Material List

(S) Blank paper

(S) square-centimeter and square-inch tiles, centimeter grid (template 1) and inch grid (Template 2), and ruler

(S) Personal white board

Eureka Math

3rd Grade
Module 4
Lesson 3

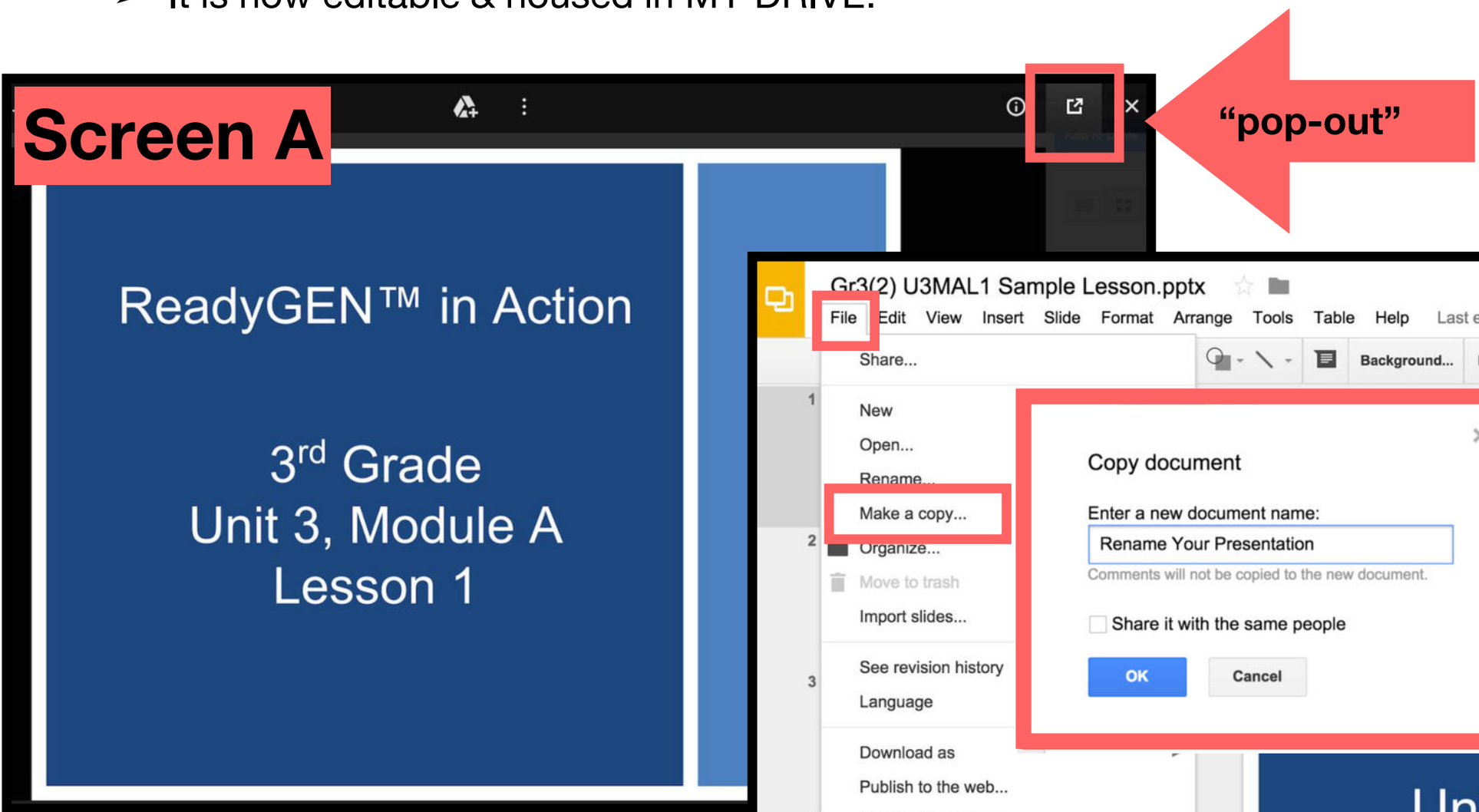
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

