Eureka Math

2nd Grade
Module 6
Lesson 17

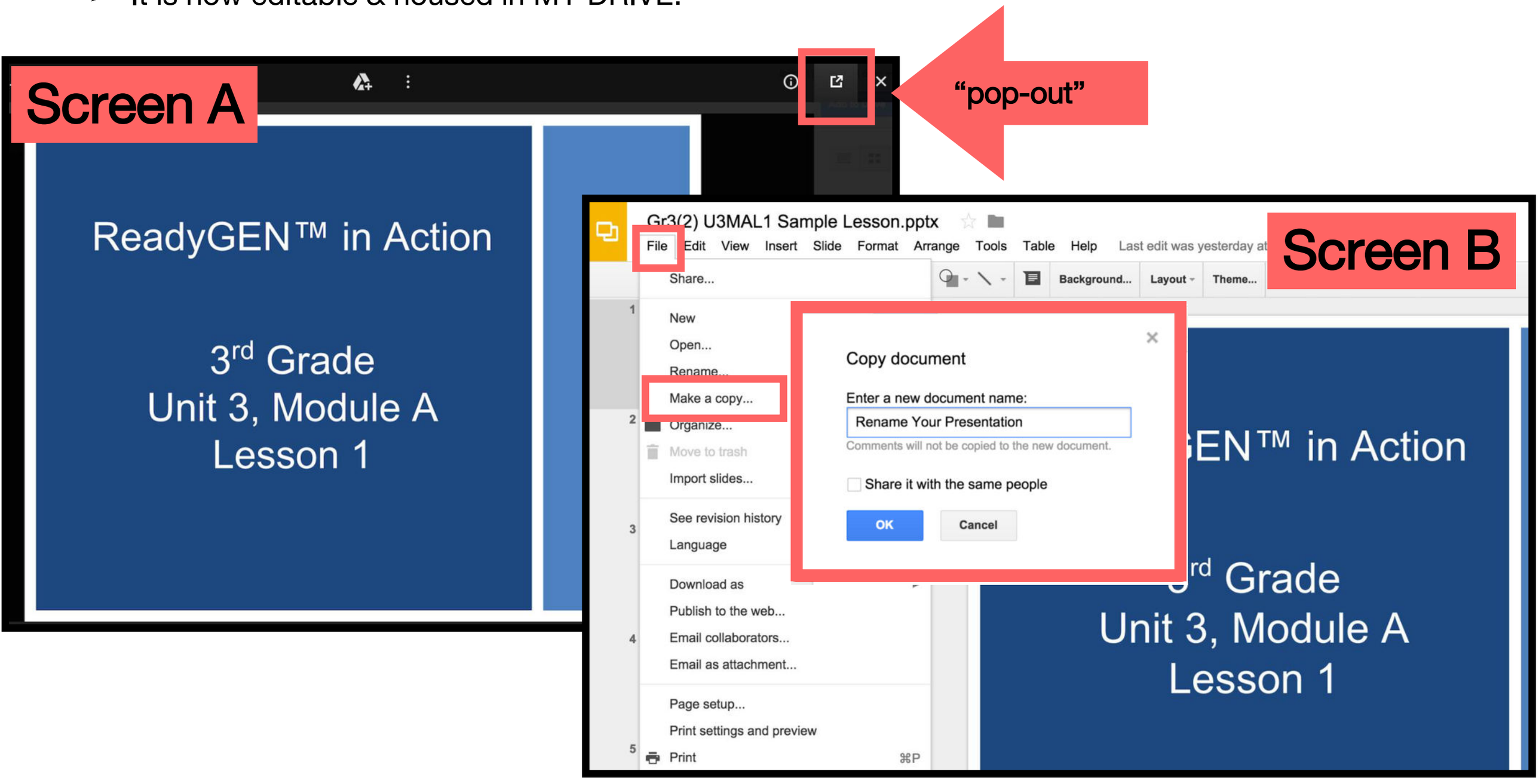
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

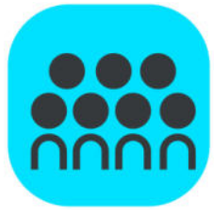
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

Materials Needed:

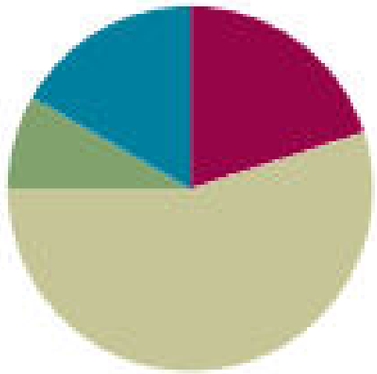
- 3 dimes, 10 pennies
- Grid paper
- 1 in tiles
- Scissors, colored pencils, crayons, colored paper

Lesson 16

Objective: Use grid paper to create designs to develop spatial structuring.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



I can use drawings to create patterns in arrays.

