Eureka Math

3rd Grade
Module 4
Lesson 13

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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

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- ➢ Click on the “pop-out” button in the upper right hand corner to change the view.
- ➢ The view now looks like Screen B.
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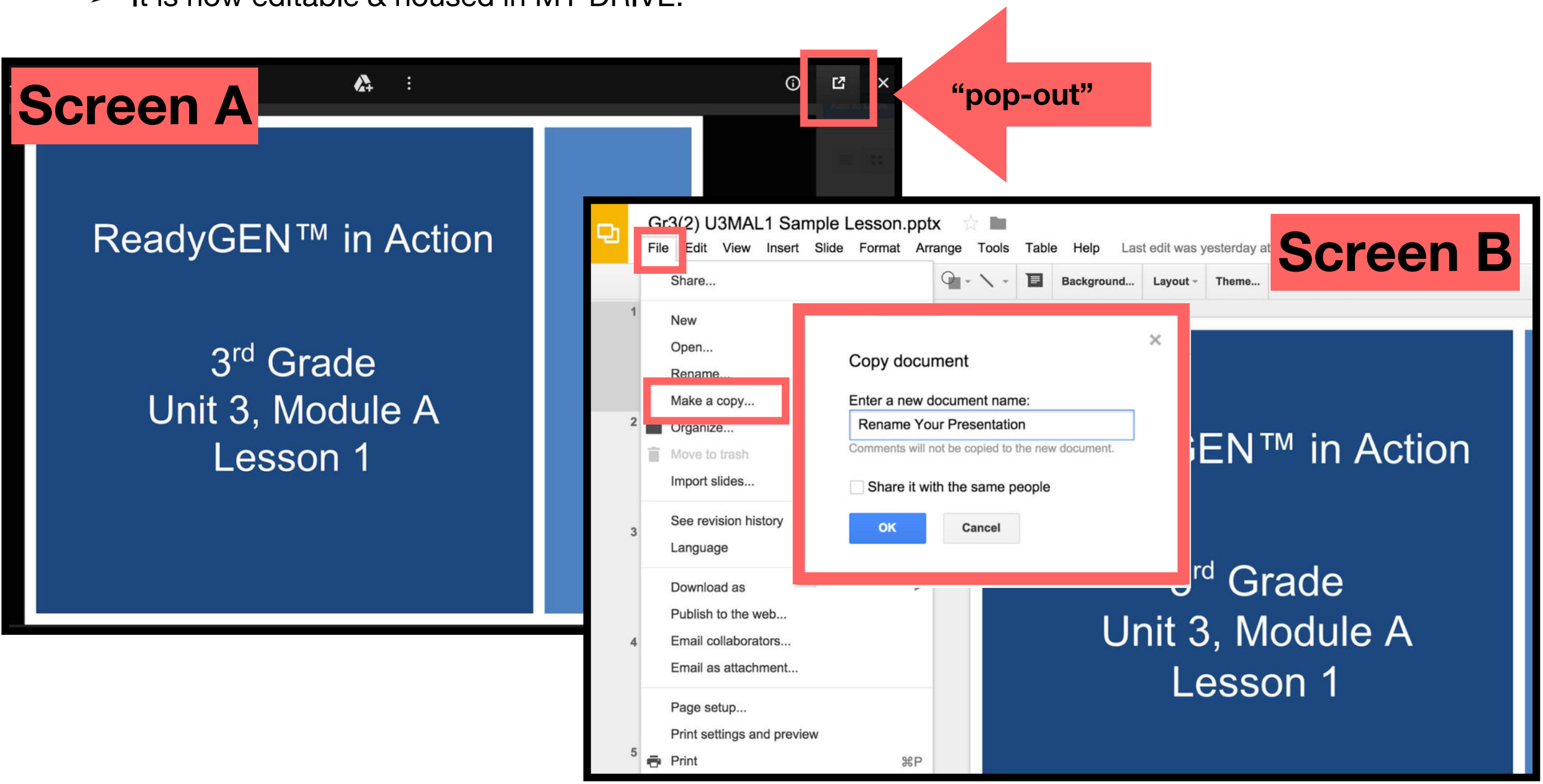
- ➢ Choose MAKE A COPY and rename your presentation.
- ➢ Google Slides will open your renamed presentation.
- ➢ It is now editable & housed in MY DRIVE.