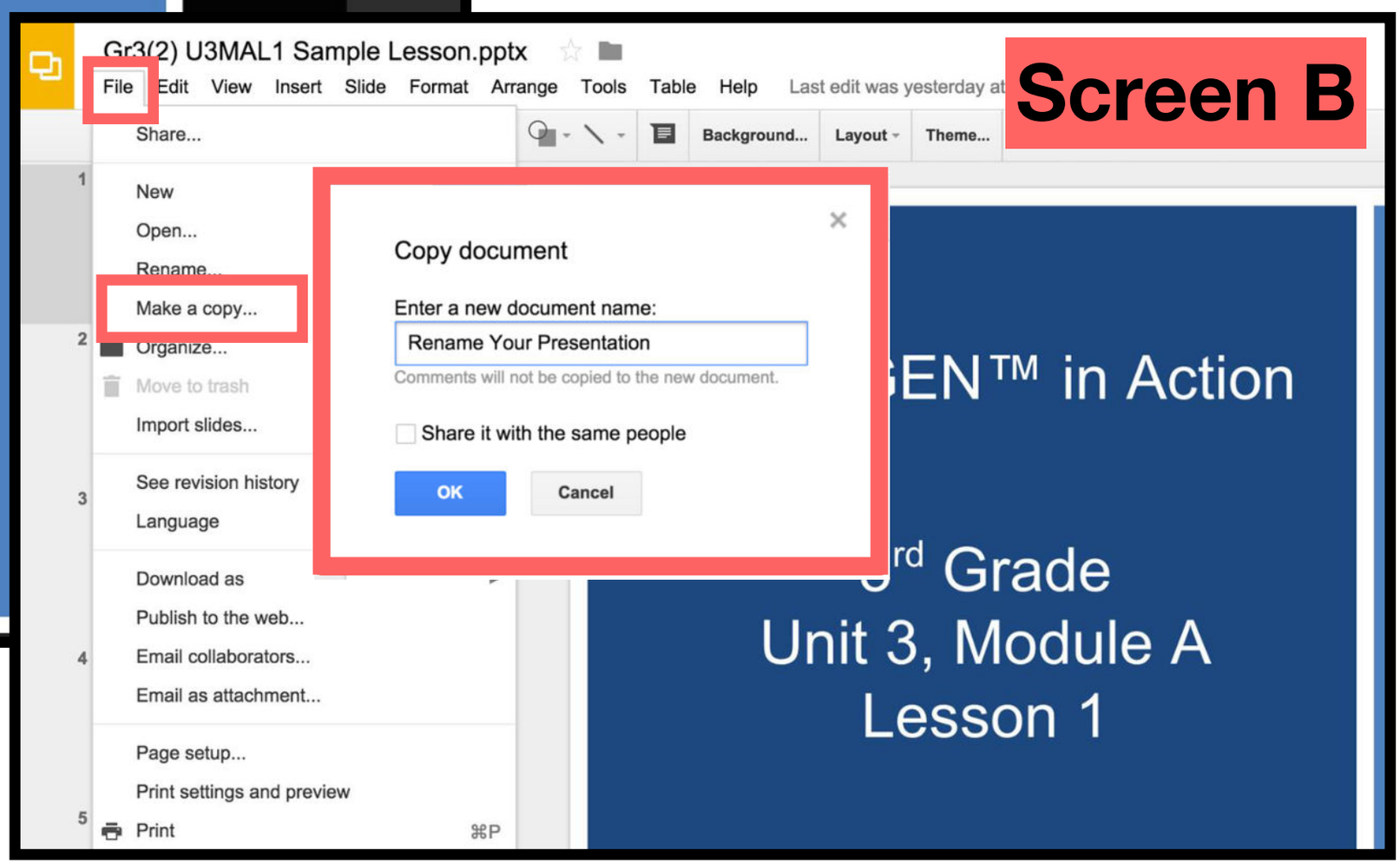
Directions for customizing presentations are available on the next slide.

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.



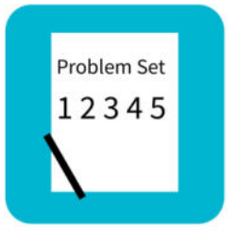


Icons

Read, Draw, Write

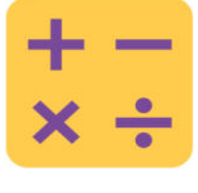
Learning Target

Personal White Board



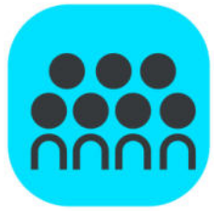
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

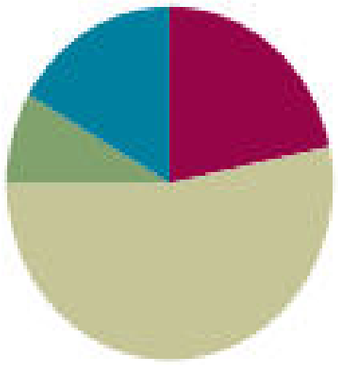
Small Group Time

Lesson 3

Objective: Model tiling with centimeter and inch unit squares as a strategy to measure area.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



I can model tiling with unit squares to measure area.

