



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 5

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.



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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.

The image displays two screenshots of a Google Slides presentation. The left screenshot, labeled "Screen A", shows a slide with the text "ReadyGEN™ in Action" and "3rd Grade Unit 3, Module A Lesson 1". The right screenshot, labeled "Screen B", shows the same slide but with the Google Slides interface overlaid. A red box highlights the "pop-out" button in the top right corner of the browser window. A red arrow points to this button with the text "pop-out". Another red box highlights the "File" menu in the top left of the Google Slides interface. A third red box highlights the "Make a copy..." option in the File menu. A fourth red box highlights a "Copy document" dialog box that is open, showing the "Enter a new document name:" field with the text "Rename Your Presentation" and "OK" and "Cancel" buttons.

Screen A

ReadyGEN™ in Action

3rd Grade
Unit 3, Module A
Lesson 1

Screen B

Gr3(2) U3MAL1 Sample Lesson.pptx

File Edit View Insert Slide Format Arrange Tools Table Help Last edit was yesterday at

Share...

New

Open...

Rename...

Make a copy...

Organize...

Move to trash

Import slides...

See revision history

Language

Download as

Publish to the web...

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Print

Copy document

Enter a new document name:

Rename Your Presentation

Comments will not be copied to the new document.

Share it with the same people

OK Cancel

Icons



Read, Draw, Write



Learning Target



Personal White Board



Problem Set



Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



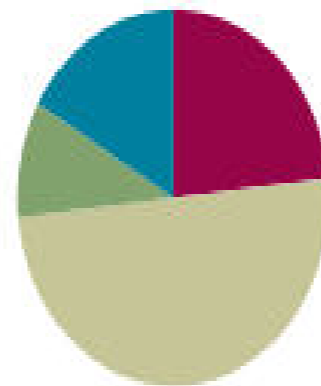
Small Group Time

Lesson 5

Objective: Form rectangles by tiling with unit squares to make arrays.

Suggested Lesson Structure

■ Fluency Practice	(14 minutes)
■ Application Problem	(6 minutes)
■ Concept Development	(30 minutes)
■ Student Debrief	(10 minutes)
Total Time	(60 minutes)





I can form rectangles
by tiling with unit
squares to make
arrays.



Fluency Practice

Group Counting

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

Threes to 30



Fluency Practice

Group Counting

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

Sixes to 60



Fluency Practice

Group Counting

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

Sevens to 70

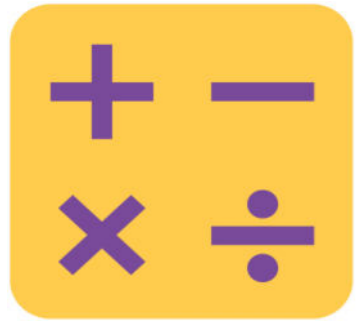


Fluency Practice

Group Counting

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

Nines to 90



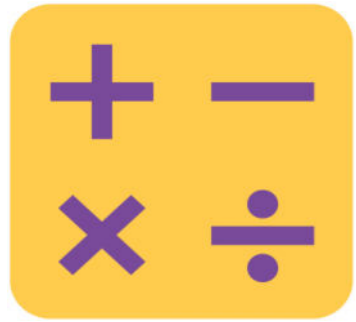
Fluency Practice

Products in an Array



How many rows of stars do you see?

4 rows



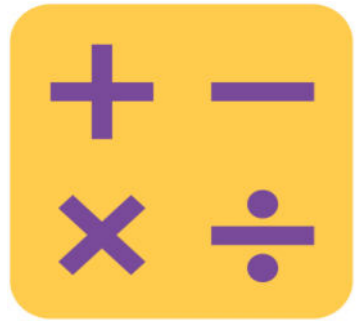
Fluency Practice

Products in an Array



How many stars are in each row?

3 stars



Fluency Practice

Products in an Array



On your personal white board, write two different multiplication sentences that can be used to find the total number of stars.

$$4 \times 3 = 12 \text{ and } 3 \times 4 = 12$$



Fluency Practice

Find the Common Products

Count by 4's to 40 and count by 8's to 80

Match the multiples in each column.

