Eureka Math

3rd Grade
Module 7
Lesson 15

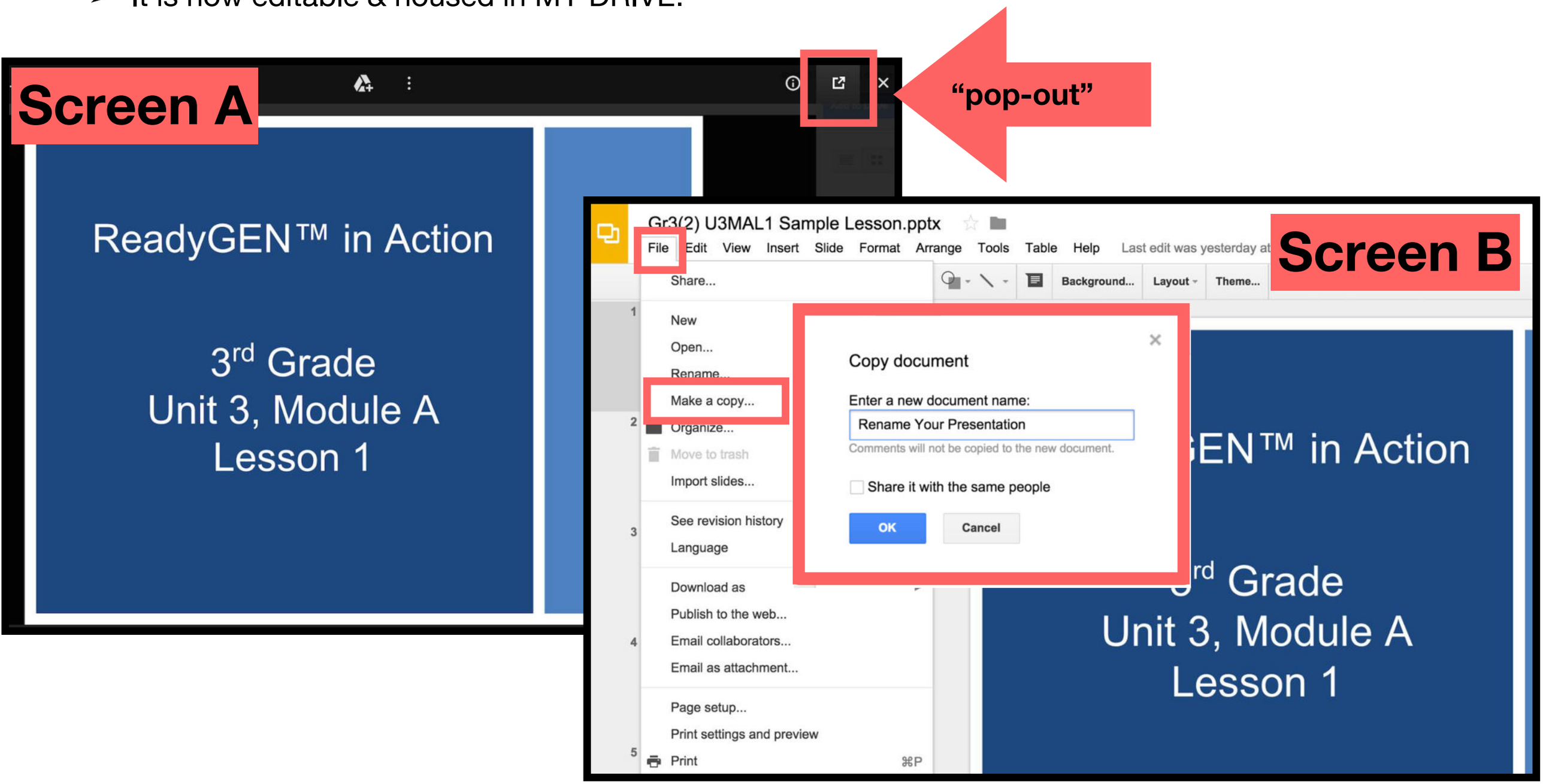
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

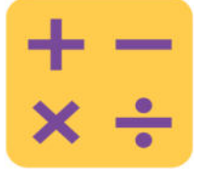
Read, Draw, Write

Learning Target

Personal White Board

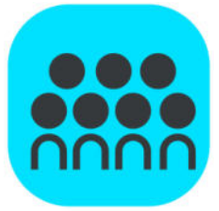
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

I can solve word problems to determine perimeter with given side lengths.

