Material List

(S) Blank paper

(S) 15 square-inch tiles per student, straight edge

(S) Personal white board

Eureka Math

3rd Grade
Module 4
Lesson 8

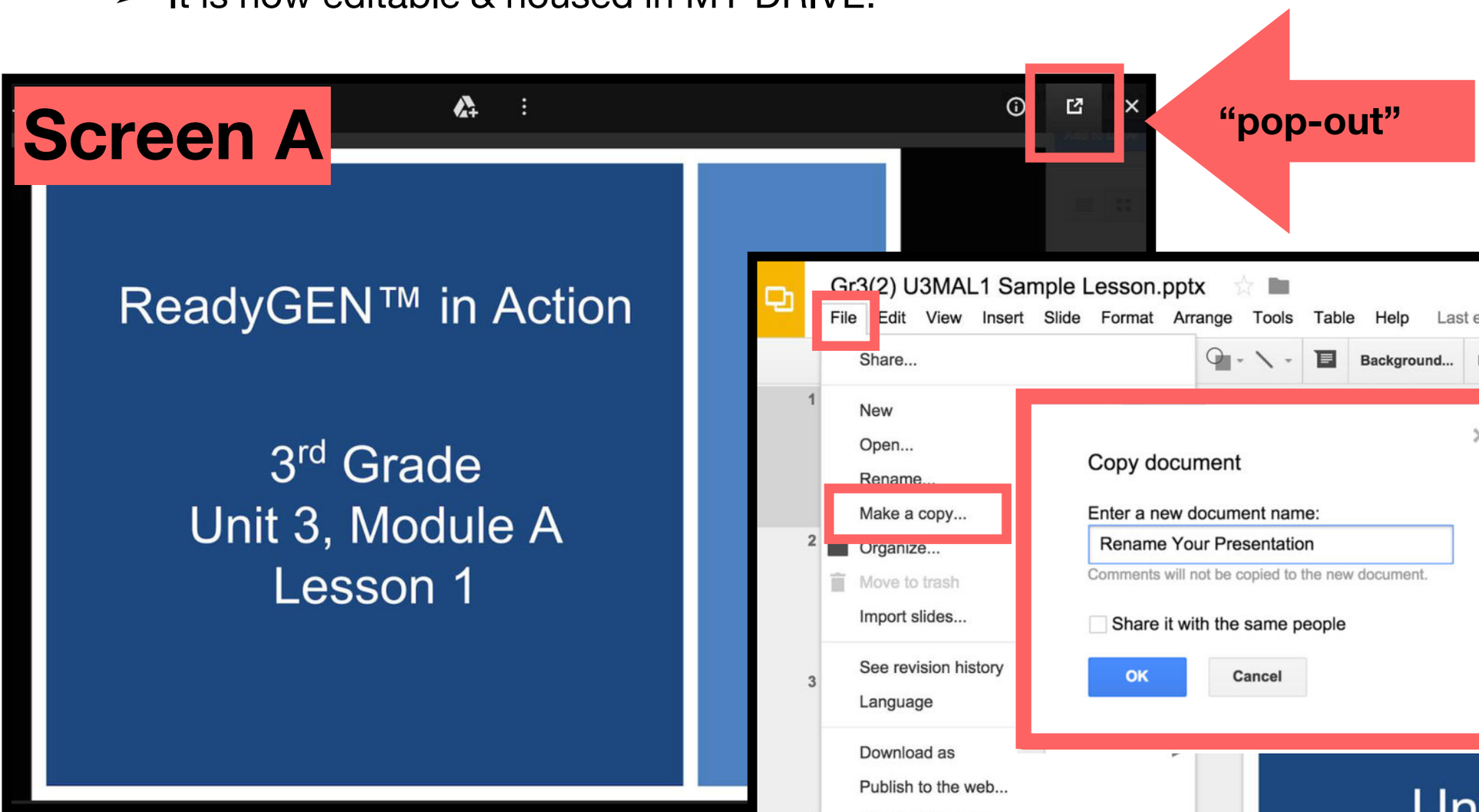
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

