Eureka Math

3rd Grade
Module 4
Lesson 14

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.
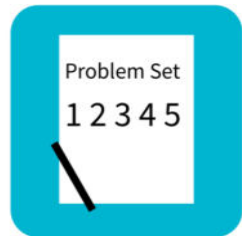
Icons

RDW — 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 14

Objective: Find areas by decomposing into rectangles or completing composite figures to form rectangles.

Suggested Lesson Structure

■ Fluency Practice	(15 minutes)	
■ Application Problem	(5 minutes)	
■ Concept Development	(30 minutes)	
■ Student Debrief	(10 minutes)	
Total Time	**(60 minutes)**	

I can find areas by decomposing rectangles or completing composite figures to form rectangles..

Fluency Practice

Group Counting

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

- Fours to 40
- Sixes to 60
- Sevens to 70
- Eights to 80

Fluency Practice

Multiply by 8

6 × 8 = _____

Let's skip-count by eights to find the answer.

Let's skip-count down to find the answer, too. Start at 80.

Let's skip-count up again to find the answer, but this time, start at 40.

Fluency Practice

Multiply by 8

Let's practice multiplying by 8. Be sure to work left to right across the page.

Multiply.

8 x 1 = _____	8 x 2 = _____	8 x 3 = _____	8 x 4 = _____
8 x 5 = _____	8 x 6 = _____	8 x 7 = _____	8 x 8 = _____
8 x 9 = _____	8 x 10 = _____	8 x 5 = _____	8 x 6 = _____
8 x 5 = _____	8 x 7 = _____	8 x 5 = _____	8 x 8 = _____
8 x 5 = _____	8 x 9 = _____	8 x 5 = _____	8 x 10 = _____

Fluency Practice

Find the Area

Write a number sentence to show the area of the shaded rectangle.

Write a number sentence to show the area of the unshaded rectangle.

Now write an addition sentence to show the area of the entire figure.

___ sq units + ___ sq units = ___ sq units

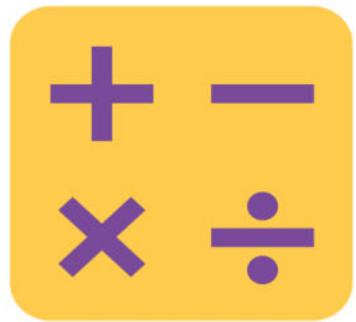# Fluency Practice

Find the Area

Write a number sentence to show the area of the shaded rectangle.

Write a number sentence to show the area of the unshaded rectangle.

Now write an addition sentence to show the area of the entire figure.
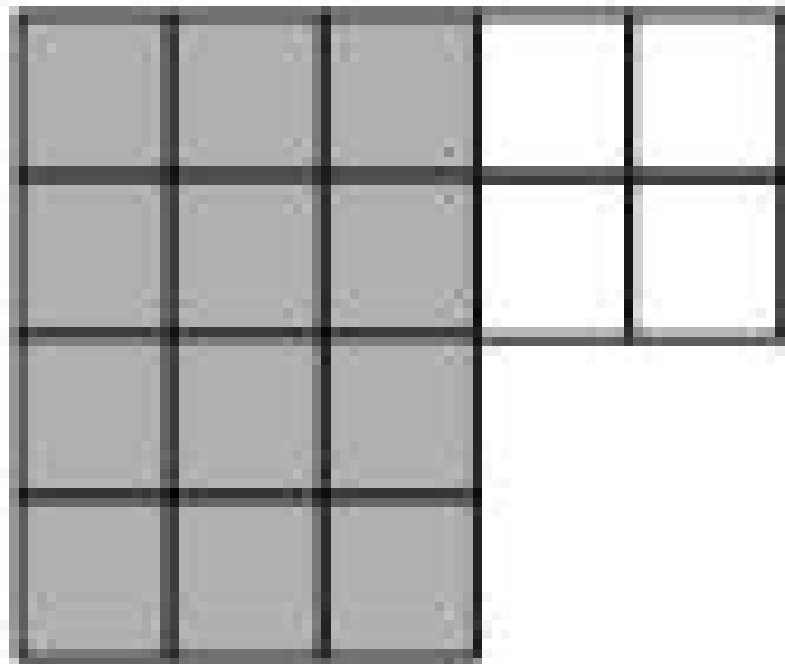
__ sq units + __ sq units = __ sq units

Fluency Practice

Find the Area

Write a number sentence to show the area of the shaded rectangle.

Write a number sentence to show the area of the unshaded rectangle.