Fluency Practice

Find the Common Products

Count by 3's to 30 and count by 6's to 60

Match the multiples in each column.

3	6
6	12
9	18
12	24
15	30
18	36
21	42
24	48
27	54
30	60

Complete the unknown factors:

___ × 3 = 6
___ × 3 = 12
___ × 3 = 18
___ × 3 = 24
___ × 3 = 30

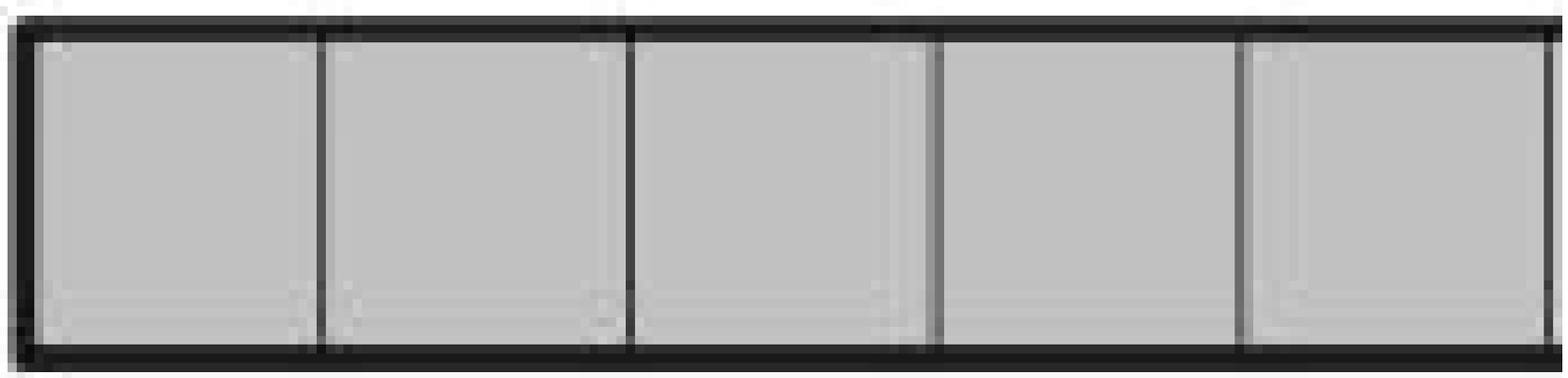
6 = ___ × 6
12 = ___ × 6
18 = ___ × 6
24 = ___ × 6
30 = ___ × 6

$2 \times 3 = 1 \times 6$
$4 \times 3 = 2 \times 6$
$6 \times 3 = 3 \times 6$
$8 \times 3 = 4 \times 6$
$10 \times 3 = 5 \times 6$

Fluency Practice

Count the square units

What's the area of the rectangle?