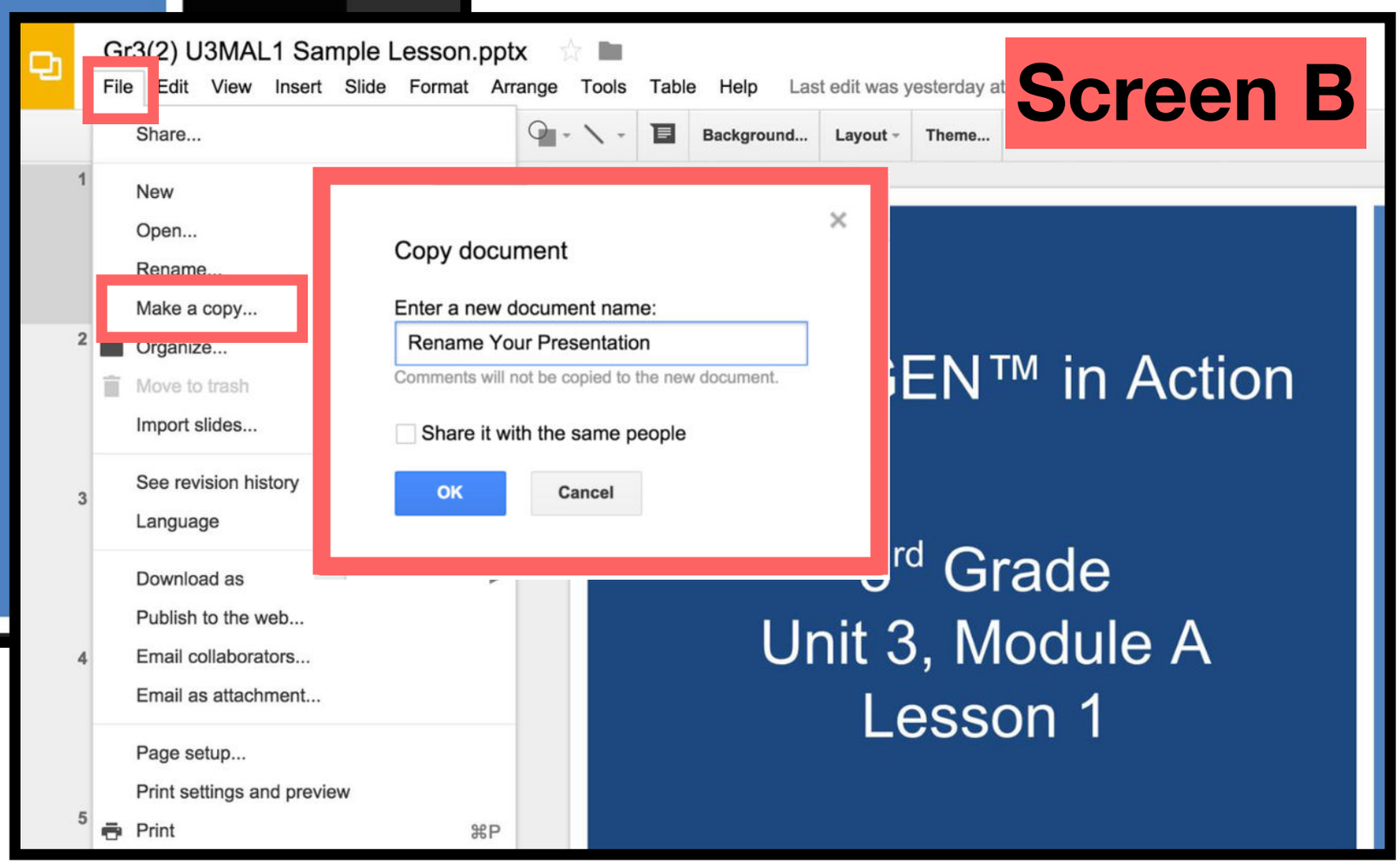
Directions for customizing presentations are available on the next slide.

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.



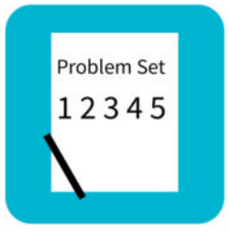


Icons

Read, Draw, Write

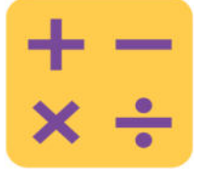
Learning Target

Personal White Board



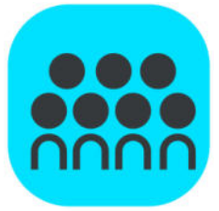
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

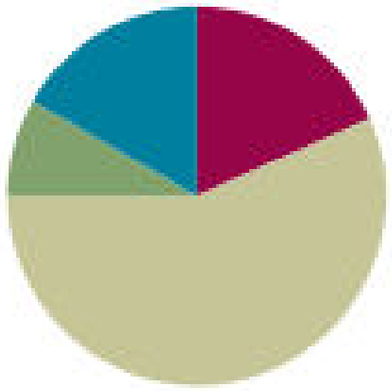
Small Group Time

Lesson 8

Objective: Find the area of a rectangle through multiplication of the side lengths.