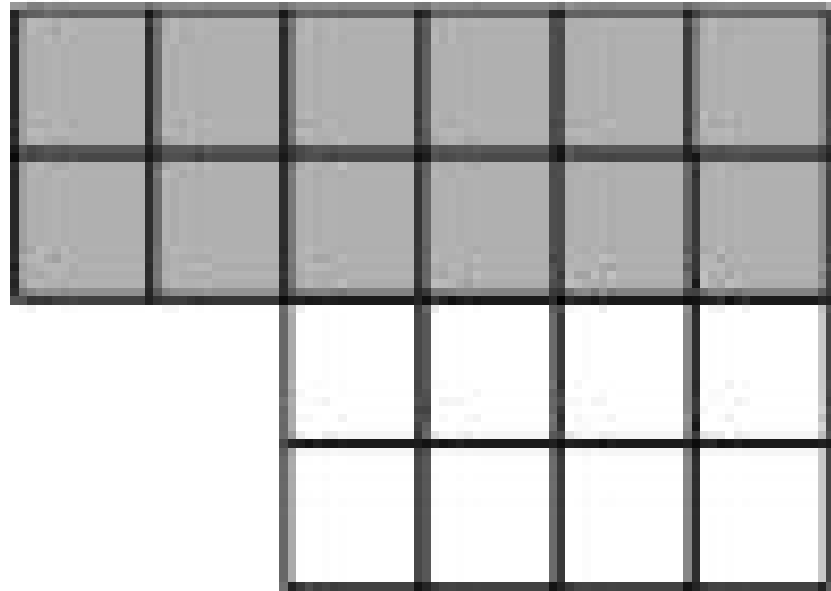Now write an addition sentence to show the area of the entire figure.

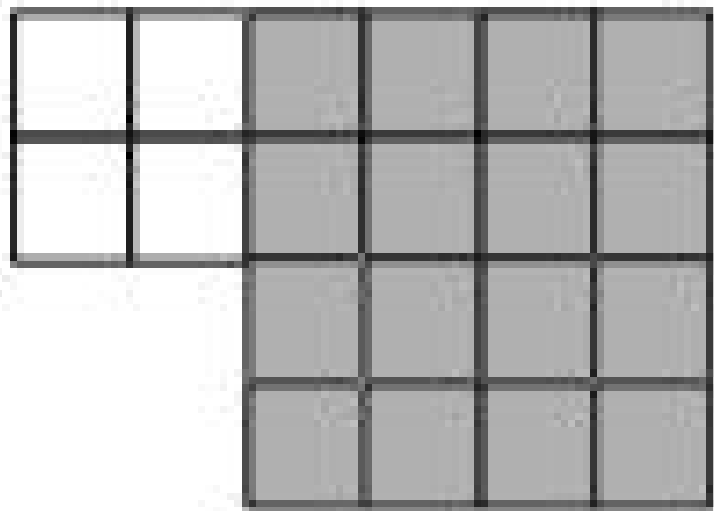__ sq units + __ sq units = __ sq units

Fluency Practice

Find the Area

Write a number sentence to show the area of the shaded rectangle.

Write a number sentence to show the area of the unshaded rectangle.

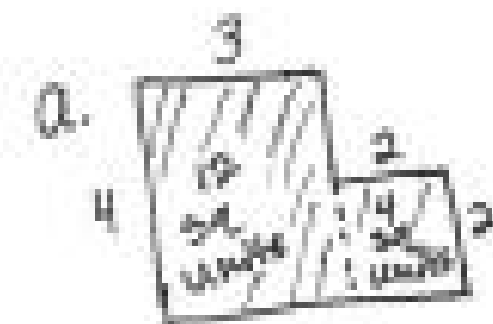Now write an addition sentence to show the area of the entire figure.