Get to 10, 20 or 30

Figure out the total and say the number sentence that is shown by the dimes and pennies...

Teacher shows a sequence of different combinations

Count by 10 or 1 with Dimes and Pennies

First minute: Place and take away dimes in a 5-group formation as students count along by 10.

Second minute: Begin with 2 pennies. Ask how many ones there are. Instruct students to start at 2 and add and subtract 10 as dimes are placed and taken away.

Third minute: Begin with 2 dimes. Ask how many tens there are. Instruct students to begin at 20 and add and subtract 1 as pennies are placed and taken away

Core Fluency Practice Set

Continue work on the core fluency skills.

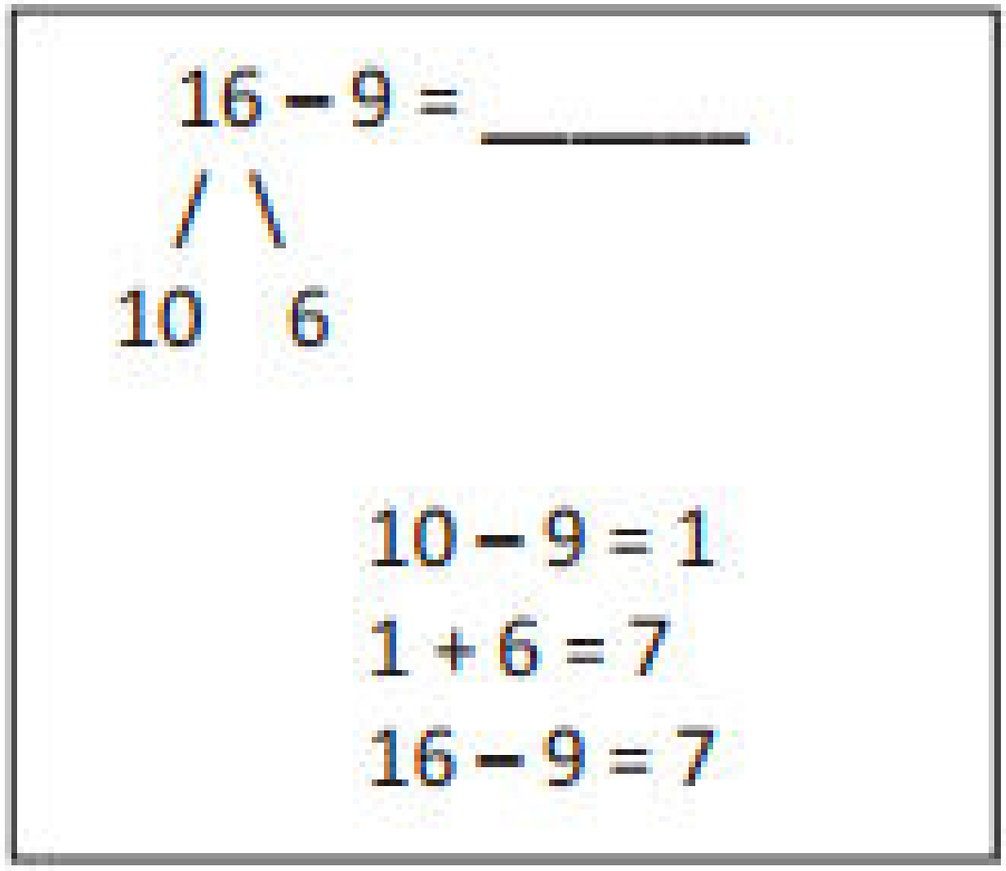
Using the Nearest 10 to Subtract

16 - 9

16 is 10 + 6

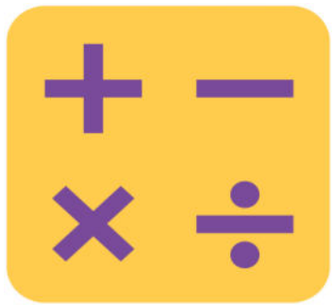
Can we take 9 away from 10?

What is left over?



SO, we have 1 and 6 left. If we
Add them up, we will have the answer to 16 - 9.

(14 – 9, 15 – 8, 16 – 7, 13 – 7, 12 – 9, 12 – 7, 22 – 7, 25 – 7, 25 – 9, 26 – 9, 27 – 9, 27 – 19, 37 – 9, 37 – 19, 35 – 19, 45 – 19, 47 – 18, and 48 – 29)



Subtract Common Units

44...let’s say this number in Unit Form

How many tens? How many ones?