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 find the area of rectangles by multiplying side lengths.

Fluency Practice

Multiply by 6

7 x 6

Let's skip count up by sixes. I'll use my fingers to keep track of 7 sixes.

Let's skip count down to find the answer too. I'll show 10 fingers and we'll count down from 60… and stop at 7.

Fluency Practice

Group Counting

Count forward and backward as I indicate with pointing my finger, by…

Fours to 40

Sevens to 70

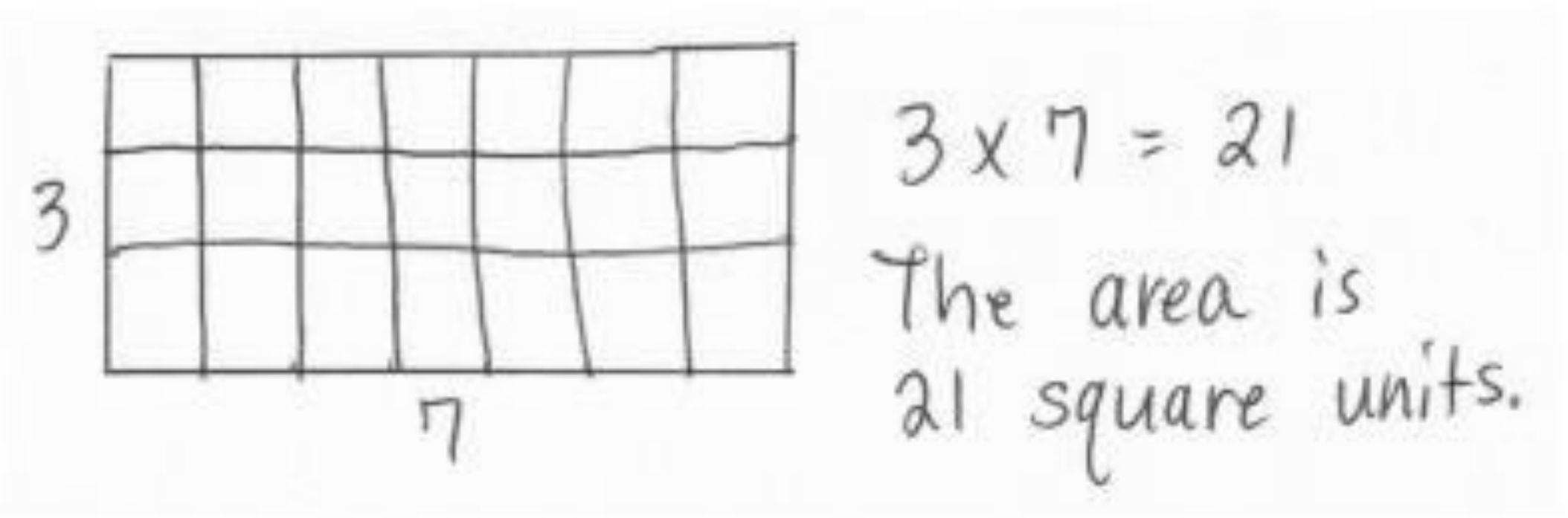
Pattern sheet: 6’s

Application Problem

Marnie and Connor both skip-count square units to find the area of the same rectangle. Marnie counts, "3, 6, 9, 12, 15, 18, 21." Connor counts, "7, 14, 21." Draw what the rectangle might look like, and then label the side lengths and find the area.

