Eureka Math

4th Grade
Module 3
Lesson 31

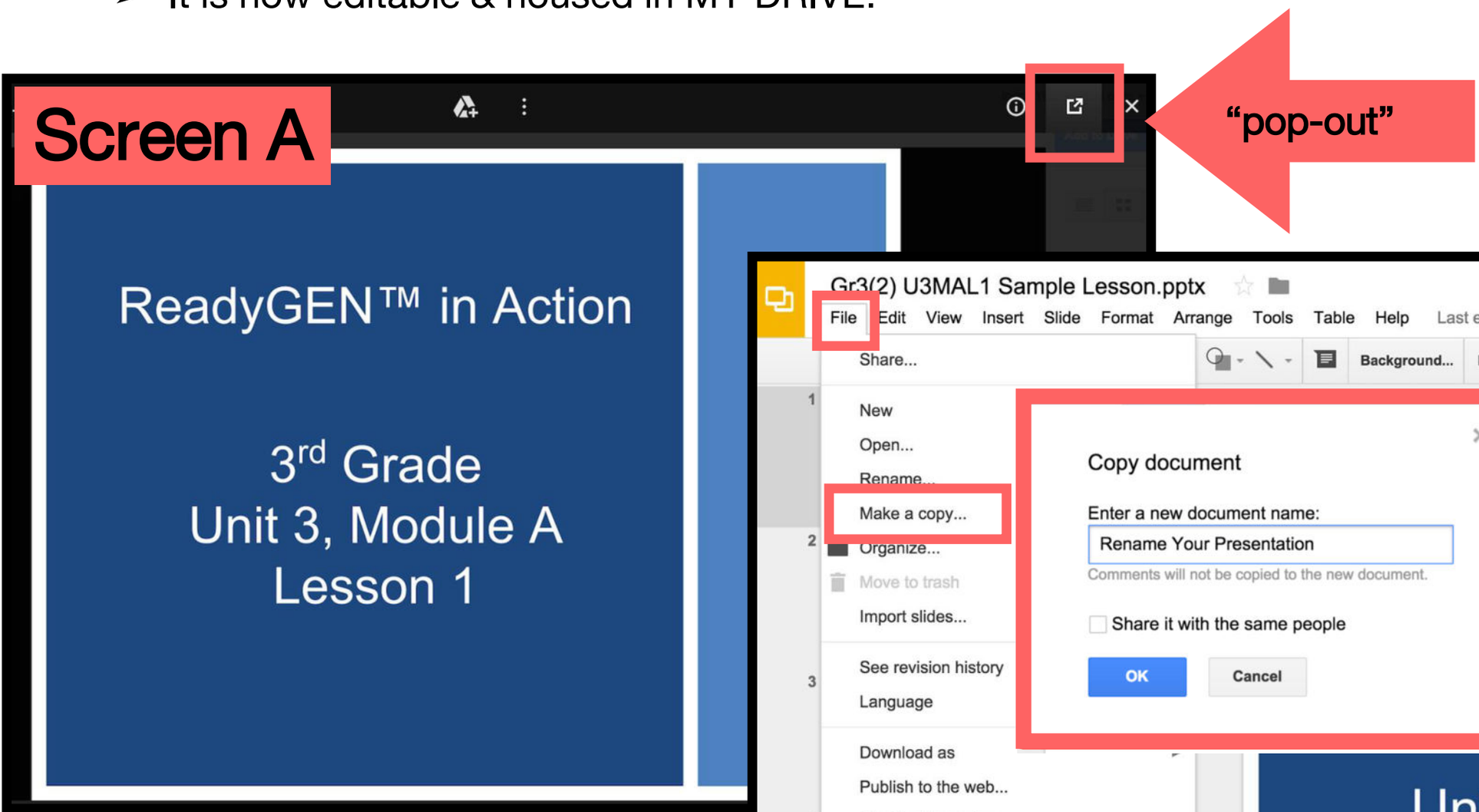
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

