Materials List:

- Multiply or Divide by 7 Sprint
- Whiteboards
- Rulers
- 3 strings from Lesson 26
- Sample problem set template

Eureka Math

3rd Grade
Module 7
Lesson 27

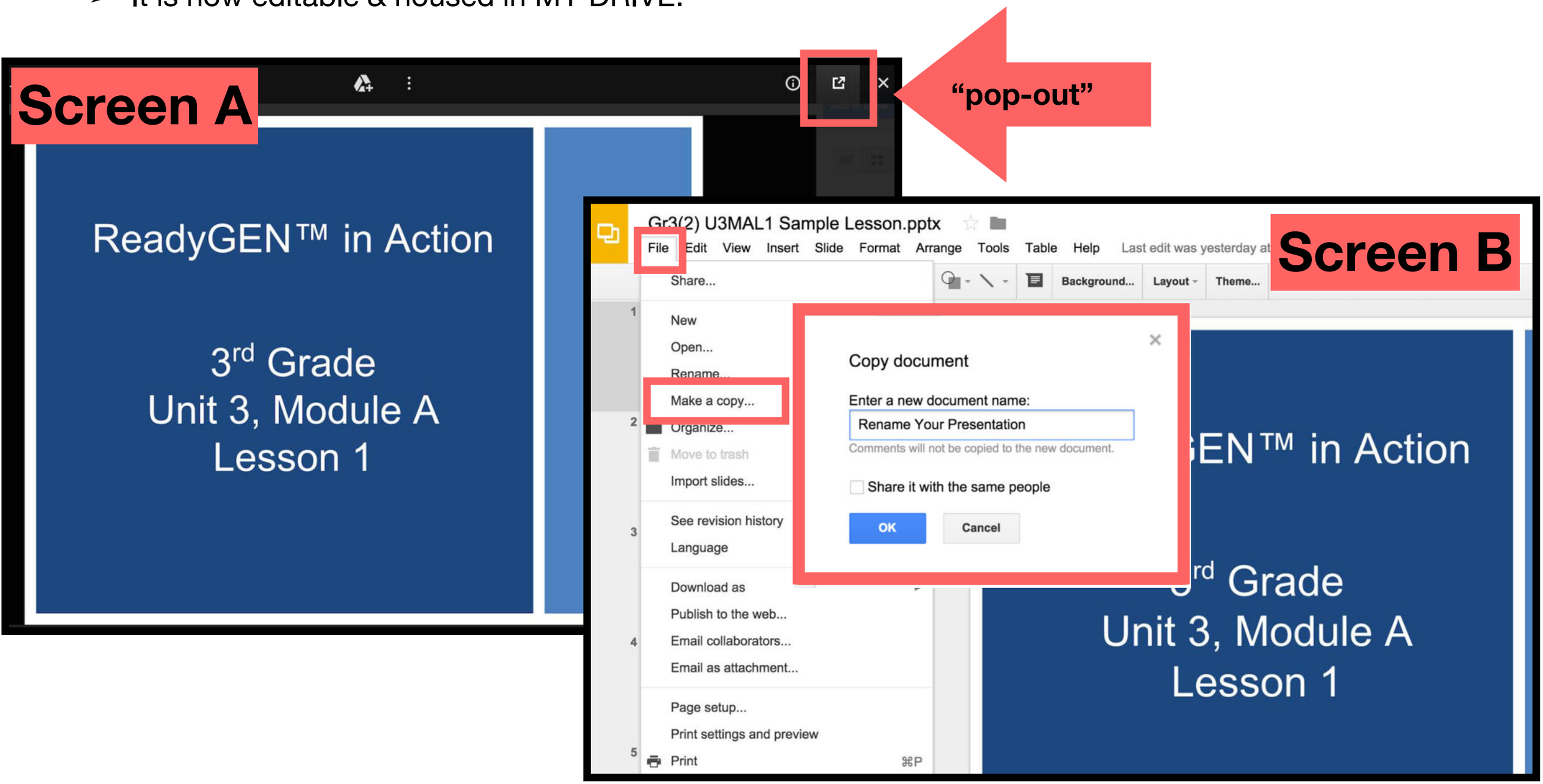
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