Application Problem

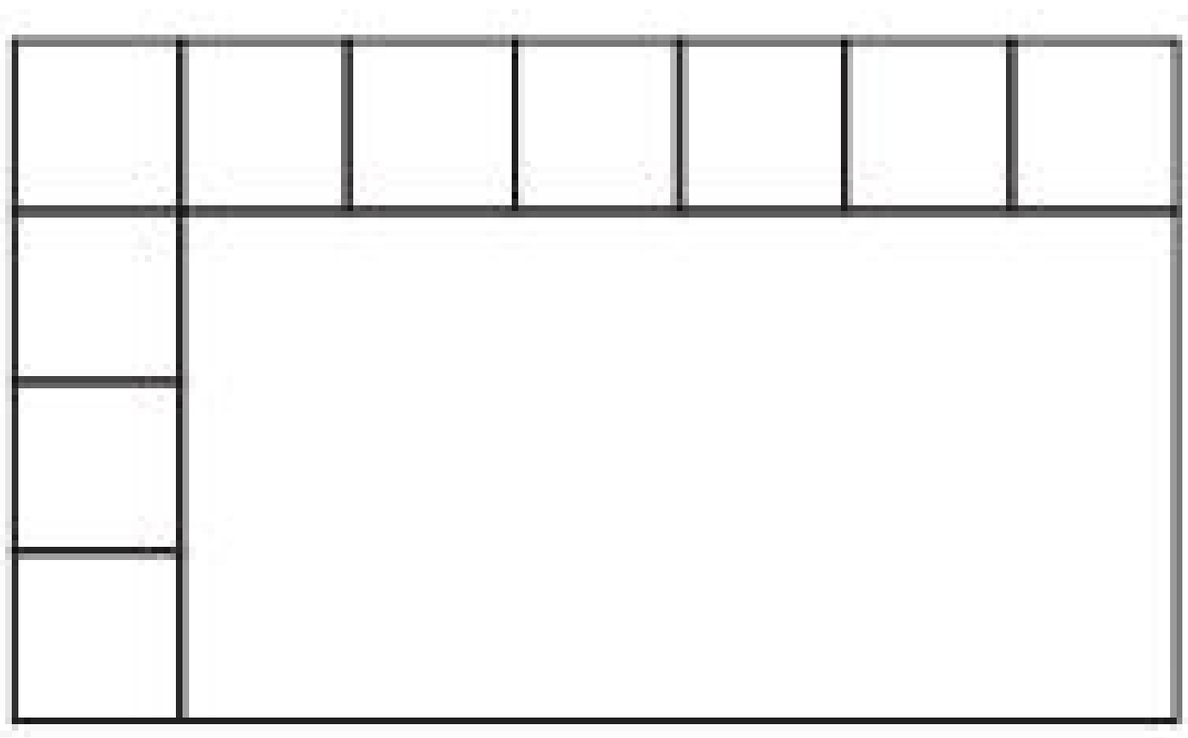
Marnie and Connor both skip-count square units to find the area of the same rectangle. Marnie counts, "3, 6, 9, 12, 15, 18, 21." Connor counts, "7, 14, 21." Draw what the rectangle might look like, and then label the side lengths and find the area.



Concept Development

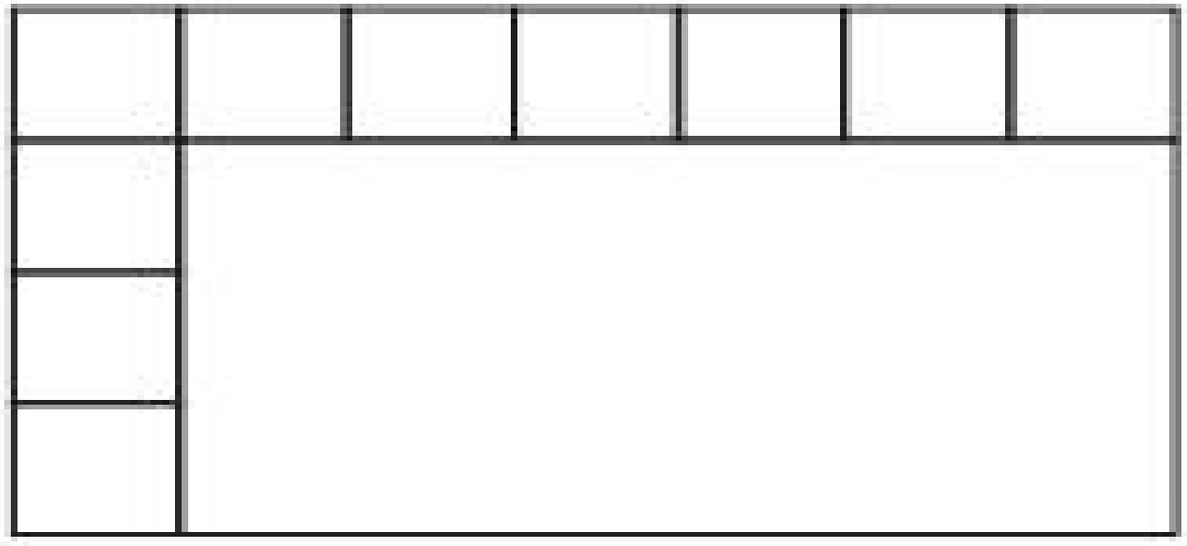
Materials: Grid Template

How many rows are in the incomplete array?