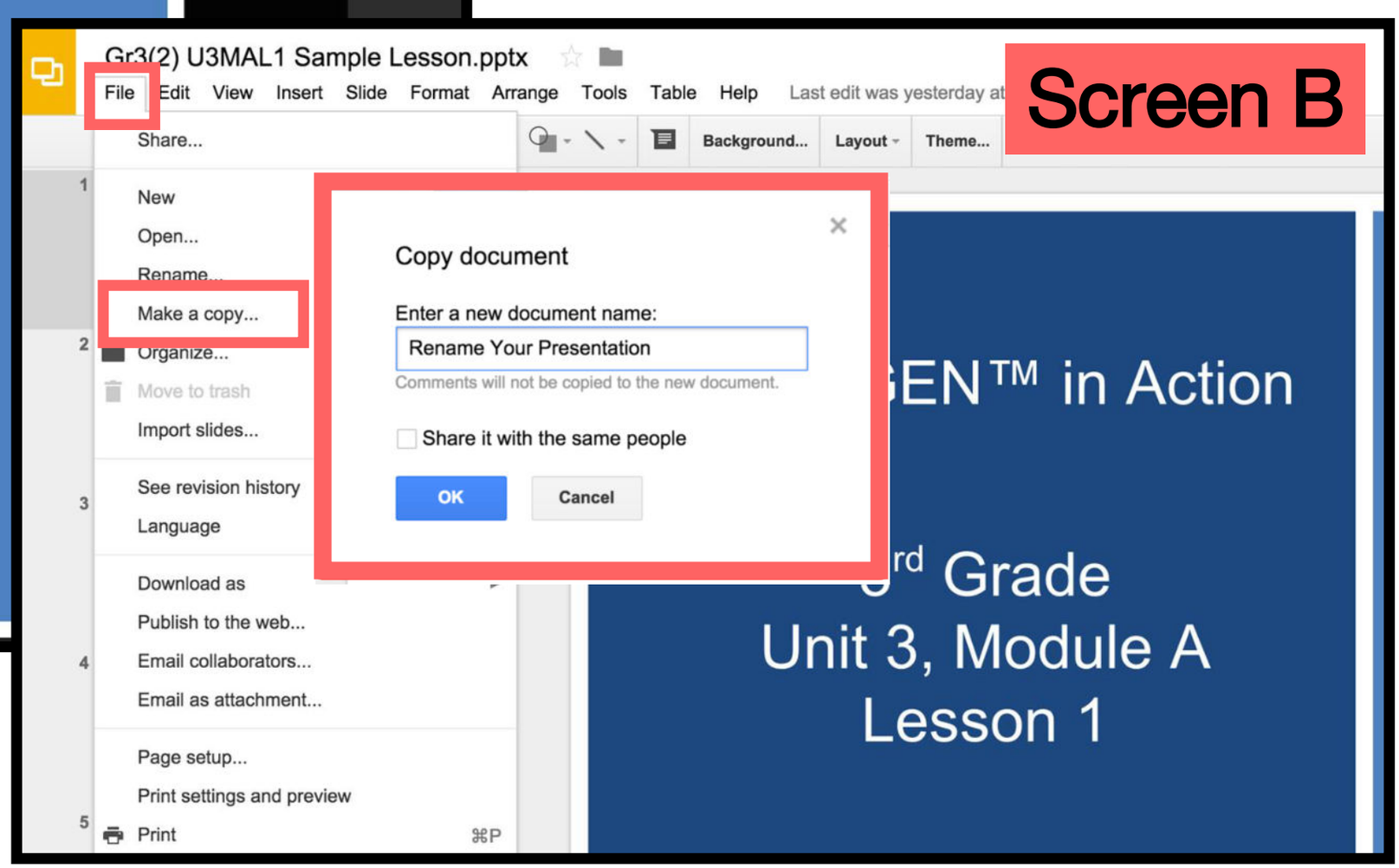
Directions for customizing presentations are available on the next slide.

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.