Fluency Practice

Multiply by 9

7 × 9 = x

Let’s skip-count up by nines. I’ll raise a finger for each nine.

9, 18, 27, 36, 45, 54, 63.

Let’s skip-count down by nines starting at 90. Why is 90 a good place to start?

90 (10 fingers), 81 (9 fingers), 72 (8 fingers), 63 (7 fingers).

Fluency Practice

Pattern Sheet

Multiply.

9 x 1 = _____	9 x 2 = _____	9 x 3 = _____	9 x 4 = _____
9 x 5 = _____	9 x 1 = _____	9 x 2 = _____	9 x 1 = _____
9 x 3 = _____	9 x 1 = _____	9 x 4 = _____	9 x 1 = _____
9 x 5 = _____	9 x 1 = _____	9 x 2 = _____	9 x 3 = _____
9 x 2 = _____	9 x 4 = _____	9 x 2 = _____	9 x 5 = _____
9 x 2 = _____	9 x 1 = _____	9 x 2 = _____	9 x 3 = _____
9 x 1 = _____	9 x 3 = _____	9 x 2 = _____	9 x 3 = _____
9 x 4 = _____	9 x 3 = _____	9 x 5 = _____	9 x 3 = _____

Fluency Practice

Equivalent Counting with Units of 5

Count by fives to 50.

5, 10, 15, 20, 25, 30, 35, 40, 45, 50.

Count to 10 fives.

5	10	15	20	25	30	35	40	45	50
1 five	2 fives	3 fives	4 fives	5 fives	6 fives	7 fives	8 fives	9 fives	10 fives

Fluency Practice

Equivalent Counting with Units of 5

Let’s count to 10 fives again. This time, stop when I raise my hand.

1 five, 2 fives, 3 fives.

Say the multiplication sentence.

3 × 5 = 15.

Continue. S: 4 fives, 5 fives.

Say the multiplication sentence.

5 × 5 = 25.

Continue.

6 fives, 7 fives, 8 fives.

Say the multiplication sentence.

8 × 5 = 40.

Continue.

9 fives, 10 fives.

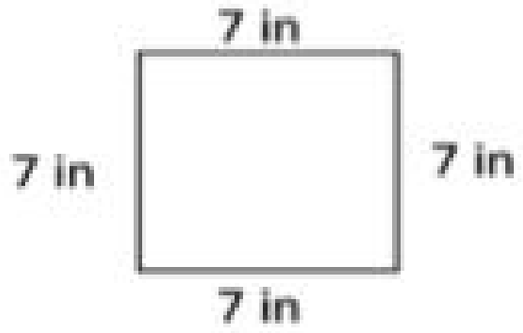
Say the multiplication sentence.

10 × 5 = 50.

Let’s count back down starting at 10 fives.

Fluency Practice

Find the Perimeter



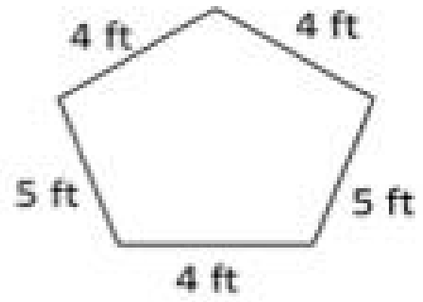
P = __ in + __ in + __ in + __ in.

Copy the equation on your personal white board, and fill in the blanks.
Then, write the perimeter of the square.

P = 7 in + 7 in + 7 in + 7 in and P = 28 in.

Fluency Practice

Find the Perimeter



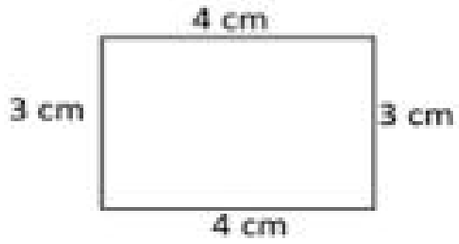
P = __ ft + __ ft + __ ft + __ ft + __ ft.