5 square units

Fluency Practice

Find the Common Products

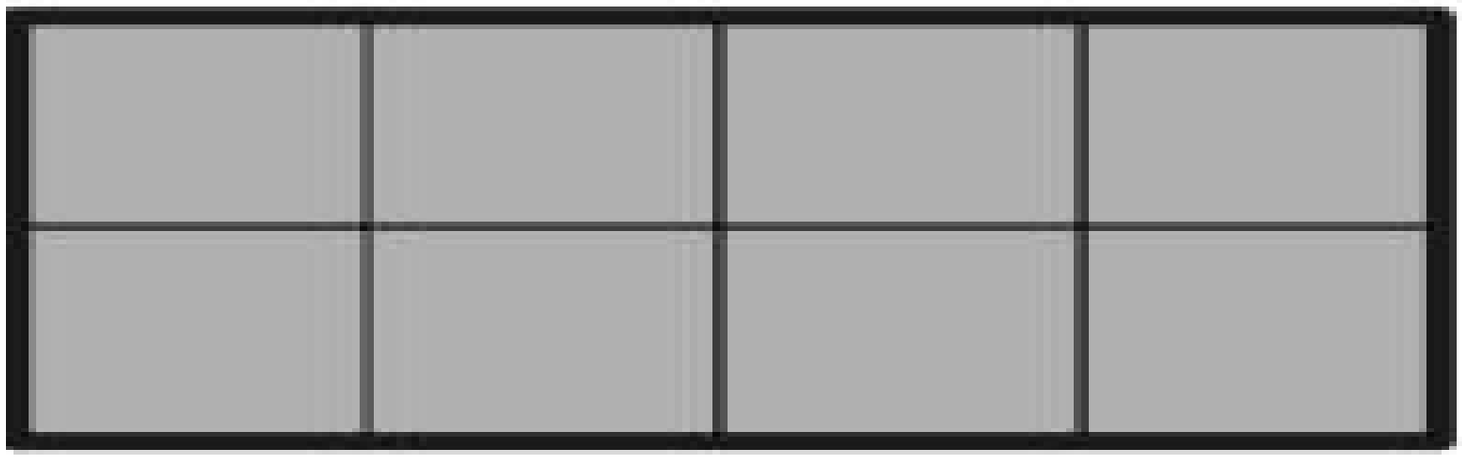
What's the area of the rectangle?

6 square units

Fluency Practice

Find the Common Products

What's the area of the rectangle?

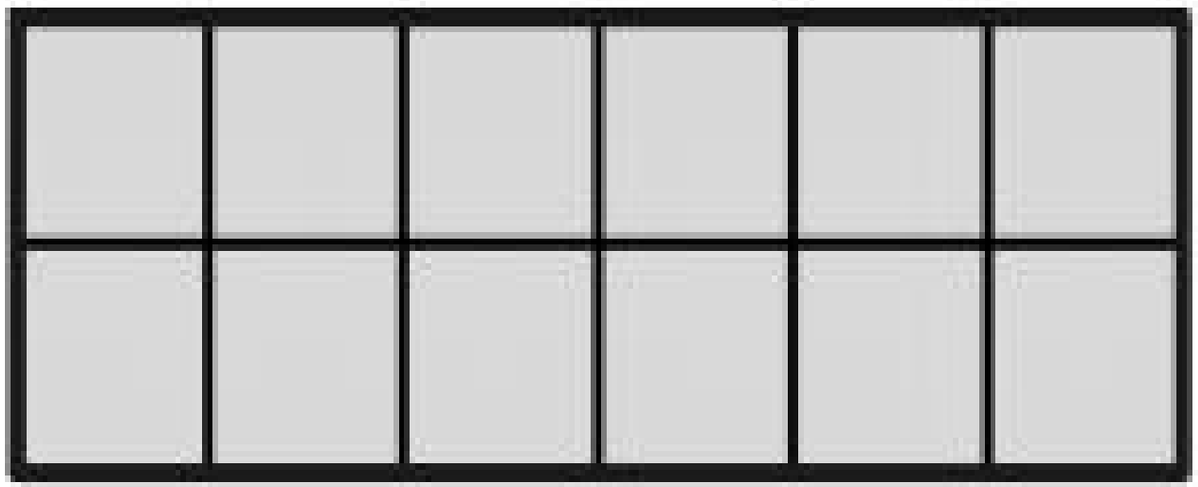


8 square units

Fluency Practice

Find the Common Products

What's the area of the rectangle?