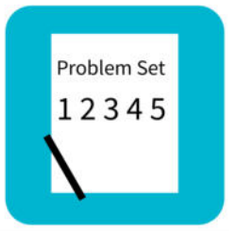


Icons

Read, Draw, Write

Learning Target

Personal White Board

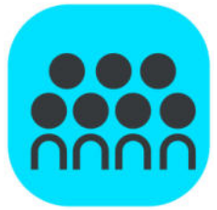


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

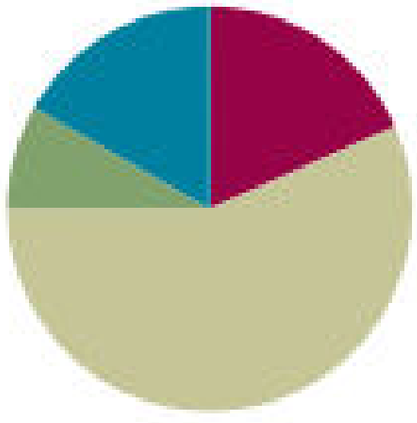
Small Group Time

Lesson 31

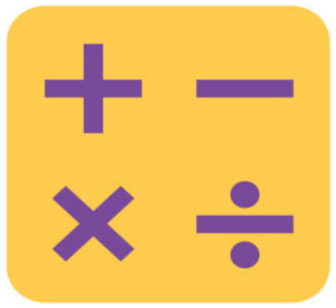
Objective: Interpret division word problems as either *number of groups unknown* or *group size unknown*.

Suggested Lesson Structure

Fluency Practice	(11 minutes)
Application Problem	(5 minutes)
Concept Development	(34 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



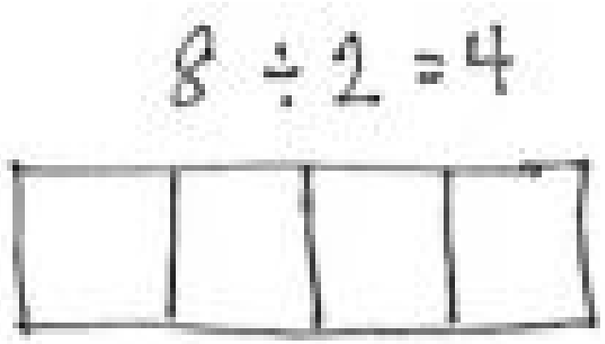
I can interpret division word problems as either number of groups unknown or group size unknown.

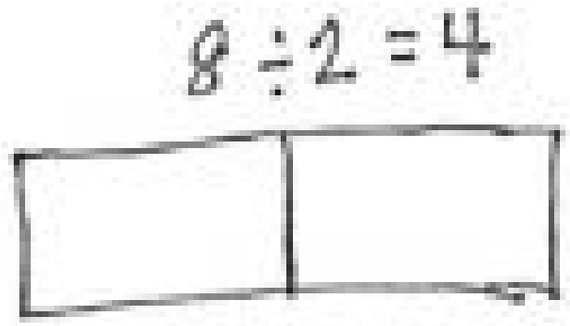


Sprint!

Divide different units

Group Size or Number of Groups Unknown

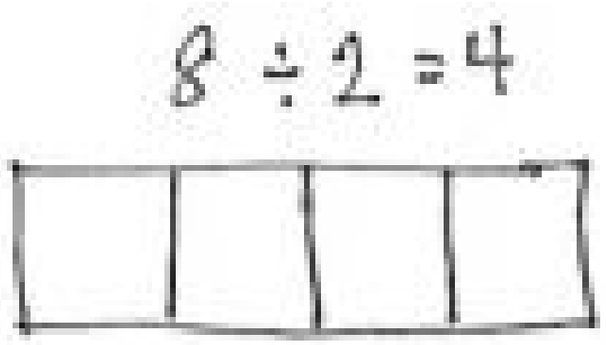


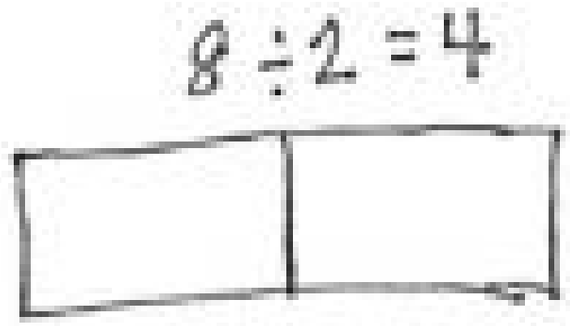


Here are two tape diagrams representing 8 ÷ 2 = 4.