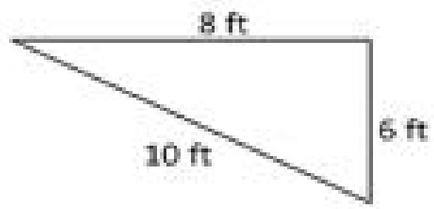
Copy the equation on your personal white board, and fill in the blanks.
Then, write the perimeter of the square.

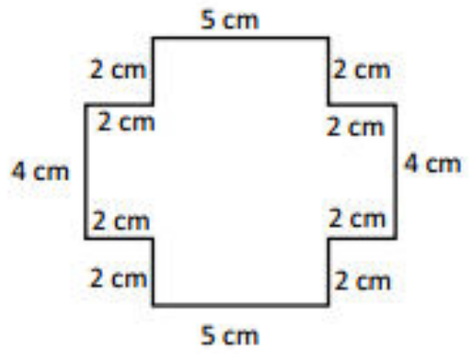
P = 4 ft + 4 ft + 4 ft + 5 ft + 5 ft = 22 ft

Fluency Practice

Find the Perimeter







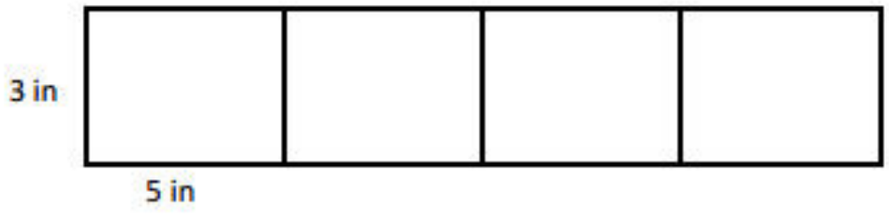
Write equations on your personal white board to find the perimeter of each shape.

Then, write the perimeter of the square.

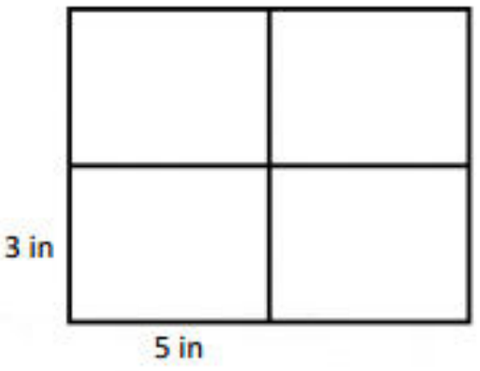
Application Problem

Clara and Pedro each use four 3-inch by 5-inch cards to make the rectangles below. Whose rectangle has a greater perimeter?

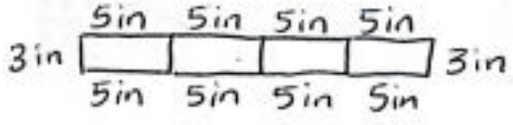
Clara's Rectangle



Pedro's Rectangle



Clara's Rectangle

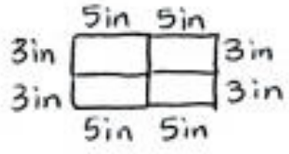


8 fives + 2 threes

P = 40in + 6in

P = 46 in

Pedro's Rectangle



4 fives + 4 threes

P = 20 in + 12 in

P = 32 in

Clara's rectangle has a greater perimeter than Pedro's rectangle.

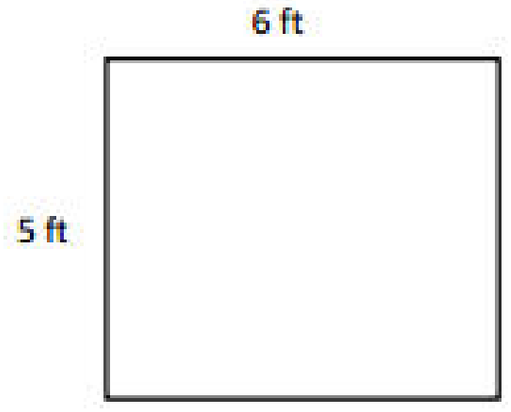
Concept Development

Mrs. Kozlow put a border around a 5-foot by 6-foot rectangular bulletin board. How many feet of border did Mrs. Kozlow use?

What can you draw to help you solve this problem?
A rectangle!