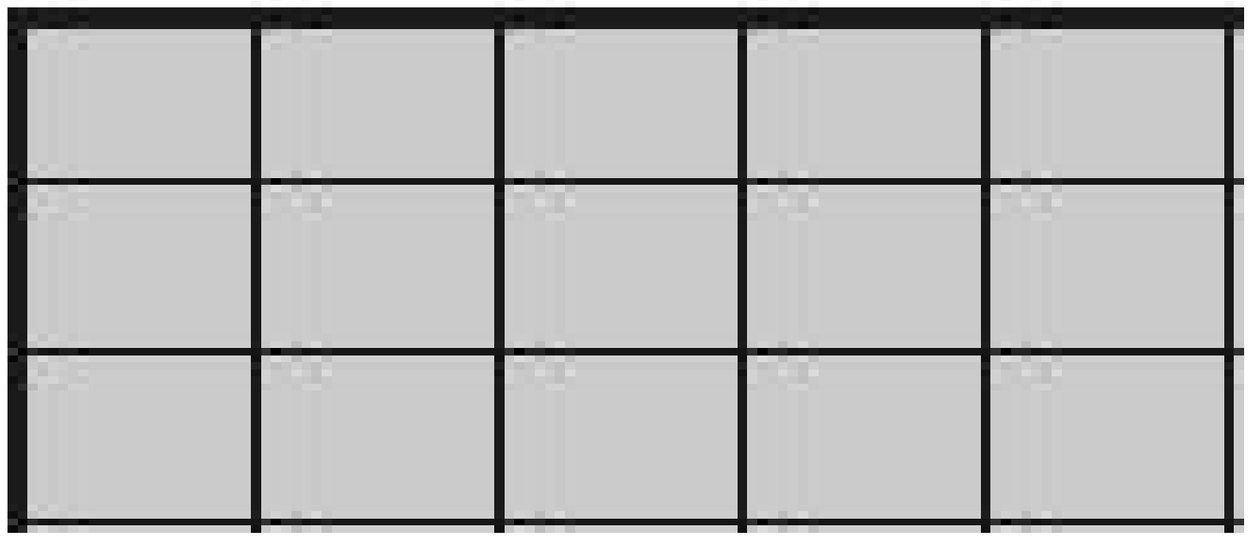


12 square units

Fluency Practice

Find the Common Products

What's the area of the rectangle?



15 square units

Application Problem

Jace uses paper squares to create a rectangle. Clary cuts all of Jace's square in half to create triangles. She uses all the triangles to make a rectangle. There are 16 triangles in Clary's rectangle. How many squares were in Jace's shape?

Use the RDW (Read, Draw, Write) process to show your solution.

RDW Application Problem

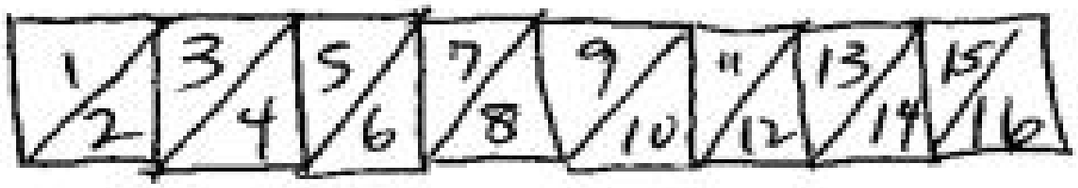
The following are possible student solutions:

- Dividing

$16 \div 2 = 8$

There were 8 squares in Jace's shape.

- Drawing a picture



$16 \div 2 = 8$

- Skip-counting by twos

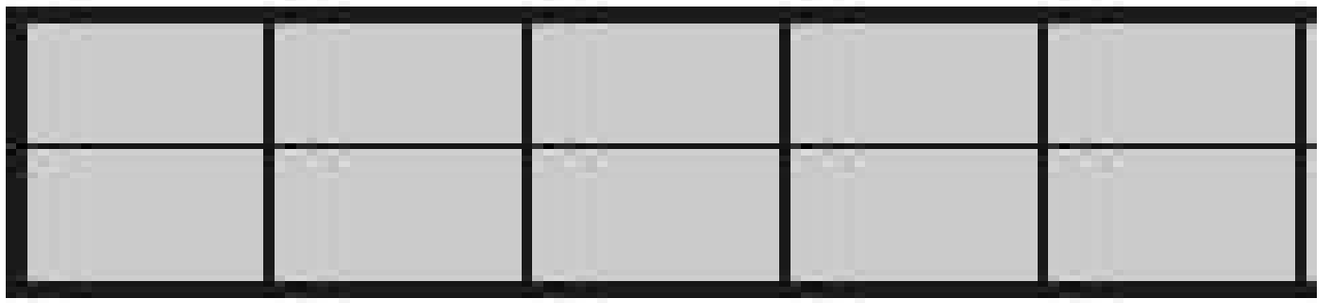
2, 4, 6, 8, 10, 12, 14, 16 8 twos

$16 \div 2 = 8$

There were **8 squares** in Jace's shape.

Concept Development

Arrange 10 square-centimeters tiles into 2 equal rows.



What's the area of the rectangle?