___ sq units + ___ sq units = ___ sq units
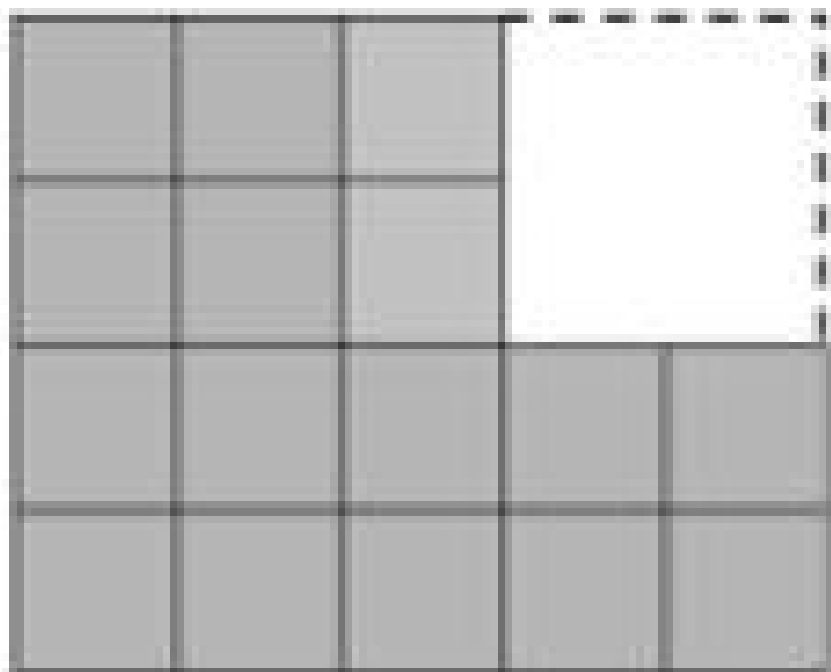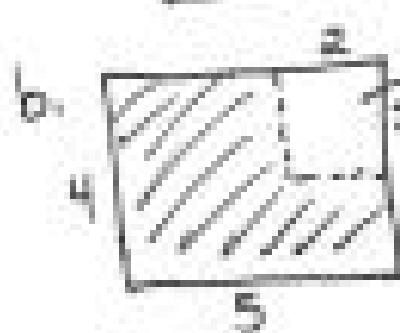
Application Problem

A. Break apart the shaded figure into 2 rectangles. Then, add to find the area of the shaded figure below.

B. Subtract the area of the unshaded rectangle from the area of the large rectangle to check your answer.

▣ Concept Development

What two strategies did we learn yesterday to find the area of a non-rectangular shape?
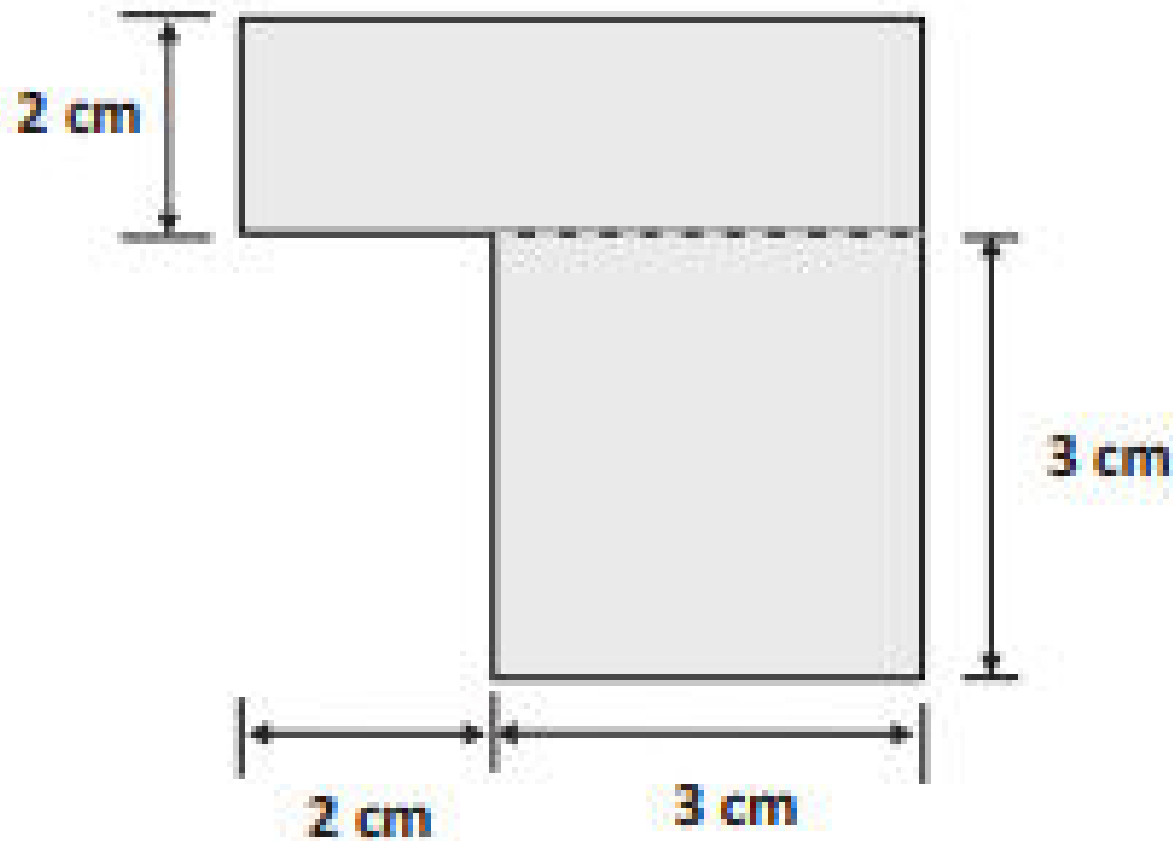
We can break the shape apart into smaller rectangles, and then add the areas of the smaller rectangles together.