Draw and label a rectangle to represent Mrs. Kozlow's bulletin board.

How did you label the width and the length?
5 feet for the width and 6 feet for the length!



Check your rectangle against mine.

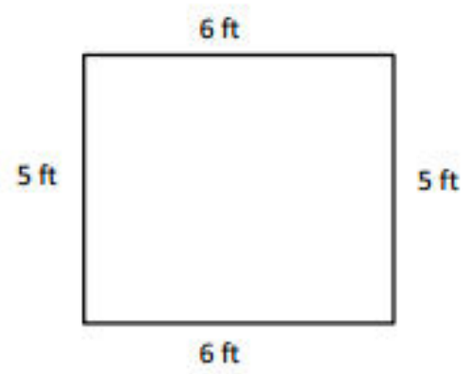
Talk to a partner. Can you find the perimeter of the bulletin board with the information in your picture?

Concept Development

Problem 1: Solve perimeter word problems with rectangles

Use what you know about rectangles to label the unknown side lengths if you didn't already.

Write a number sentence including the units to show the perimeter as the sum of the side lengths.



What is the perimeter of the bulletin board?
22 feet!

How many feet of border did Mrs. Kozlow use?
22 feet of border!

Look at your number sentence. What strategy did you use or could you use to find the perimeter?

How would you find the total amount of border Mrs. Kozlow used if she put a border around three bulletin boards that are the same size as this one?

Concept Development

Problem 2: Solve perimeter word problems with regular polygons.

Jason built a model of the Pentagon for a social studies project. He made each outside wall 33 centimeters long. What is the perimeter of Jason's model pentagon?

What can you draw to help you solve this problem?
A pentagon!

Draw and label a pentagon to represent Jason's model pentagon.

Talk to a partner. What did you label the side lengths? Why?

You labeled them 33 centimeters because it said each side is 33 centimeters long.

Write a number sentence to show the perimeter as the sum of the side lengths.
33 cm + 33 cm + 33 cm + 33 cm + 33 cm = 165 cm.

What is the perimeter of Jason's model pentagon?
165 centimeters!

Concept Development

Problem 2: Solve perimeter word problems with regular polygons.

33 cm + 33 cm + 33 cm + 33 cm + 33 cm = 165 cm

Look at your number sentence. Is there another way you can find the perimeter?

Yes, you could add 66 twice and then 33 more.

You could also multiply 33 times 5, but you might not know that fact. So, you could break apart 33 into 30 and 3. Then, I could multiply 5 times 3 tens and 5 times 3 ones and add the products. I can use the break apart and distribute strategy!

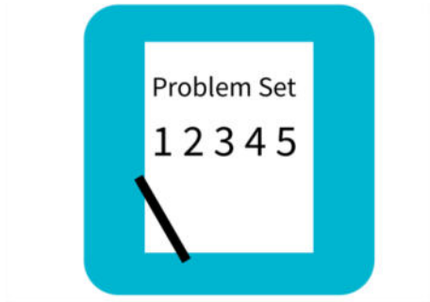
Like this…

33 x 5

30 x 5 = 150

3 x 5 = 15

150 + 15 = 165 cm



Problem Set

Students should do their personal best to complete Problems 3–6 on the Problem Set within the allotted 10 minutes.

Name _____ Date _____

1. Mrs. Kozlow put a border around a 5-foot by 6-foot rectangular bulletin board. How many feet of border did Mrs. Kozlow use?

2. Jason built a model of the Pentagon for a social studies project. He made each outside wall 33 centimeters long. What is the perimeter of Jason's model pentagon?

3. The Holmes family plants a rectangular 8-yard by 9-yard vegetable garden. How many yards of fencing do they need to put a fence around the garden?

Debrief

- Share your solution to Problem 3 with a partner. Compare your equations. How are they the same? How are they different?
- What multiplication equation could you use to solve Problem 4? What is 18 tens?
- How was solving Problems 5 and 6 different from the rest of the problems?
- Explain to a partner how you solved Problem 6. Did you use the break apart and distribute strategy? How did you use it?
- Describe a different real-world situation in which it would be necessary to find the perimeter.

Exit Ticket

Name _____ Date _____

Marlene ropes off a square section of her yard where she plants grass. One side length of the square measures 9 yards. What is the total length of rope Marlene uses?