Icons

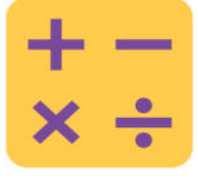
Read, Draw, Write

Learning Target

Personal White Board

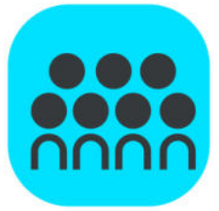
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

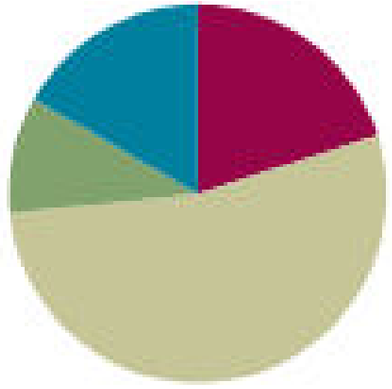
Small Group Time

Lesson 13

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

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(6 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



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

Fluency Practice

Group Counting

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

- Threes to 30
- Sixes to 60
- Eights to 80
- Nines to 90

Fluency Practice

Find the Common Products

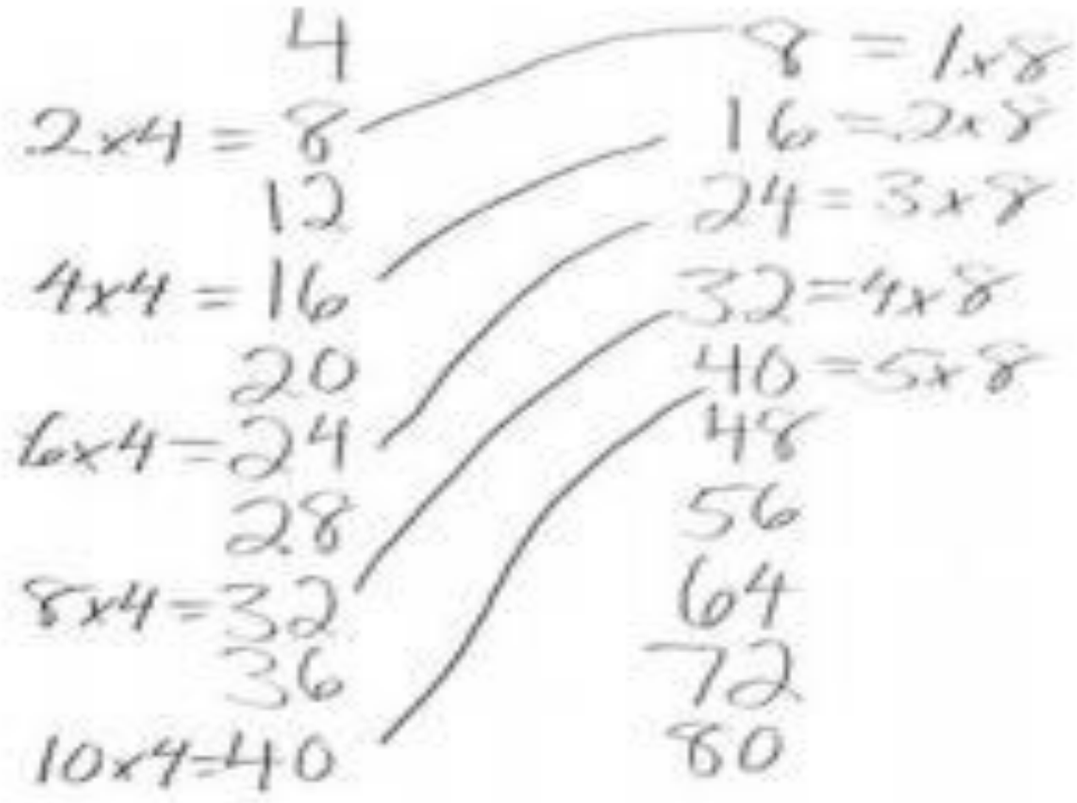
On whiteboards or a piece of paper list all the products of 4 and 8 vertically. Then draw a line to match products that appear in both columns.