Or, we can find the area of the larger rectangle and subtract the area of the unknown part.

2 cm

3 cm

2 cm   3 cm

☑ Concept Development

5 cm

2 cm

3 cm

2 cm   3 cm

What is the unknown width?
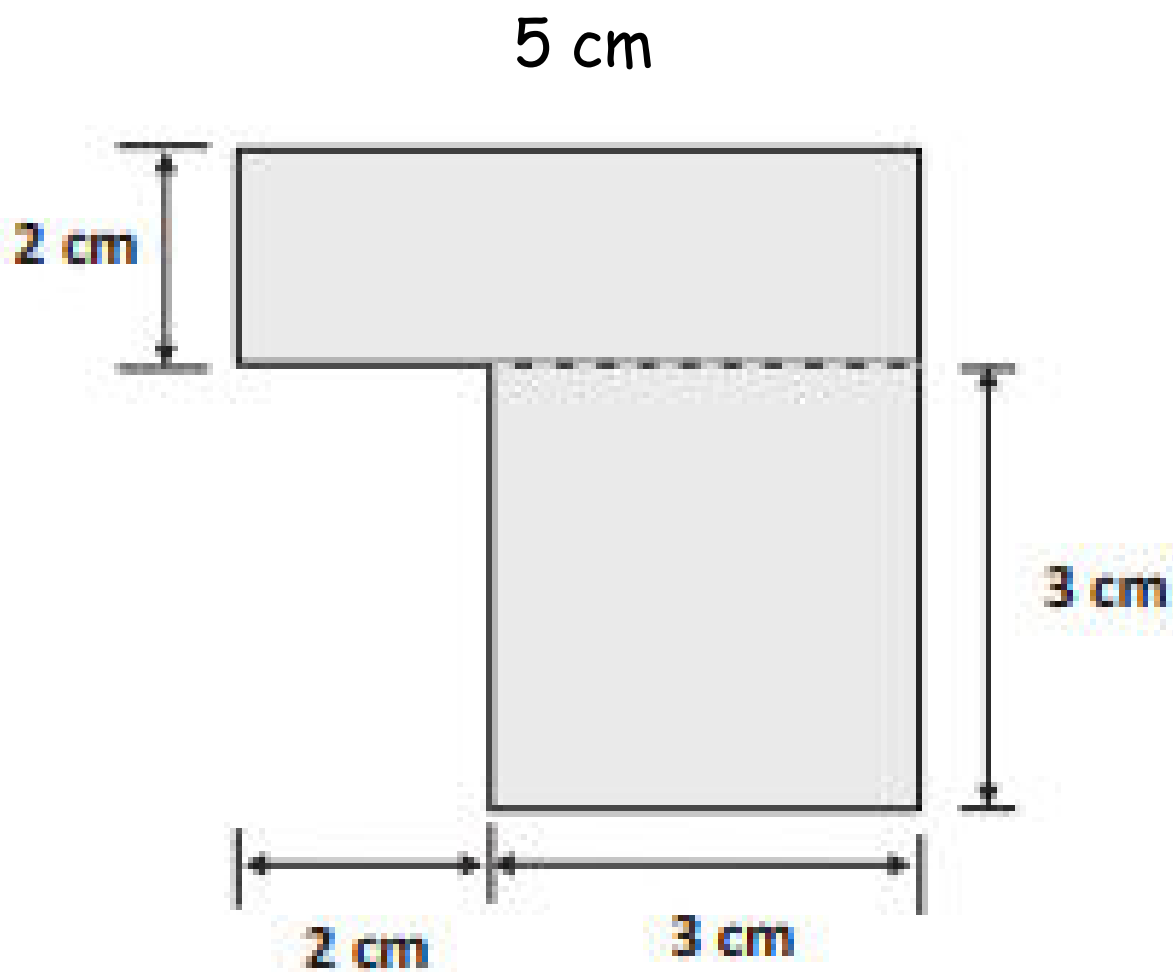
5 centimeters!

Label that on your figure.

Now, write the equation used to find the area of each of the smaller rectangles.

Concept Development

what is the area of the top rectangle?

10 square centimeters!

what is the area of the bottom rectangle?