4	8
8	16
12	24
16	32
20	40
24	48
28	56
32	64
36	72
40	80

Next to each matched product on the left half of the paper.) Write the rest of the equations like I did.

$$\begin{array}{l} 2 \times 4 = 8 \\ 4 \times 4 = 16 \\ 6 \times 4 = 24 \\ 8 \times 4 = 32 \\ 10 \times 4 = 40 \end{array}$$

Next to each matched product on the right half of the paper.) Write the rest of the equations like I did.

$$\begin{array}{l} 1 \times 8 = 8 \\ 2 \times 8 = 16 \\ 3 \times 8 = 24 \\ 4 \times 8 = 32 \\ 5 \times 8 = 40 \\ 6 \times 8 = 48 \\ 7 \times 8 = 56 \\ 8 \times 8 = 64 \\ 9 \times 8 = 72 \\ 10 \times 8 = 80 \end{array}$$



Application Problem

Candice uses square centimeter tiles to find the side lengths of a rectangle as shown on the right. She says the side lengths are 5 centimeters and 7 centimeters. Her partner, Luis, uses a ruler to check Candice's work and says that the side lengths are 5 centimeters and 6 centimeters. Who is right? How do you know?



Application Problem

Candice uses square centimeter tiles to find the side lengths of a rectangle as shown on the right. She says the side lengths are 5 centimeters and 7 centimeters. Her partner, Luis, uses a ruler to check Candice's work and says that the side lengths are 5 centimeters and 6 centimeters. Who is right? How do you know?

Candice is right because she used square centimeter tiles to find the side lengths and when I counted the tiles there were 5 on one side 7 on the other side. That means that the side lengths are 5 cm and 7 cm.



Concept Development

What information do we know?

2 in



Use tiles to make the known side.



Concept Development

How many total tiles will we use to make our rectangles?

2 in



Area= 12 square inches

12 tiles



Concept Development

How many twos are in 12?

2 in



Area= 12 square inches

6 twos.



Concept Development

Use your tiles to make 6 sets of twos, then skip-count to check your work.

2 in



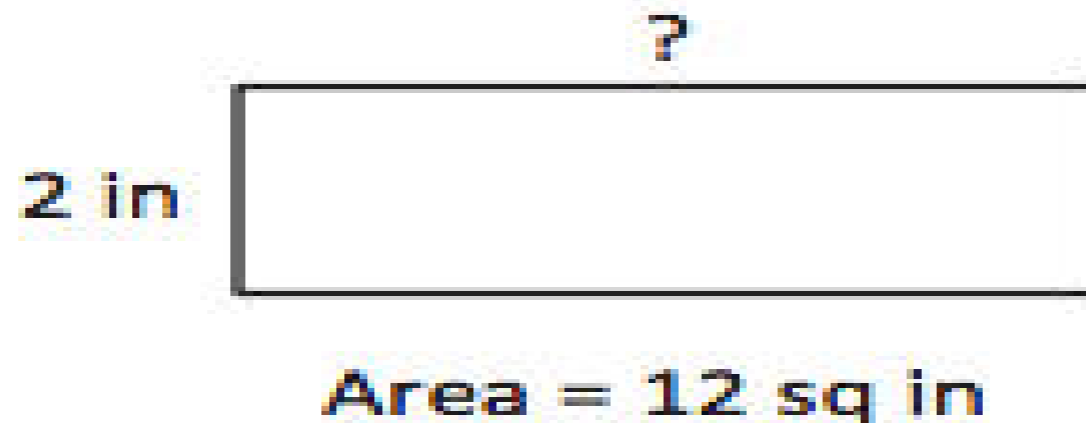
Push your twos together to make a rectangle.

What is the unknown side length?



Concept Development

Tell your partner about the relationship between the side lengths and the area. Write an equation to show your thinking. Be sure to include the units.



2 inches \times 6 inches = 12 square inches,
so the area is the product of the side
lengths.



Concept Development

Use tiles to make a side 3 inches tall.

Trace the outline of all three tiles.