On the model on the left, what does the 2 represent, the size of the group or the number of groups?

Group Size or Number of Groups Unknown

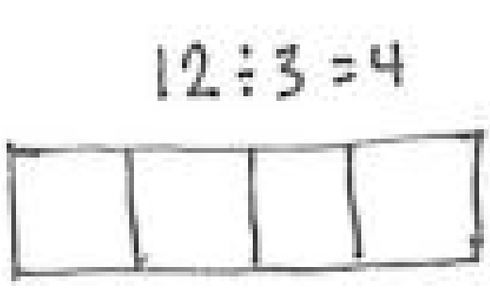


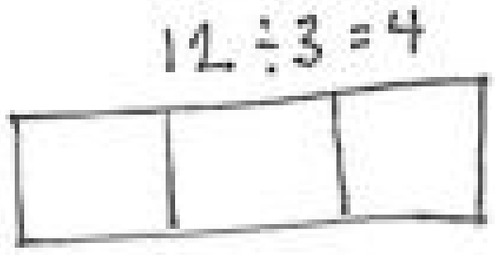


Here are two tape diagrams representing 8 ÷ 2 = 4.

On the model on the right, what does the 2 represent, the size of the group or the number of groups?

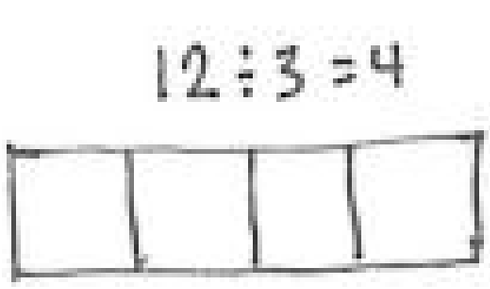
Group Size or Number of Groups Unknown

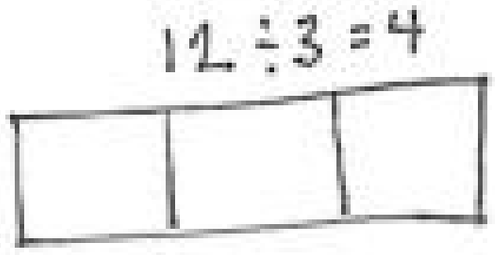




On the model on the left, what does the 4 represent, the size of the group or the number of groups?

Group Size or Number of Groups Unknown





On the model on the right, what does the 4 represent, the size of the group or the number of groups?

Application Problem

1,624 shirts need to be sorted into 4 equal groups. How many shirts will be in each group?

Concept Development

Materials

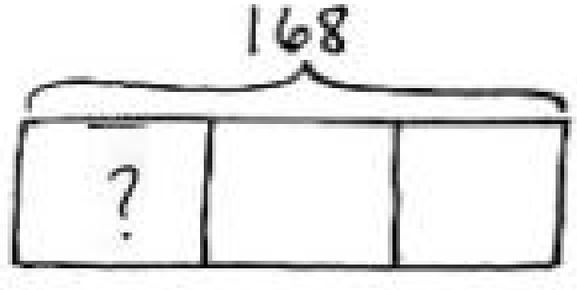
- [ ] (S) Personal white boards, thousands place value chart (template)

Concept Development

Dr. Casey has 1,868 milliliters of Medicine T. She pours equal amounts of the medicine into 4 containers. How many milliliters of medicine are in each container?

Can you draw something to help you solve this?
What are we trying to find out? Size of groups or number of groups?