9 square centimeters!

On your Problem Set, write the equation used to find the area of the whole figure. Be sure to answer in a complete sentence!

what is the total area of the figure?

19 square centimeters!

5 cm

2 cm

3 cm

2 cm

3 cm
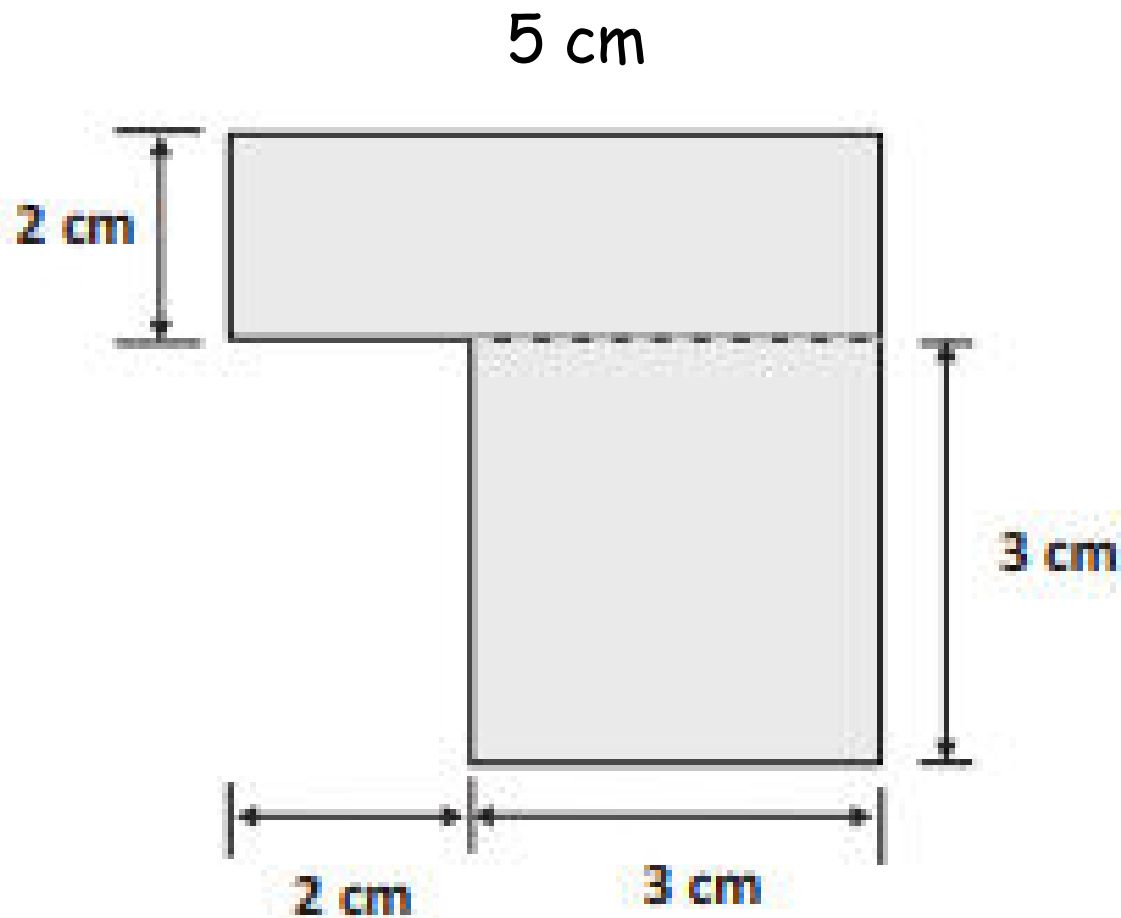
Concept Development

Fanny has a piece of fabric 8 feet long and 5 feet wide. She cuts out a rectangular piece that measures 3 feet by 2 feet. How many square feet of fabric does Fanny have left?

Draw and label Fanny's fabric.