How many square units are in each row?

Concept Development

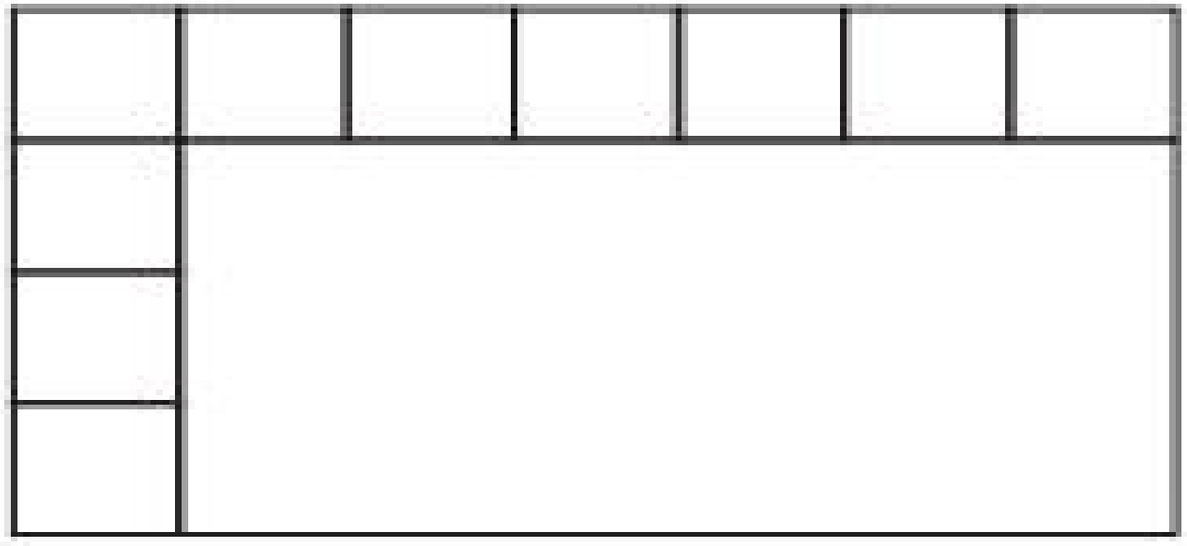


Talk to your partner: Do we need to complete the array to find the area of the rectangle? Why or why not?

How are the side lengths related to the area?

Talk to a partner: Can you multiply any two side lengths to find the area?

Concept Development

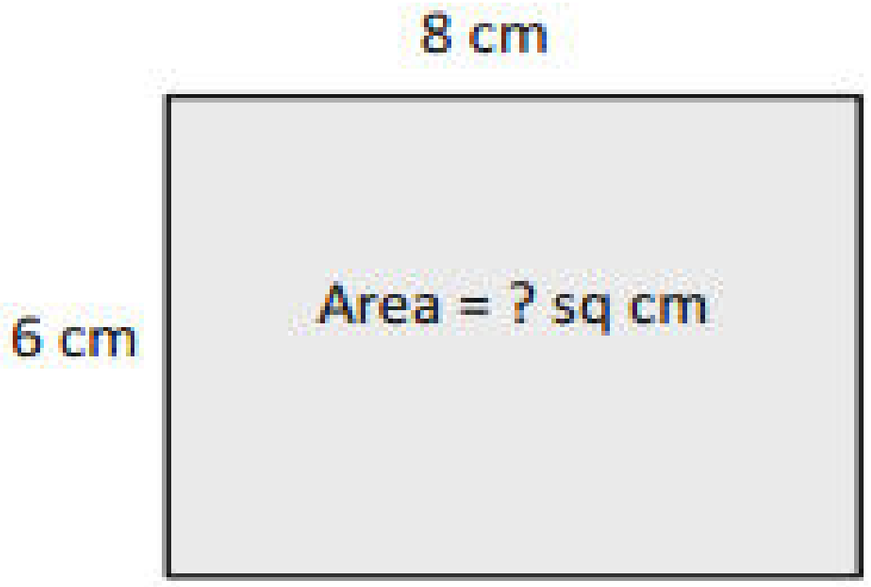


What multiplication equation can be used to find the area of this rectangle?

Answer (on click) **4 x 7**

Concept Development

What do you notice about this rectangle?