Concept Development



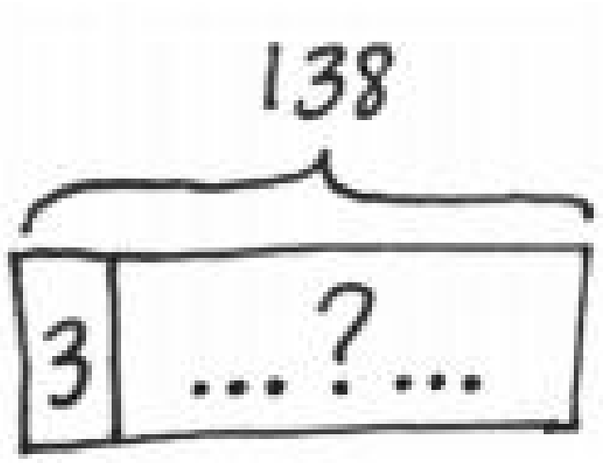
With your partner, discuss the tape diagram. Then, create your own word problem to match. Remember to determine if you are finding the size of the group or the number of groups.

Concept Development

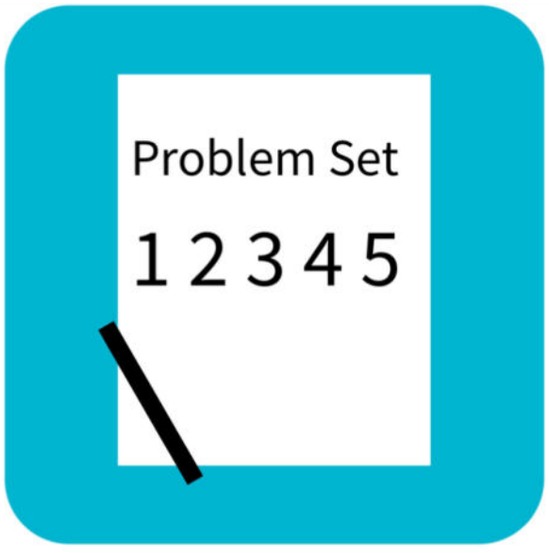
Two hundred thirty-two people are driving to a conference. If each car holds 4 people, including the driver, how many cars will be needed?

Can you draw something to help you solve this problem?
What did you draw?
Tell your partner how you partitioned the tape diagram. Are you finding the size of each group or the number of groups?

Concept Development



With your partner, discuss the parts of the tape diagram. Then, write your own word problem to match. Remember to determine if you are solving for the size of the group or the number of groups.

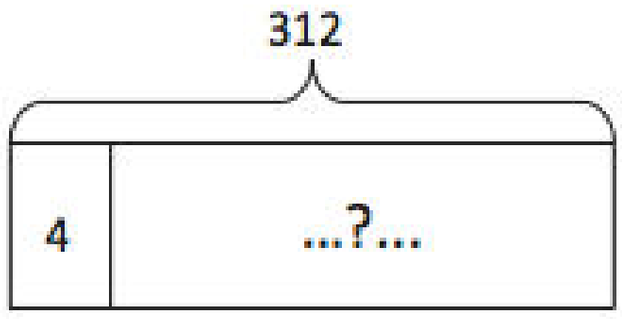


Problem Set

Name _____ Date _____

Draw a tape diagram and solve. The first two tape diagrams have been drawn for you. Identify if the group size or the number of groups is unknown.

1. Monique needs exactly 4 plates on each table for the banquet. If she has 312 plates, how many tables is she able to prepare?



Debrief

How and why are the tape diagrams in Problems 1 and 2 different?

Share your tape diagram for Problem 3.

What led you to draw a tape diagram to solve for the number of groups?

For Problem 3, if our tape diagram shows the whole divided into 3 equal groups instead, would we get the wrong quotient?

Compare your tape diagrams for Problem 2 and Problem 4. Describe how your tape diagrams differ between one- and two-step problems.

Exit Ticket

Name _____ Date _____

Solve the following problems. Draw tape diagrams to help you solve. Identify if the group size or the number of groups is unknown.

1. 572 cars were parked in a parking garage. The same number of cars was parked on each floor. If there were 4 floors, how many cars were parked on each floor?