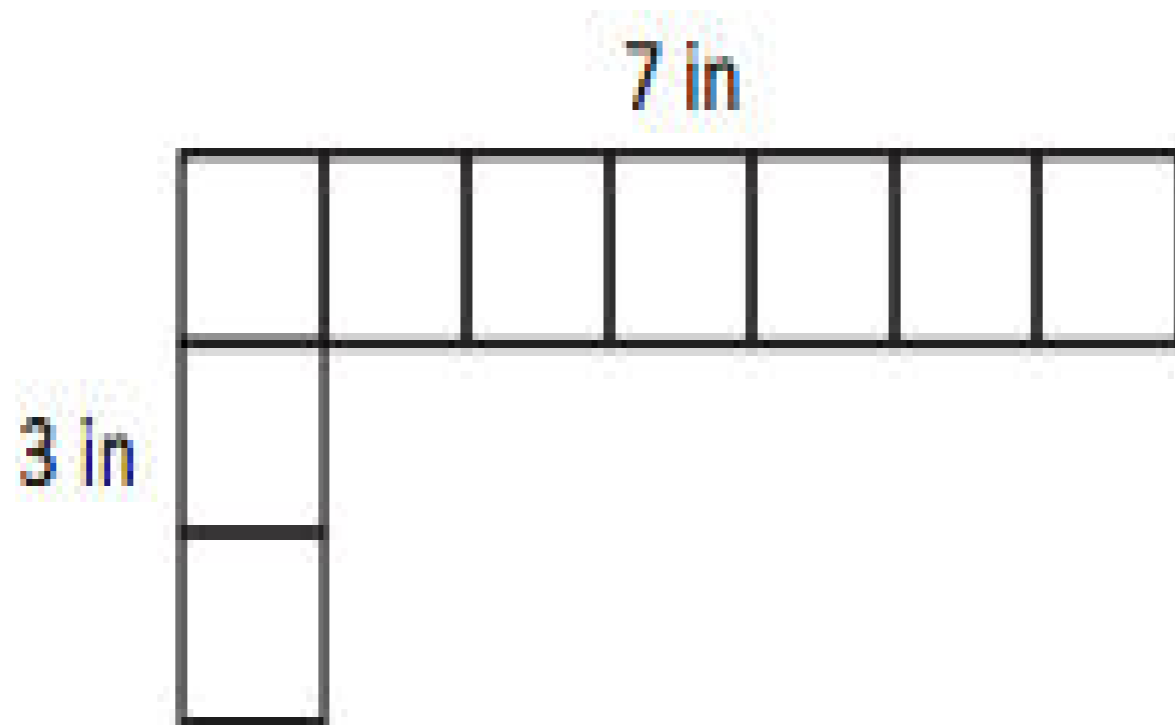


Label the side length.



Concept Development

Use tiles to make another side 7 inches long and trace.