5 ft

8 ft

▱ Concept Development

5 ft

3 ft

8 ft   2 ft
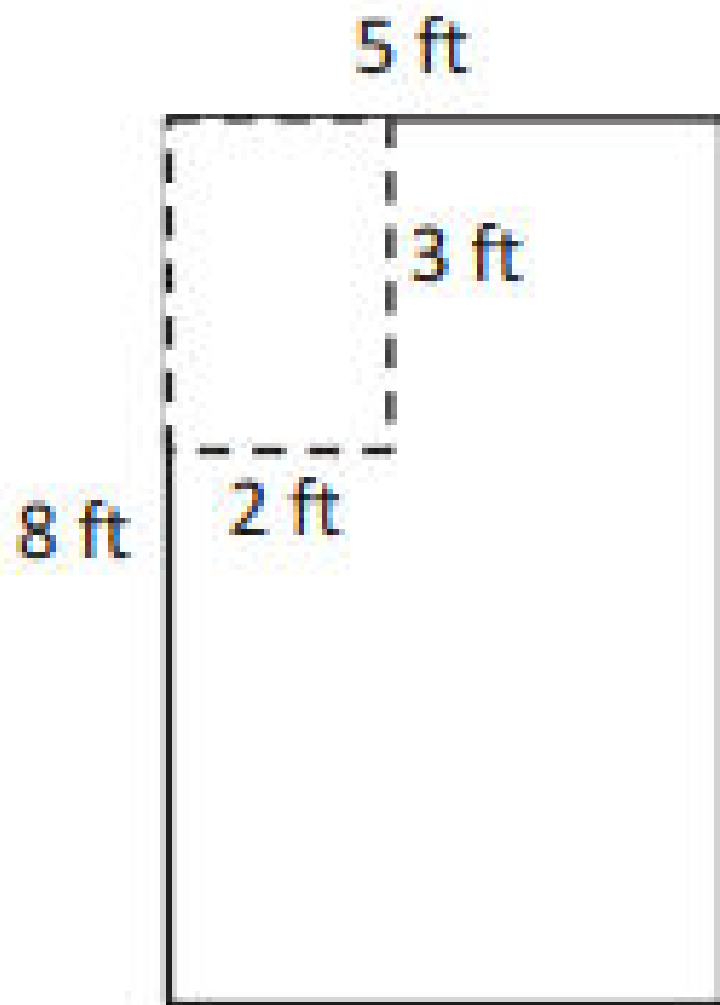
How big is the piece that Fanny cuts out?
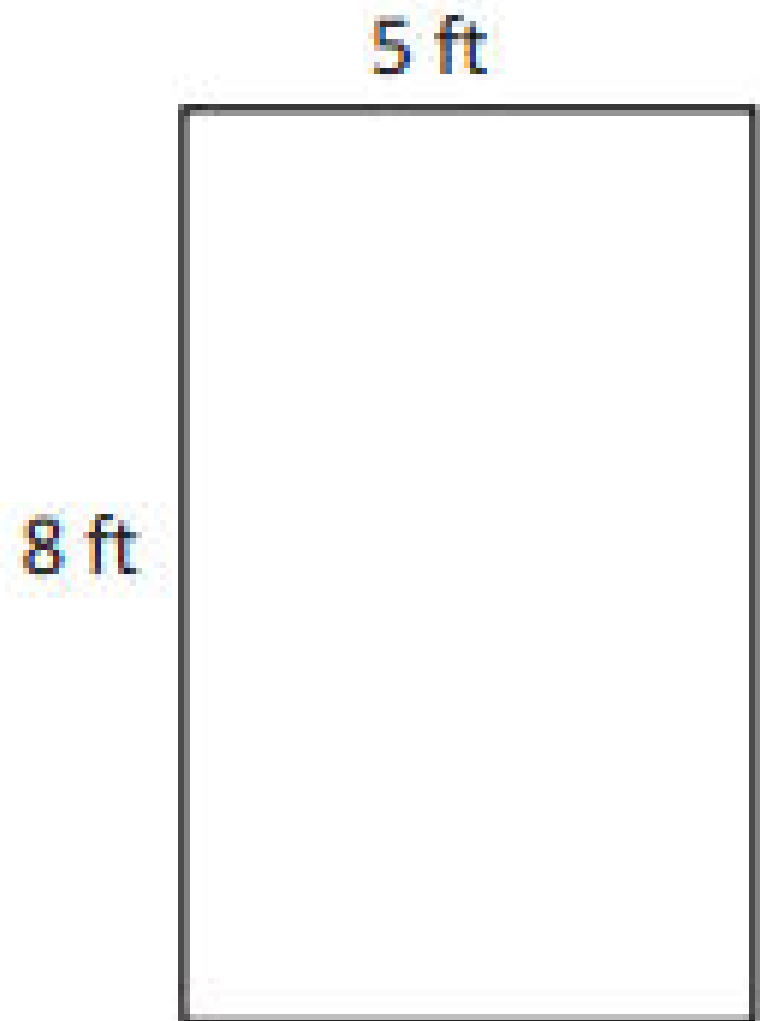
What's the best way for us to find the area of the remaining fabric?

3 ft by 2 ft.

Find the area of the original piece, then subtract the area of what was cut out.