After matching write the equations that are equal and discuss patterns.

- See next slide for model.

Fluency Practice

Find the Common Products



2 x 4 = 1 x 8
4 x 4 = 2 x 8
6 x 4 = 3 x 8
8 x 4 = 4 x 8
10 x 4 = 5 x 8

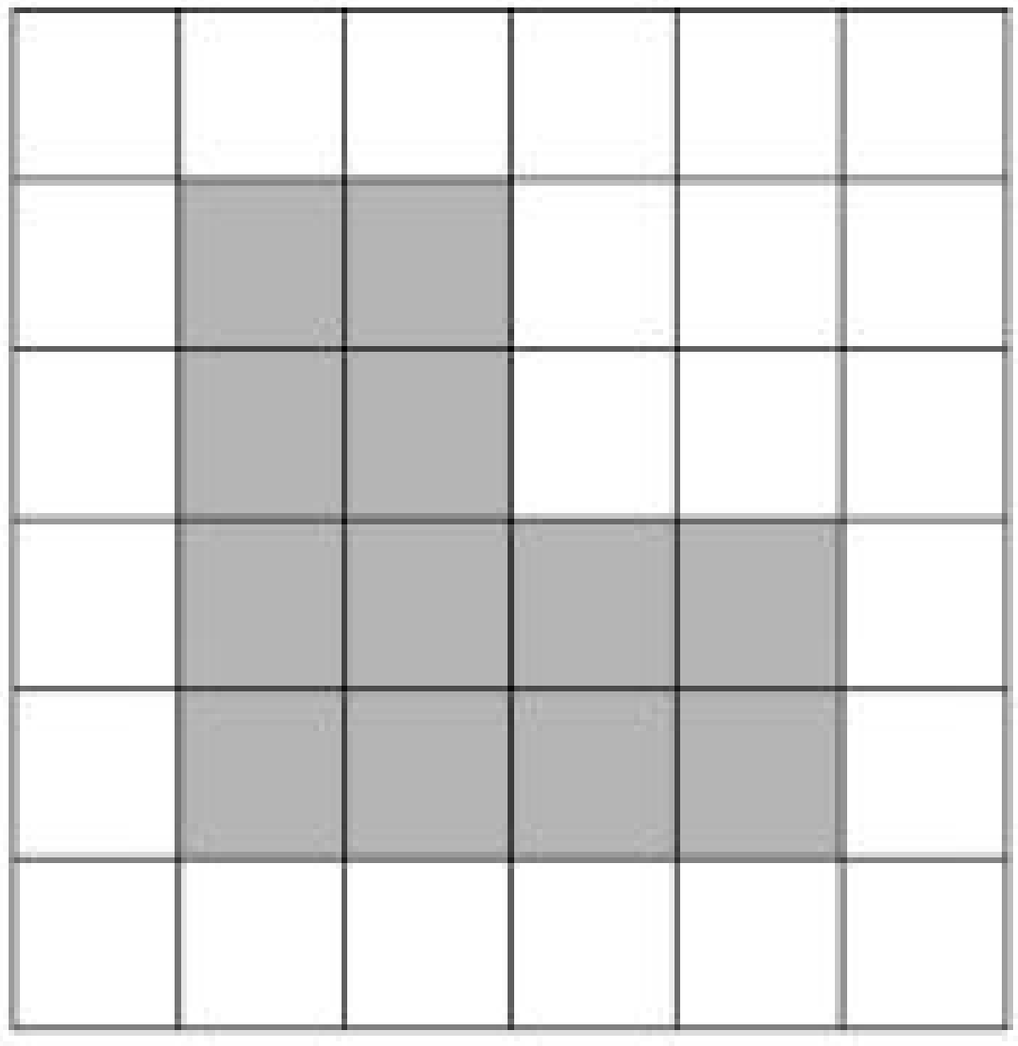
Application Problem

Anil finds the area of a 5-inch by 17-inch rectangle by breaking it into 2 smaller rectangles. Show one way that he could have solved the problem. What is the area of the rectangle?