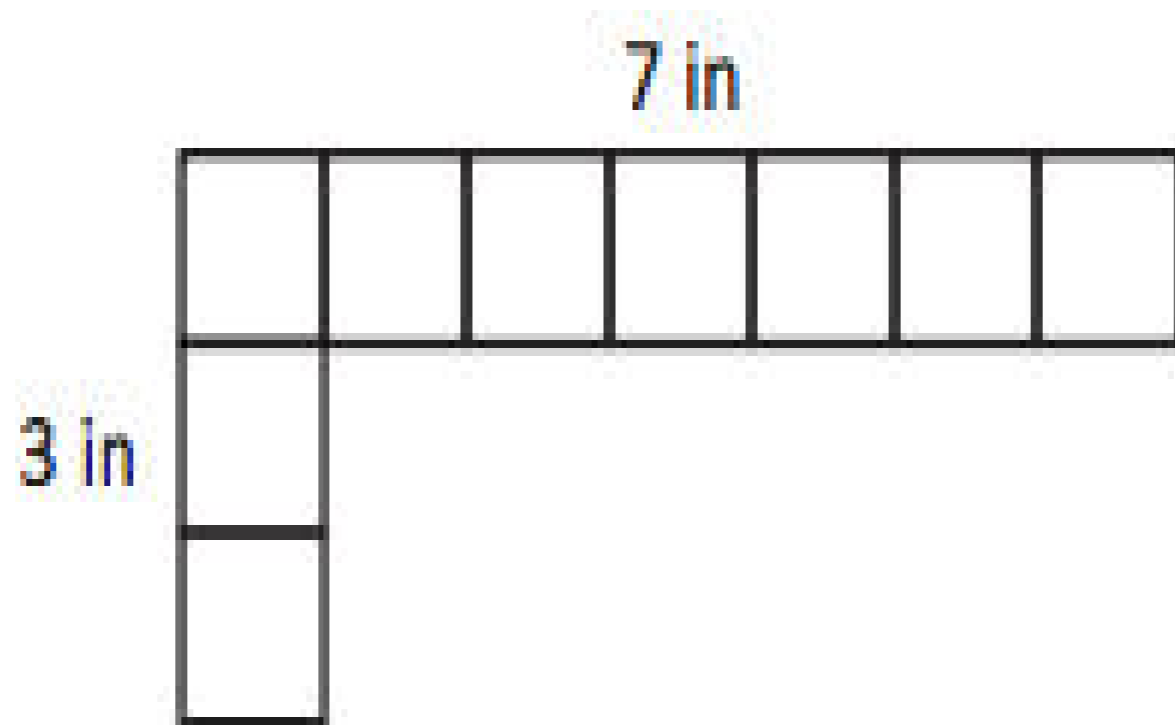


Label the side length.



Concept Development

How many threes will be in this rectangle?



What strategy could you use to find the total area?



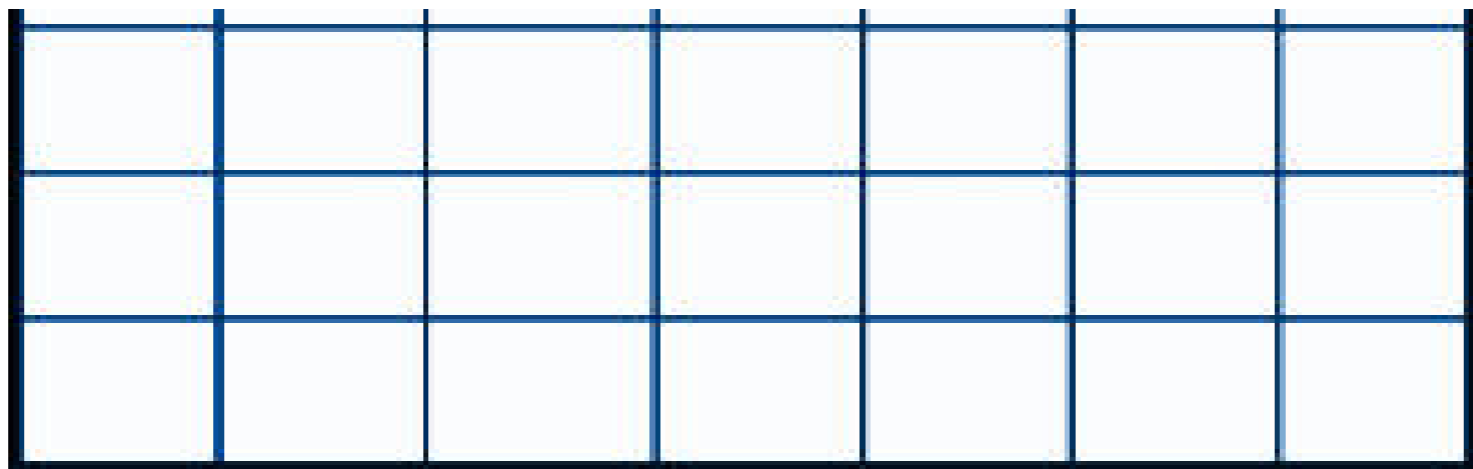
Concept Development

Draw the rest of the tiles in the rectangle.

Then skip-count to find the total area.