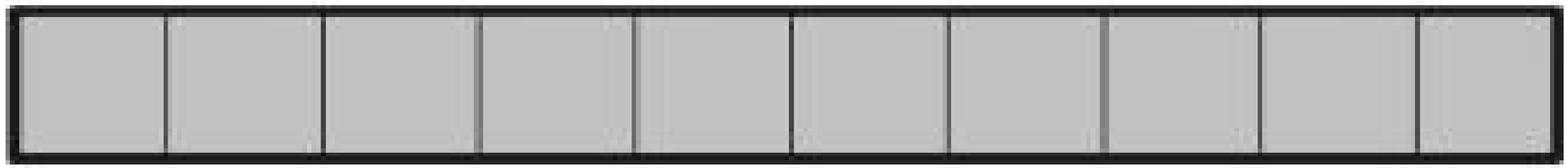
10 square units

Is there another way to arrange all of your tiles to make a rectangle?

Concept Development

Arrange your tiles in

1 row of 10.



What is the area now?

10 square units

Concept Development

Use your ruler to measure all four sides of a tile in centimeters.

Can we define these units more precisely?

Yes, all four sides measure 1 centimeter, so they are square centimeters.

Concept Development

What is the area of your rectangle in square centimeters?

10 centimeters

Concept Development

Pass out centimeter grid.

*Please slip the grid paper into your personal white board.

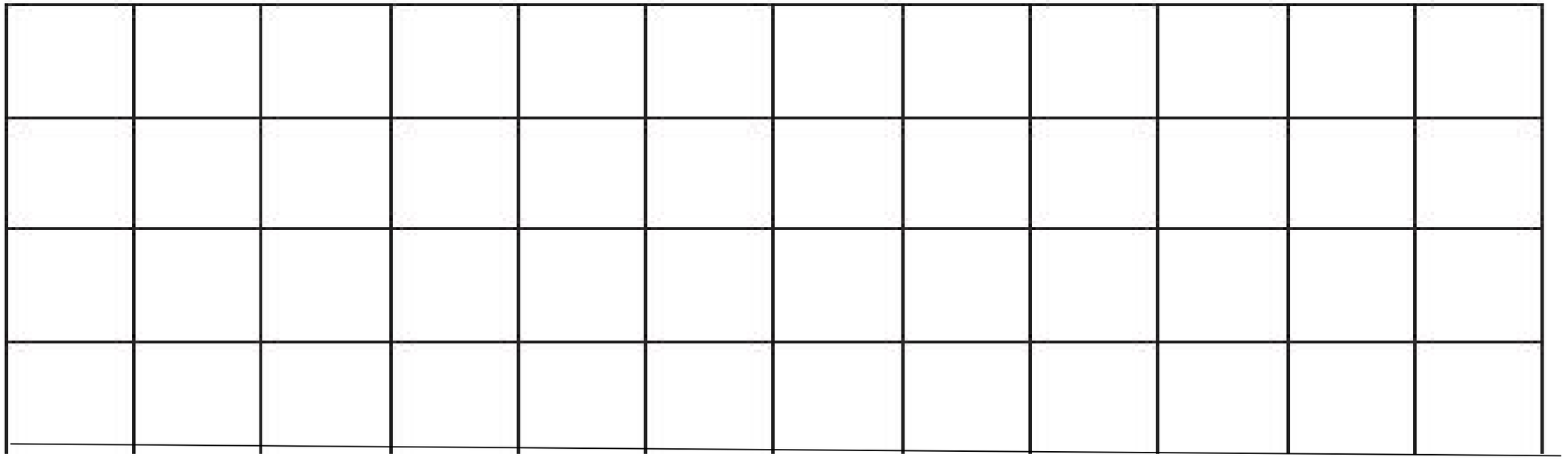
*Each side of the squares in the grid measure 1 centimeter.

How is this grid paper like the tiles we used?

They are both square centimeters.

Concept Development

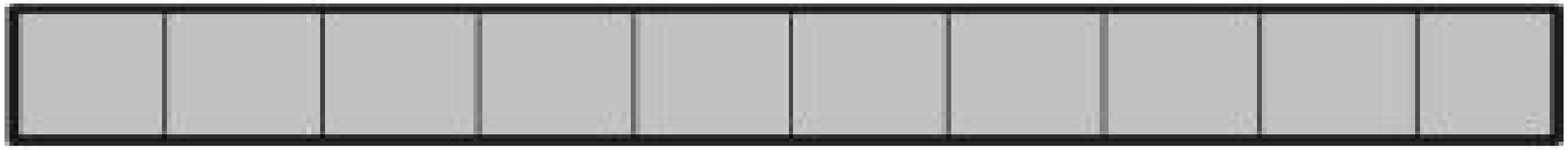
Shade the grid paper to represent
the rectangle you made with tiles.