Work with your partner to draw the piece of fabric that Fanny cuts out. Label the measurements of the piece being cut out.

◻ Concept Development

5 ft

3 ft

8 ft   2 ft

Write an equation to find the area of the original piece of fabric.
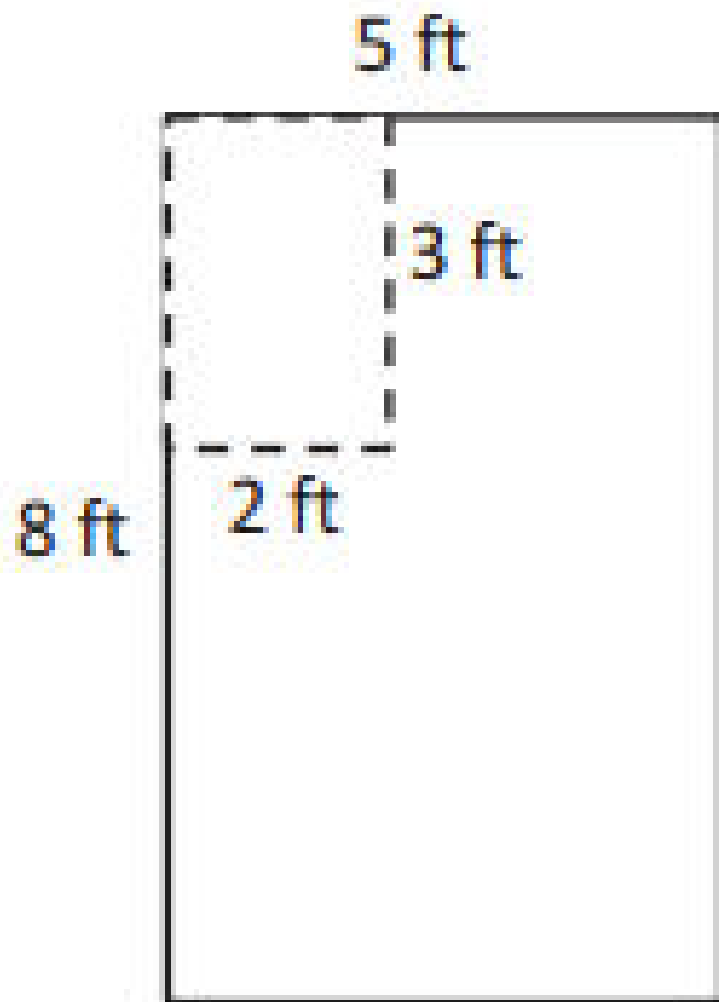
$8 \times 5 = 40$

Beneath what you just wrote, write an equation to find the area of the piece of fabric Fanny cuts out. What is the area of the piece that is cut out?

6 square feet!

◩ Concept Development
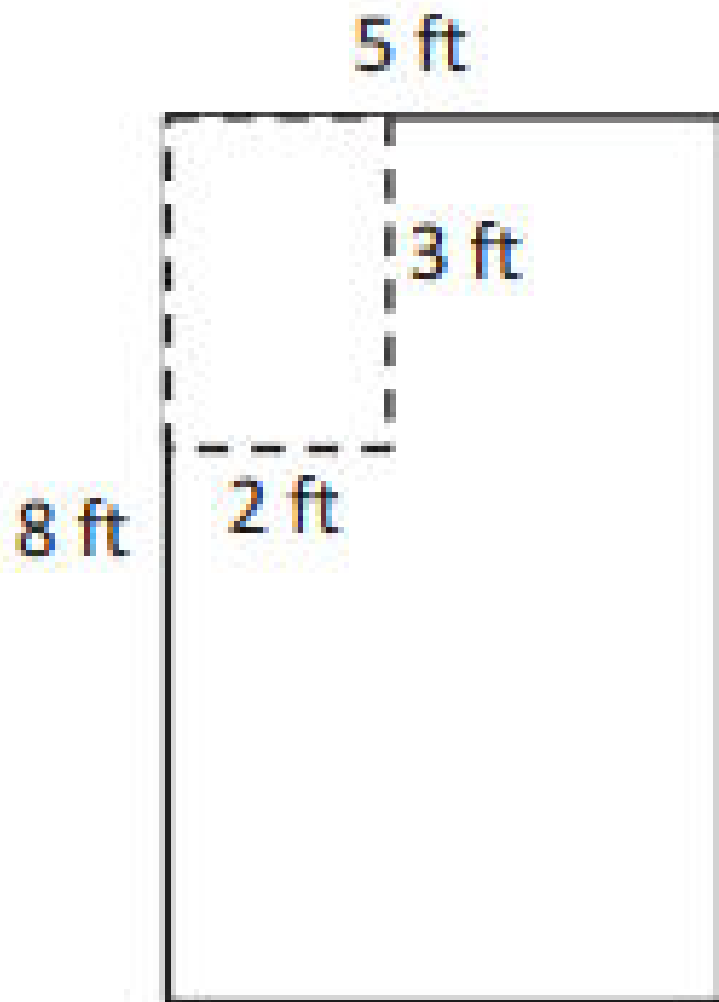

5 ft

3 ft

8 ft   2 ft

What expression tells us the area of the remaining fabric?