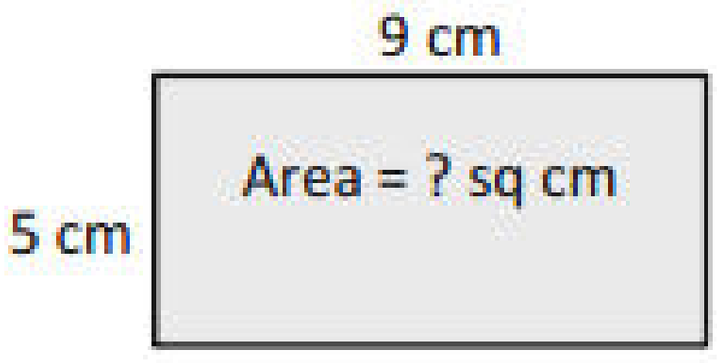


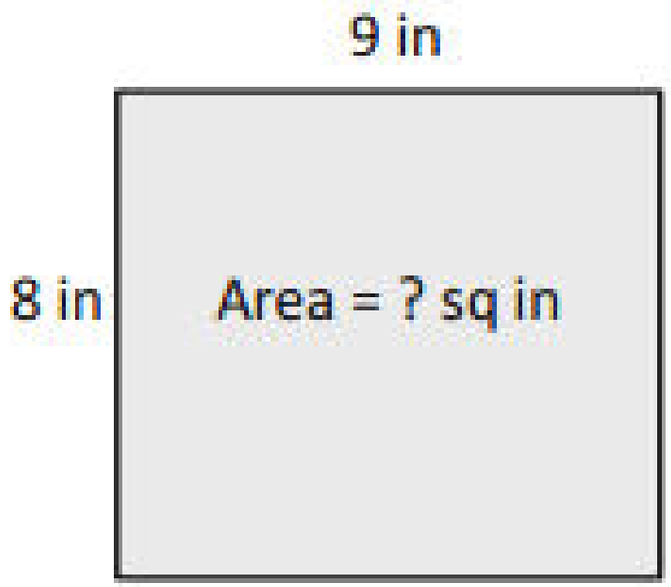
Do we still have enough information to find the area of this rectangle, even without grid lines

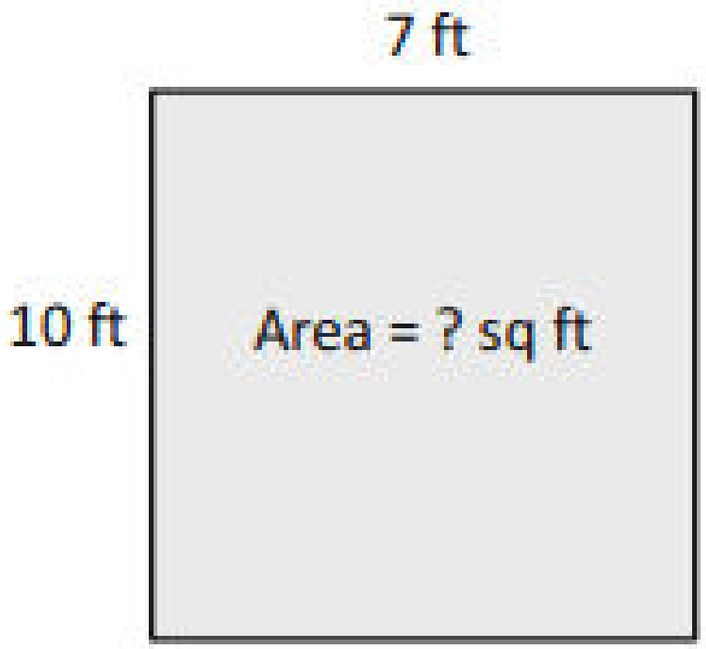
Write the multiplication equation to find the area of this rectangle.

Concept Development

Continue working with the following examples.



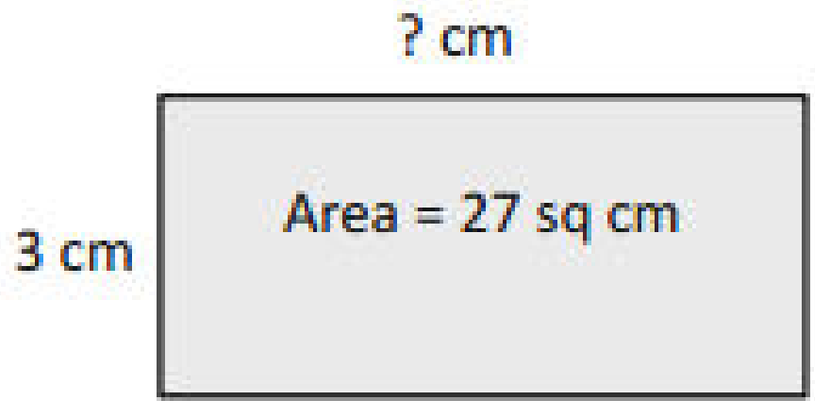




Concept Development

Use area and side Length to find unknown side lengths

What do you notice about this rectangle?