10 square centimeters

Concept Development

Remove a tile from your rectangle.

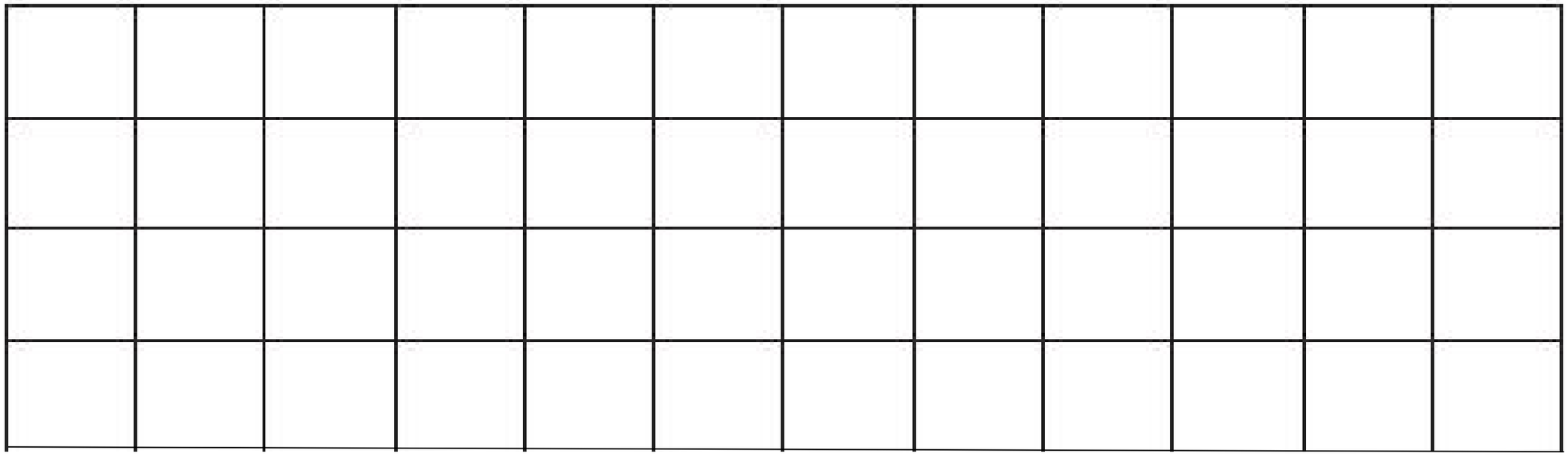


What is the area now?

9 square centimeters

Concept Development

How can you change the rectangle on the grid paper to have the same area as your rectangle?



Erase one of the squares.