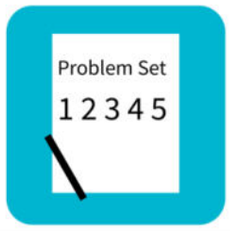


Icons

Read, Draw, Write

Learning Target

Personal White Board

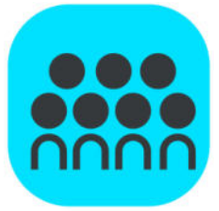


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

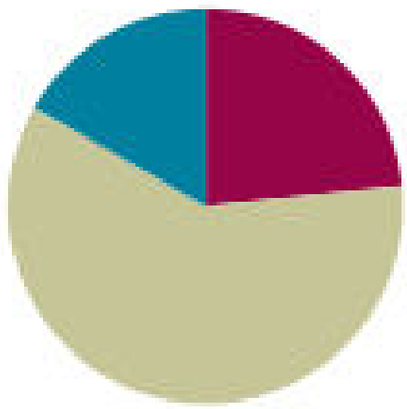
Small Group Time

Lesson 27

Objective: Use rectangles to draw a robot with specified perimeter measurements, and reason about the different areas that may be produced.

Suggested Lesson Structure

Fluency Practice	(14 minutes)
Concept Development	(36 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



I can use rectangles to draw a robot with specified perimeter measurements, and reason about the different areas that may be produced.

Fluency Practice

Sprint: Multiply or Divide by 7 (10 minutes)

A

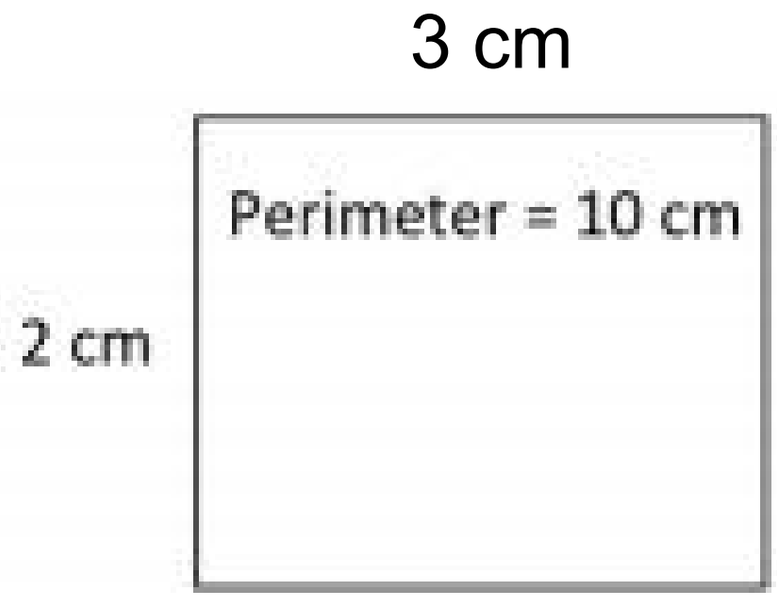
Number Correct: _____

Multiply or Divide by 7

1.	2 × 7 =		23.	___ × 7 = 70	
2.	3 × 7 =		24.	___ × 7 = 14	
3.	4 × 7 =		25.	___ × 7 = 21	
4.	5 × 7 =		26.	70 ÷ 7 =	
5.	1 × 7 =		27.	35 ÷ 7 =	
6.	14 ÷ 7 =		28.	7 ÷ 7 =	
7.	21 ÷ 7 =		29.	14 ÷ 7 =	
8.	35 ÷ 7 =		30.	21 ÷ 7 =	
9.	7 ÷ 7 =		31.	___ × 7 = 42	

Fluency Practice

Find the Area (4 minutes)



Area = ___

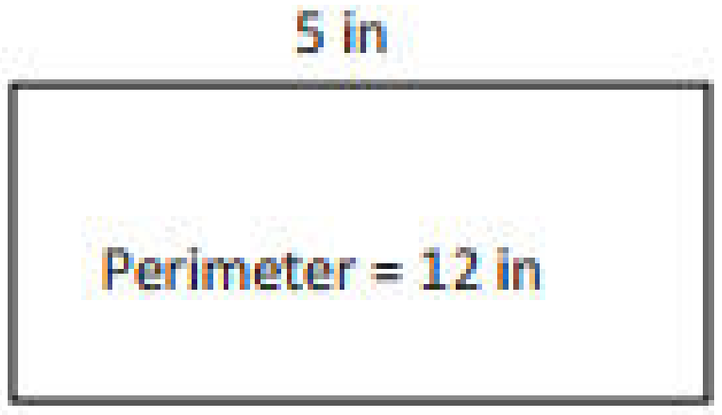
On your personal white board, write the length of this rectangle.

On your board, write the area of this rectangle. Write a multiplication sentence if you need to.

Draw a different rectangle that has the same area.