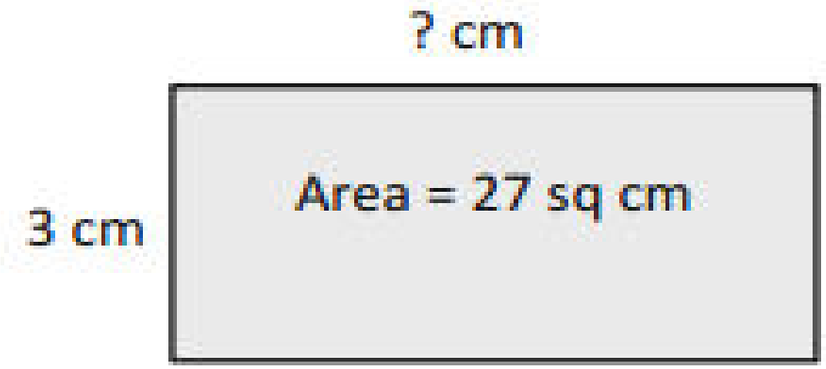
Write a multiplication equation on your personal white board to show how to find the area of this rectangle. Use a question mark for the unknown side length.

Answer: (on click) **3 x ? = 27**

Concept Development

Use area and side Length to find unknown side lengths

3 x ? = 27



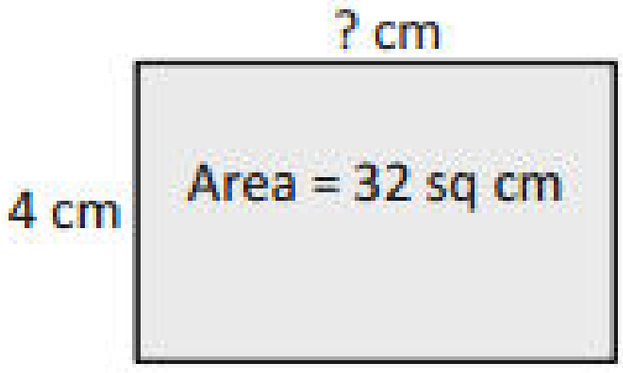
What is the value of the question mark? How do you know?

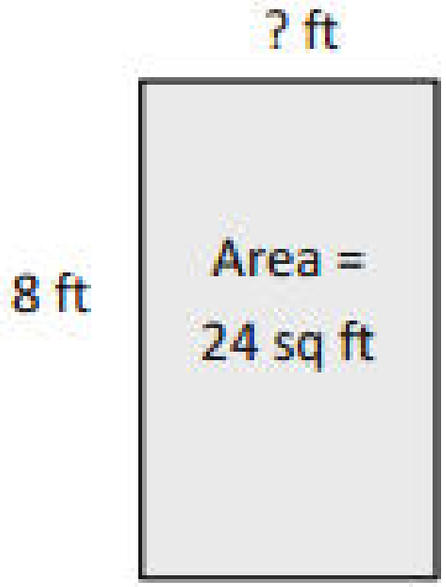
Can you write the related division problem on your whiteboard?

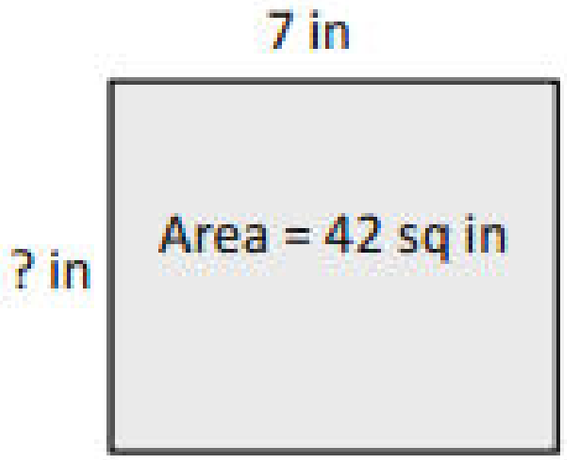
27 ÷ 3 = 9

Concept Development

Continue with the following suggested examples:







