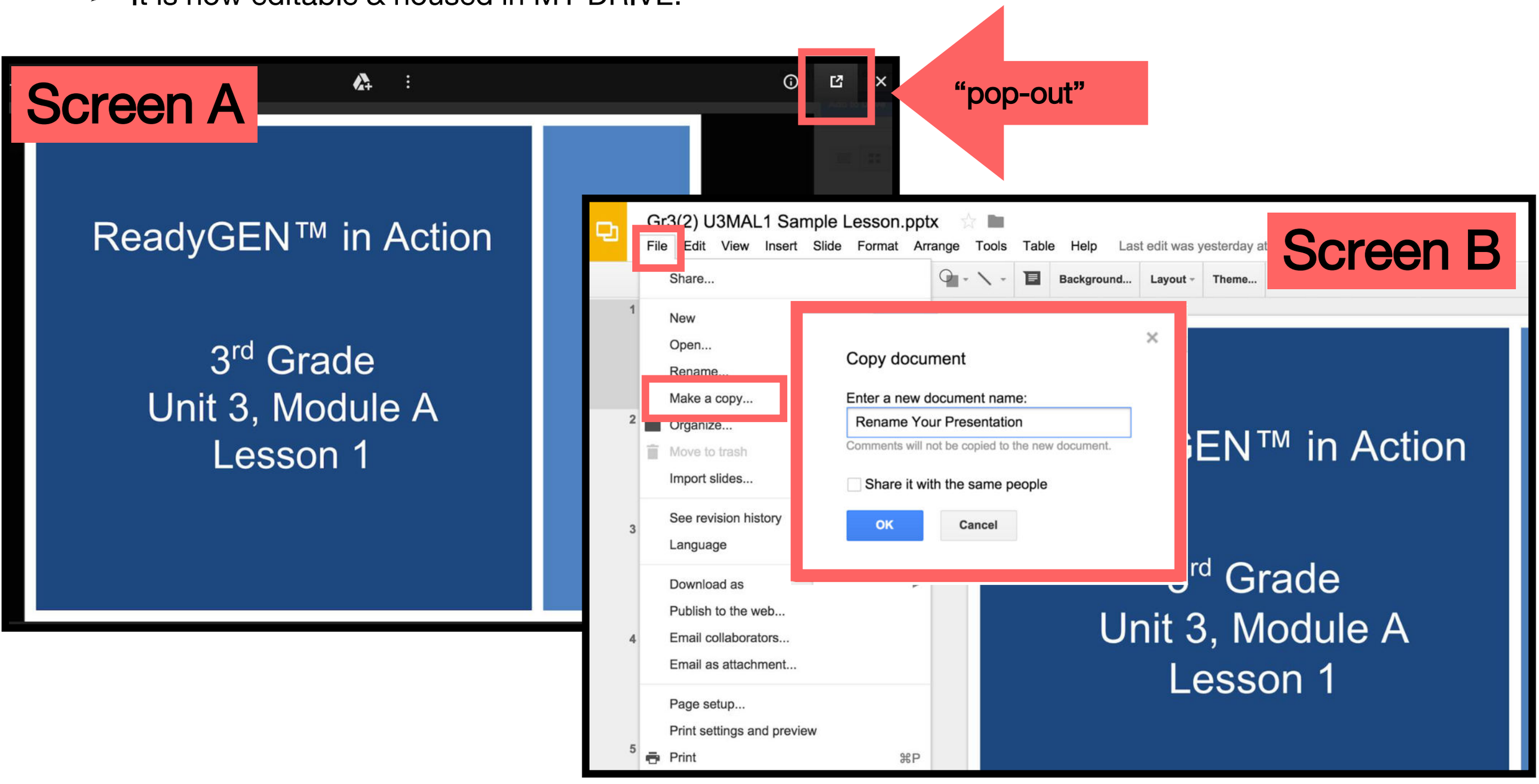
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

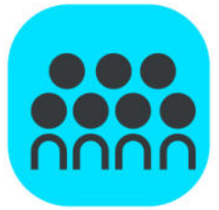
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

Materials Needed:

- Core Fluency Sprints
- (T) 1 square tile & plain white paper
- (S) 6 square tiles & plain white paper

Lesson 12

Objective: Use math drawings to compose a rectangle with square tiles.