Concept Development

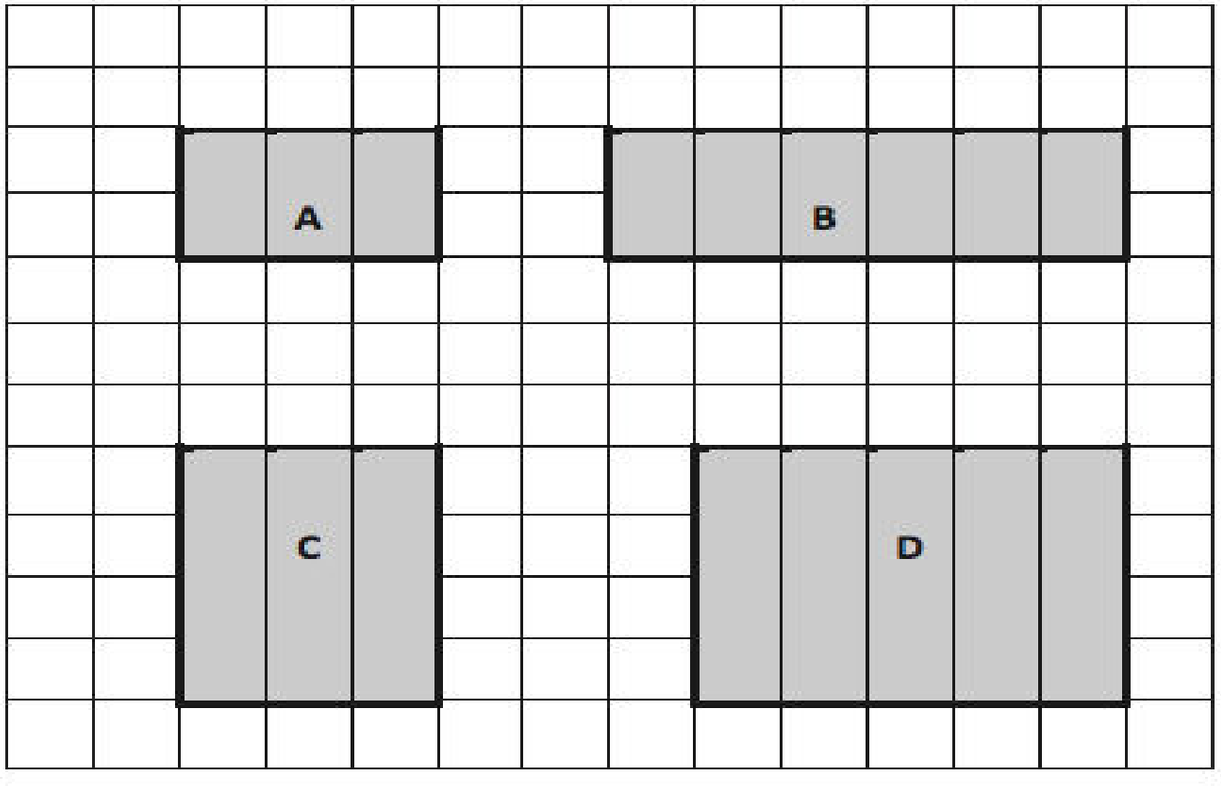
What is the area of the shaded rectangle?

9 square centimeters

Problem Set

Name _____ Date _____

1. Each ☐ is 1 square unit. What is the area of each of the following rectangles?



A: _____ square units

B: _____

C: _____

D: _____

Debrief

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

*How are the rectangles in Problems 1 (b) and 1 © the same? How are they different?

*How are the rectangles in Problems 1 (a) and 2 (a) the same? How are they different?

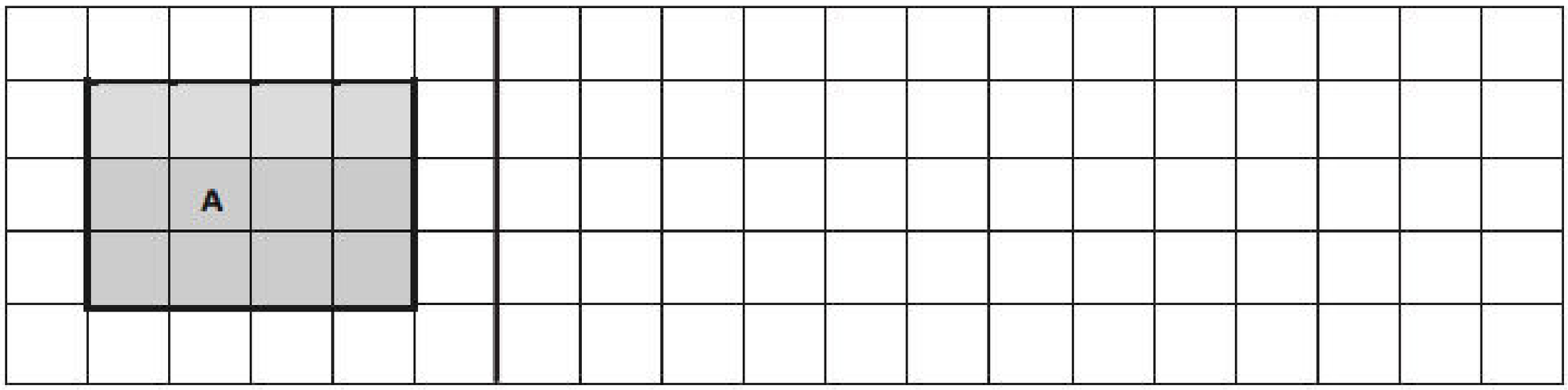
*Which rectangle in Problem 2 has the biggest area? How are you know?

*Compare the rectangles you made in Problem 4 with a partner's rectangles. How are they same? How are they different?

Exit Ticket

Name _____ Date _____

1. Each ☐ is 1 square unit. Write the area of Rectangle A. Then, draw a different rectangle with the same area in the space provided.



Area = _____