40 - 6

40 - 6 equals...?

34

How much fabric does Fanny have left?

34 square feet!

Problem Set
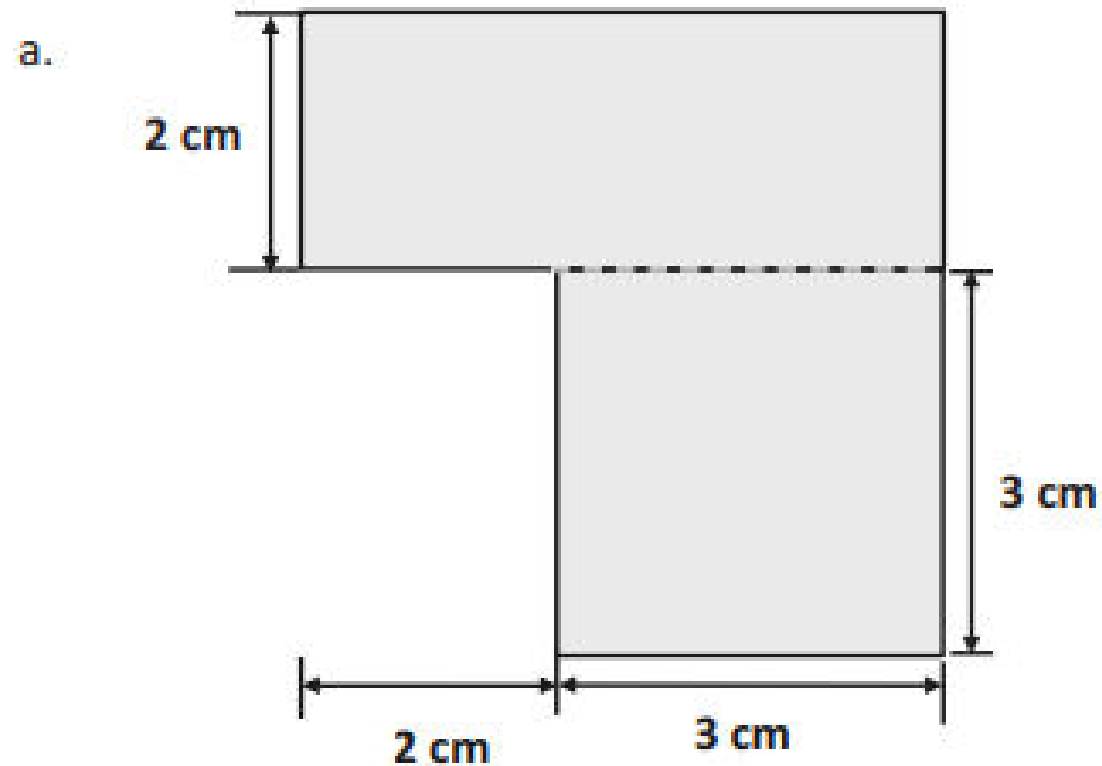
Name _____   Date _____

1. Find the area of each of the following figures. All figures are made up of rectangles.

a.

2 cm

3 cm

2 cm   3 cm

Debrief

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

Lead a discussion about the strategy choice for Problems 1(a) and 1(b). Could the strategies have been reversed for these two problems?

What steps did you need to follow to solve Problem 2? How were you able to find the area of the smaller rectangle?

Invite students to share their drawings for Problem 3. In what ways are they similar? In what ways are they different?

Why did Tila and Evan wind up with the same amount of paper in Problem 4? If they both cut their rectangles from the corners of their papers, would they both be able to cut out a 4-cm by 8- cm rectangle with their remaining paper? (Guide students to reason that, although they both have 42 sq cm left and the 4 × 8 rectangle only measures 32 sq cm, only Evan can cut out such a rectangle from his remaining paper.)

Exit Ticket

Name _____ Date _____

Mary draws an 8 cm by 6 cm rectangle on her grid paper. She shades a square with a side length of 4 cm inside her rectangle. What area of the rectangle is left unshaded?