44 - 22...How do we say this in unit form?

4 tens - 2 tens, 4 ones - 2 ones

Write the number sentence on your white boards

(77 – 33, 88 – 55, 99 – 33, 199 – 33, and 999 – 33)

Application Problem

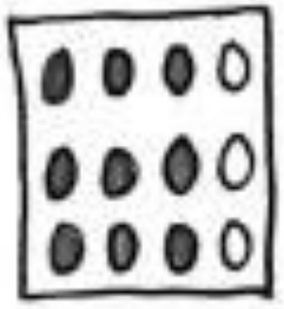
Rick is baking muffins again. He filled 3 columns of 3 and left one column of 3 empty.

a. Draw a picture to show what the muffin pan looked like. Shade the columns that Rick filled.

b. Write a repeated addition equation to tell how many muffins Rick makes. Then, write a repeated addition equation to tell how many muffins would fit in the whole pan.

Application Problem

Rick is baking muffins again. He filled 3 columns of 3 and left one column of 3 empty.

a. 

b. $3+3+3=9$

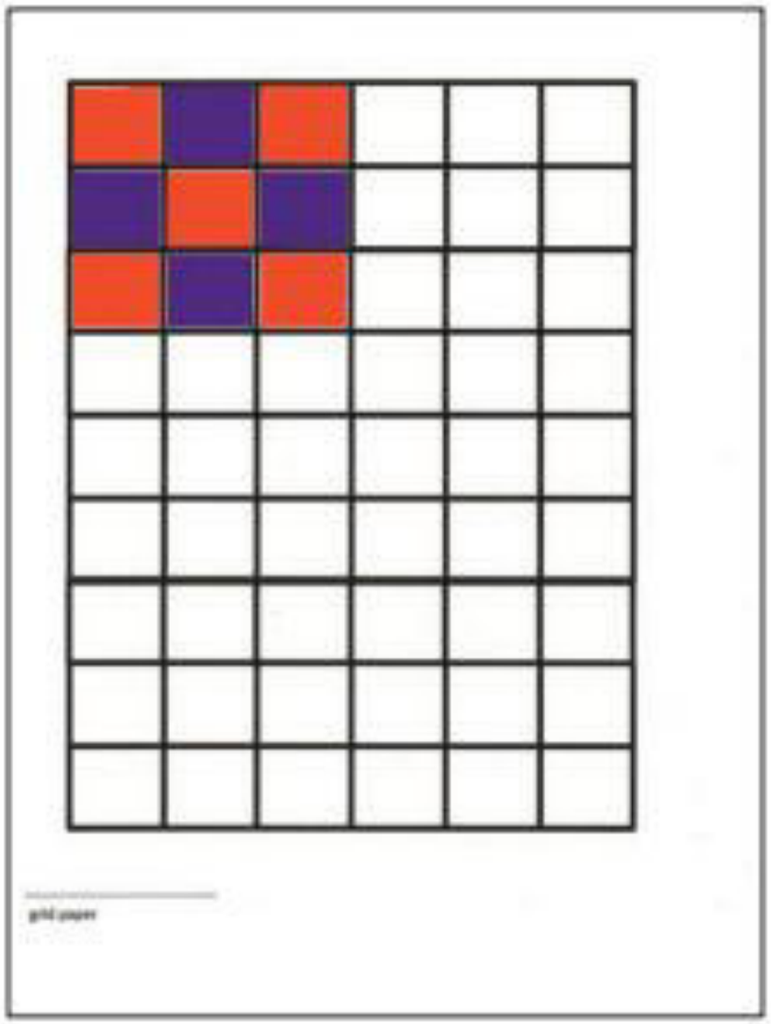
Rick makes 9 muffins.

$3+3+3+3=12$

12 muffins would fit in the whole pan.

Concept Development

Model, explain and work through Problem Set together.



1. Create a 10 tile design.
2. Create a 16 tile design
3. Share/check with partner
4. Create a tesselation

Problem Set

Name _____ Date _____

Use your square tiles and grid paper to complete the following problems.

Problem 1

a. Cut out 10 square tiles.
b. Cut one of your square tiles in half diagonally.
c. Create a design.
d. Shade in your design on grid paper.

Debrief

- For Problems 1–3, how is knowing how to build an array helpful in creating designs with the tiles?
- What was the most challenging part of today's Problem Set? Why?
- What exciting new math vocabulary did we learn today? How would you describe a **tessellation** to a first grader?
- How is making copies of a unit similar to something we have done before?
- Where do you see tessellations at school? At home? Outside?

Exit Ticket

Name _____ Date _____

Use your square tiles and grid paper to complete the following.

a. Create a design with the paper tiles you used in the lesson.
b. Shade in your design on the grid paper.