7 in

3 in



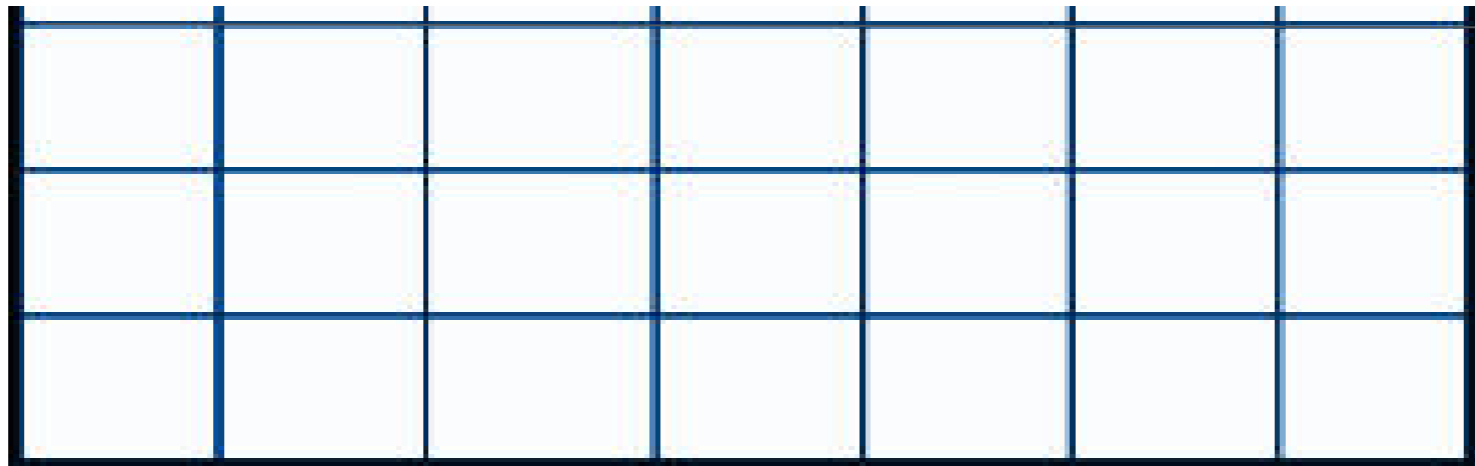


Concept Development

7 inches X 3 inches = 21 square inches

7 in

3 in





Concept Development

Make a side length of 6 in.

Label the side length.



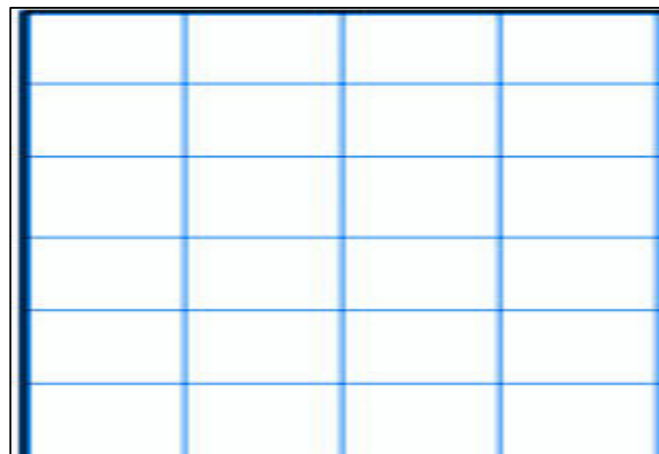
How can you use the following equation to find the other side length?

$$6 \times S = 24$$



Concept Development

Choose a strategy to find the other side length? What is the other side length?



$$6 \times \underline{\quad} = 24$$

4 square inches!