Fluency Practice

Find the Area (4 minutes)



Area = ___

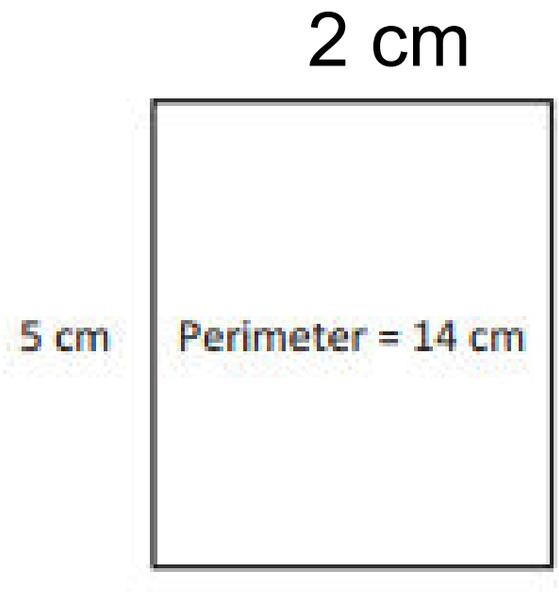
On your personal white board, write the width of this rectangle.

On your board, write the area of this rectangle. Write a multiplication sentence if you need to.

Draw a different rectangle that has the same area.

Fluency Practice

Find the Area (4 minutes)



Area = ___

On your personal white board, write the length of this rectangle.

On your board, write the area of this rectangle. Write a multiplication sentence if you need to.

Draw a different rectangle that has the same area.

Concept Development

Part A: Robot Evaluation (20 minutes)

Here is a finished robot. Let's analyze the work. How can we check the measurements and perimeter calculations?

We can use rulers to check the measurements and then add to double-check the perimeters.

Concept Development

Part A: Robot Evaluation (20 minutes)

To analyze the accuracy of this robot, I used my ruler to measure the widths and lengths of each body part and recorded them on the chart in front of you. Then, I calculated the perimeter of Rectangle A and checked it with the required perimeter, labeled in the final column. Check my calculation for Rectangle A. Does it match the required perimeter?

Yes. They are both 14 centimeters

Concept Development

Part A: Robot Evaluation (20 minutes)

Work with a partner to finish calculating the rest of the perimeters using the given lengths and widths. If you find that your measurements differ from the required perimeter, put a star by the letter of the rectangle.

What did you find?

These perimeters are all correct!

Concept Development

Part A: Robot Evaluation (20 minutes)

What is next on our list?

Checking that the body is double the perimeter of an arm and that the neck is half the perimeter of the head.

Do that now. Record your calculations, and then check your answer with a partner's.

What did you find?

It is done correctly. A perimeter of 28 centimeters for the robot's body is double 14 centimeters, and 8 centimeters for the robot's neck is half of 16 centimeters.

Concept Development

Part A: Robot Evaluation (20 minutes)

Each of you will analyze a classmate's robot just as we did this one.

Write your classmate's name on your Problem Set.

Confirm the measurements and perimeters calculated by your classmate with your ruler.

Concept Development

Part B: Robot Environment Evaluation (15 minutes)

In Part B, you will use the same process as in Part A to evaluate a different classmate's robot environment.

Each of you will use your three strings to measure non rectangular items like the sun and the tree tops.

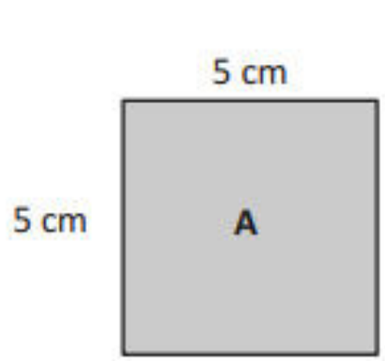
Debrief (10 minutes)

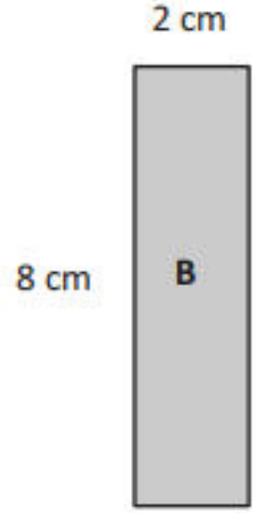
- How was the student work you checked similar to the design you created? How was it different?
- How was checking the student work different from creating your design yesterday? If you could go back and change your design, would you? If so, in what ways?
- What did you learn about the areas of rectangles that have the same perimeters? How does this help you better understand the relationship between area and perimeter?

Exit Ticket (3 minutes)

Name _____ Date _____

1. Record the perimeters and areas of Rectangles A and B in the chart below.





Rectangle:	Width and Length:	Perimeter	Area
A	_____ cm by _____ cm		
B	_____ cm by _____cm		