Suggested Lesson Structure

Fluency Practice	(10 minutes)
Concept Development	(24 minutes)
Application Problem	(16 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**

Use math drawings to compose a rectangle with square tiles.

Compensation Practice

Use mental math to make a 10, then add what remains.

42 + 19 = ____

What does 19 need to make the next 10?
Where can 19 get 1 more from?

42 + 19

41 1

Say the simplified equation: 42 + 19 = 41 + 20 = _____

Solve the following problems using compensation:

42 + 19 = _____ 37 + 19 = _____ 52 + 19 = _____

Sprint

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set A | 2•6

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set B | 2•6

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set C | 2•6

A STORY OF UNITS | Lesson 1 Core Fluency Practice Set D | 2•6

Name _____ Date _____

1.	19 – 9 =	21.	16 – 7 =

Concept Development

Part 1- Trace a unit square to draw an array.

Make an array with 2 rows of 3 using your tiles.

We can draw the same array by tracing one square tile.

Put the tile in the top left corner of the paper. ---------->

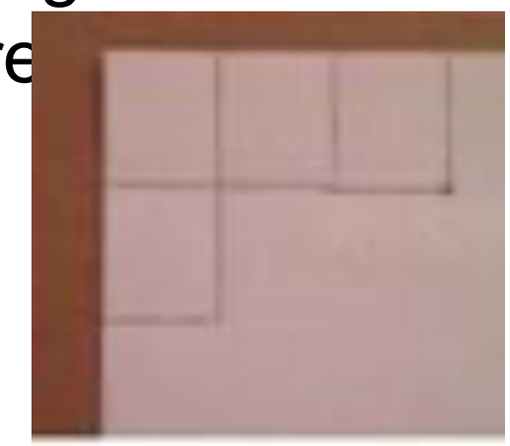
Use the edge of your paper to keep the tile straight.

Trace the first tile. ---------->

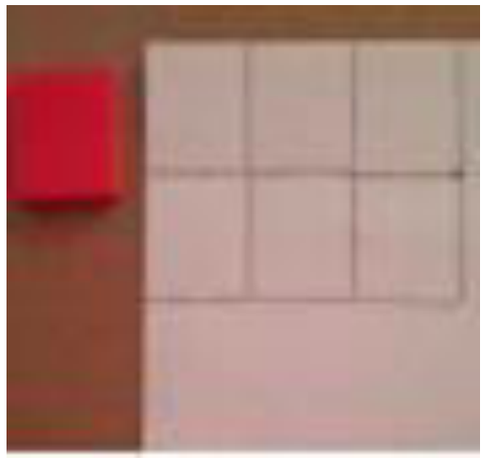
\What should we do next to create 2 rows of 3?

Concept Development

Let's add another row by tracing the tile below the first one. Do we need to trace the whole square



How many more squares do we need to complete this array?



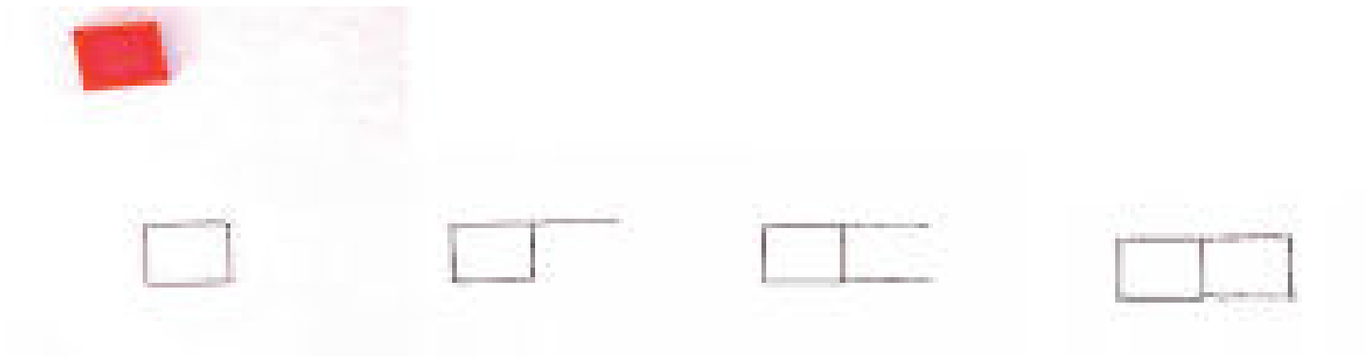
This process reminds me of when we created rulers. How is creating the arrays this way similar to creating rulers?