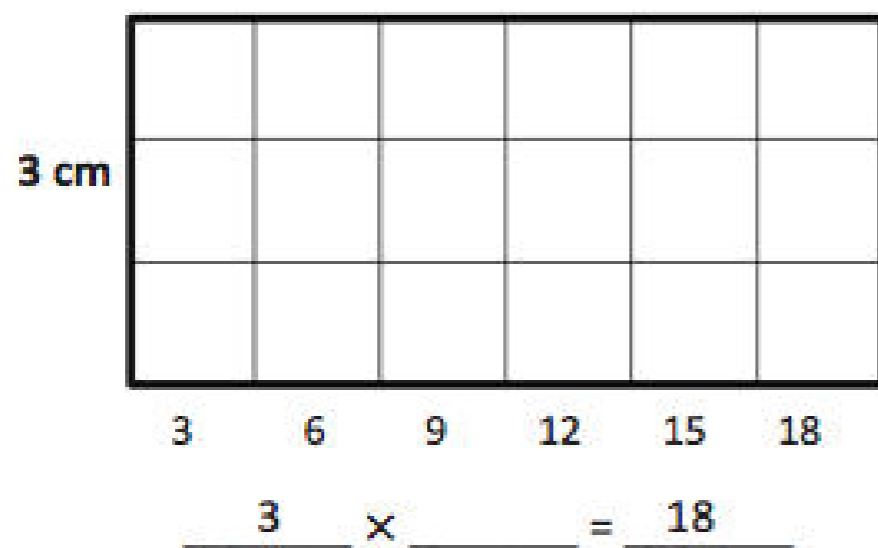
Problem Set

Name _____

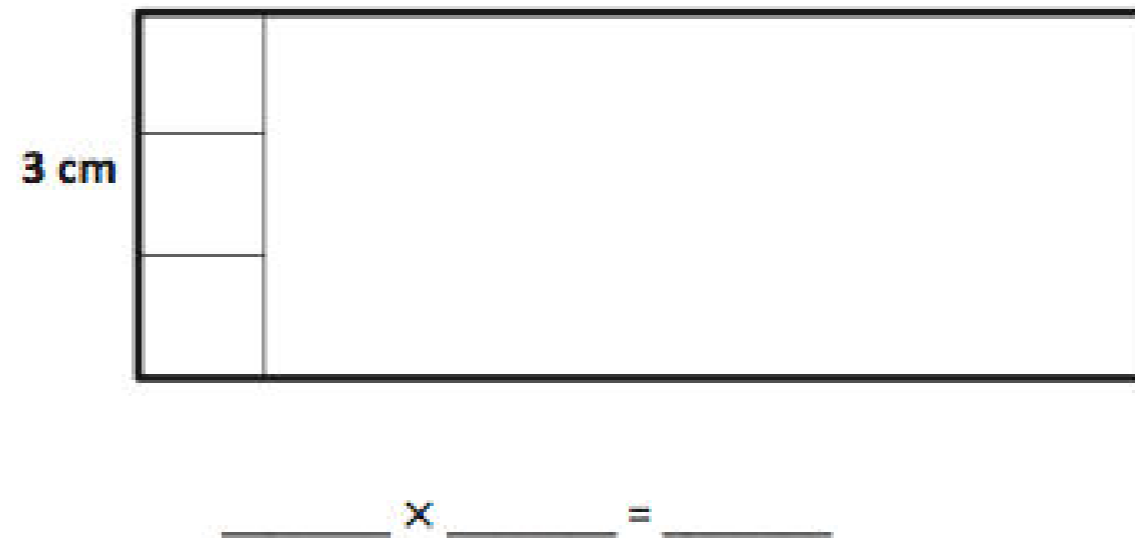
Date _____

1. Use the centimeter side of a ruler to draw in the tiles, and then skip-count to find the unknown area. Write a multiplication sentence for each tiled rectangle.

- a. Area: **18** square centimeters.



- d. Area: **24** square centimeters.



Debrief

Any combination of the questions below may be used to lead the discussion.

Compare Problems 1(b) and 1(e) and Problems 1(a) and 1(c). How does each pair show commutativity?

How many more threes does the array in Problem 1(d) have compared to the array in Problem 1(a)? How might the side lengths help you know that, even without seeing the tiled array?

Compare Problems 1(c) and 1(f). How are the areas related? (The area of 1(f) is half the area of 1(c).) How might you have figured that out just by knowing the side lengths of each array? In Problem 2, what strategy did you use to find the unknown side length? Is there another way you could have figured it out?

Students may have different solutions for Problem 3. Invite them to share and compare their work.

Exit Ticket

A STORY OF UNITS

Lesson 5 Exit Ticket

3•4

Name _____

Date _____

Darren has a total of 28 square centimeter tiles. He arranges them into 7 equal rows. Draw Darren's rectangle. Label the side lengths, and write a multiplication sentence to find the total area.