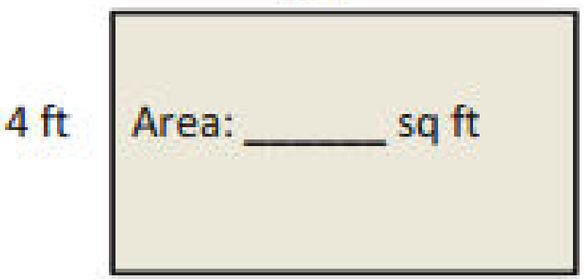
When you know the area and one side length of a rectangle, how can you find the other side length?

Problem Set

Name _____ Date _____

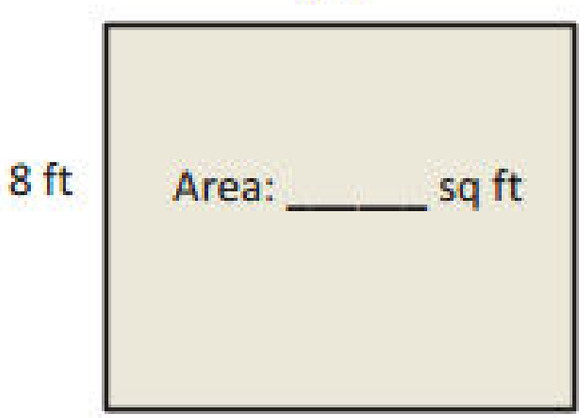
1. Write a multiplication equation to find the area of each rectangle.

a.



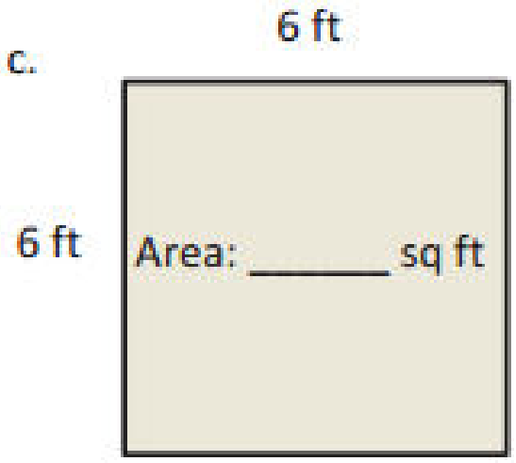
_____ × _____ = _____

b.



_____ × _____ = _____

c.



_____ × _____ = _____

2. Write a multiplication equation and a division equation to find the unknown side length for each rectangle.

ft

6

Debrief

<u>Any combination of the questions below may be used to lead the discussion.</u>

- In what way is the area of Problem 1(b) related to the area of Problem 1(a)?

- How could you use the side lengths to help you figure out that 8 × 7 is double 4 × 7?

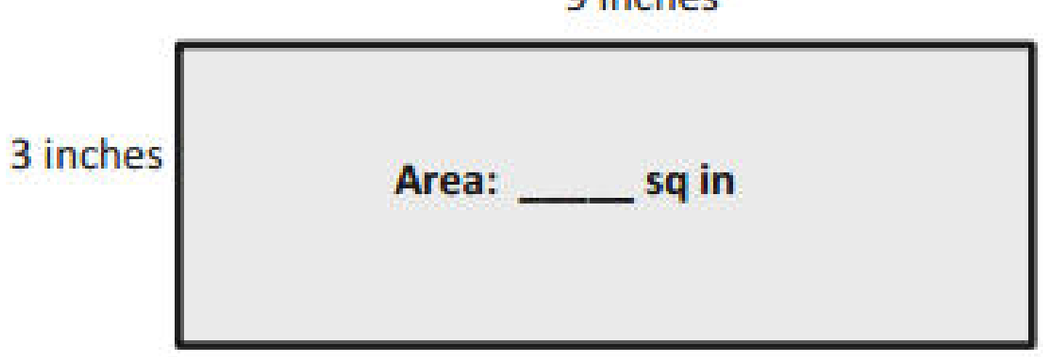
- Which shape in Problem 1 is a square? How do you know?

- How are the rectangles in Problem 1(a) and 2(c) similar? How are they different?

Exit Ticket

Name _____ Date _____

1. Write a multiplication equation to find the area of the rectangle below.



_____ × _____ = _____

2. Write a multiplication equation and a division equation to find the unknown side length for the rectangle below.