Students repeat this process to draw an array that has 2 rows with 4 in a row.

Concept Development

Part 2- Draw an array without using a tile

Now, we'll draw an array mostly without the tile. To start, trace a tile in the middle of your paper



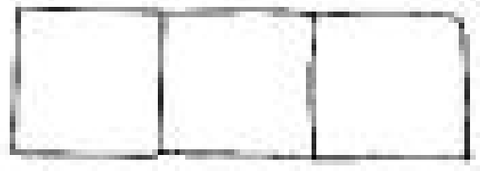
Start at the top side of the next square. Try to make it the same length as the original tile.

Next, draw the bottom bottom line the same length as the top line.

Finally, close the square by drawing a third vertical line.

How many more squares do we need to draw to make 1 row of 3?

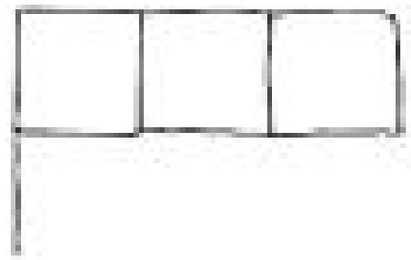
Add a square to your array to make 1 row of 3.



Concept Development

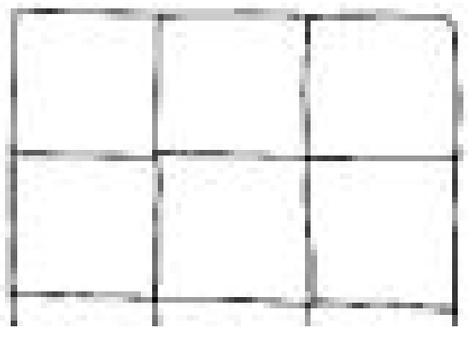
Let’s add another row to our array.

Draw a vertical line down the same height of the tile.



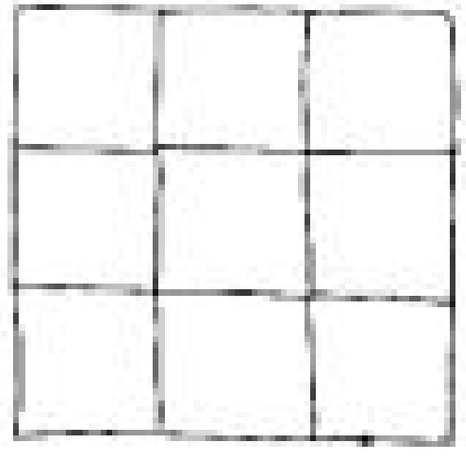
Next, draw 3 more vertical lines the same length.

Finally, close the rectangle by drawing a third horizontal line.



How many more rows do we need to draw to make 3 rows of 3?

Finish your array to show 3 rows of 3.



What shape did you end up drawing?

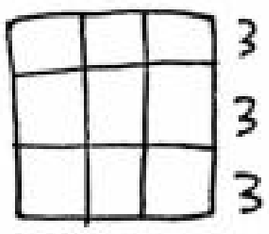
Application Problem

Lulu made a pan of brownies. She cut them into 3 rows and 3 columns.

a. Draw a picture of Lulu's brownie in the pan.

b. Write a repeated addition equation to show how many brownies are in the pan.

c. Write a statement to show how many brownies Lulu has.

a. 

b. $3+3+3=9$

c. Lulu has 9 brownies.

Name _____ Date _____

1. Draw without using a square tile to make an array with 2 rows of 5.

2 rows of 5 = _____

_____ + _____ = _____

Debrief

For problem 3a and 3b, what was your first step in drawing a rectangle?

Explain to your partner how to draw a rectangle with one square tile. Why was precision important today? How is this different from drawing an array with X's.

For problems 1 and 2, discuss with your partner how the repeated addition equation related to the number of units in each rectangle.

Debrief

What was challenging about drawing a rectangle without tracing the square tile in problem 3? What did you need to be sure to do?

How does your drawing a rectangle support the idea of compsing a larger unit from smaller units? Use the terms *square*, *rows*, and *columns* in your response.

Exit Ticket

Name _____ Date _____

Draw an array of 3 columns of 3 starting with the square below without gaps or overlaps.