Concept Development

Problem 1: Add using the break apart strategy to find the area of a composite shape.

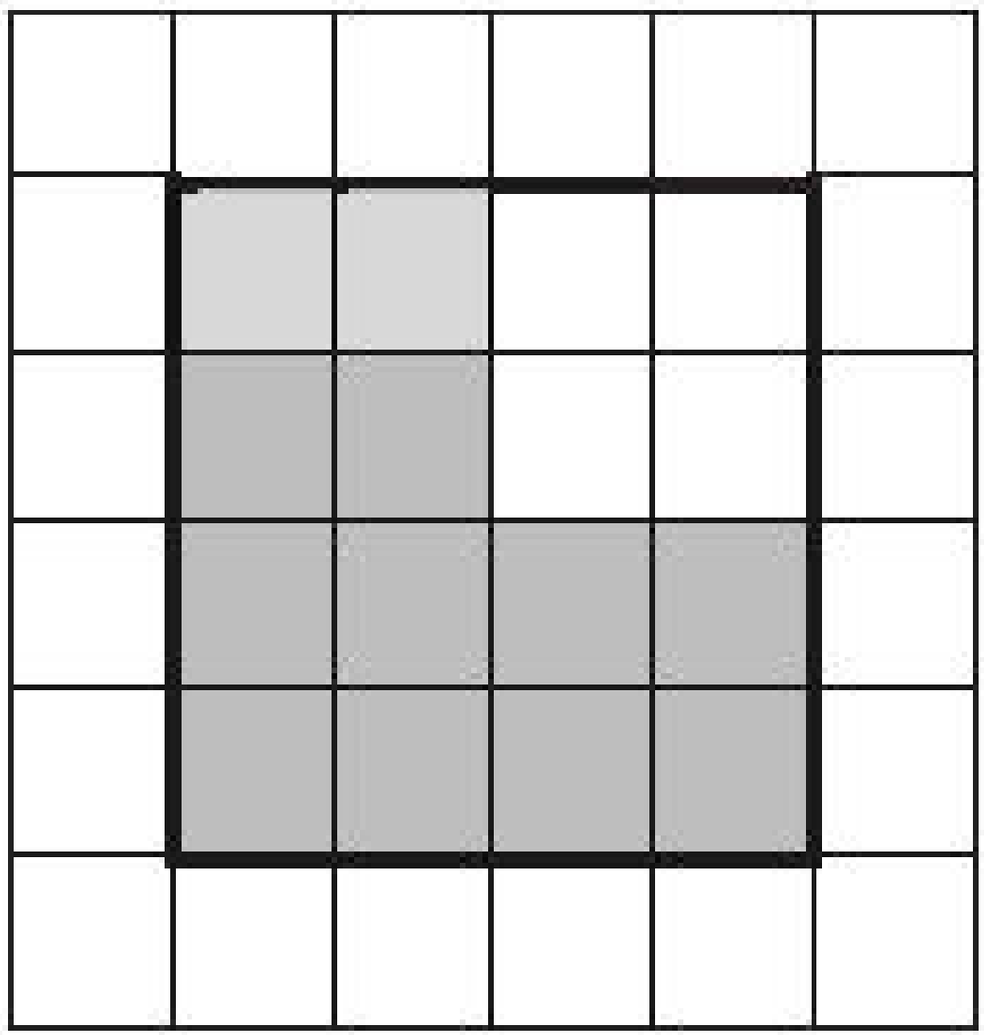
- Use your grid template and place in your whiteboard.
- Draw and shade the shape on your grid.
- How do we find the area of a rectangle?
- Can we just multiply the side lengths?
- How can we break this shape apart to solve?



Concept Development

Problem 1: Add using the break apart strategy to find the area of a composite shape.

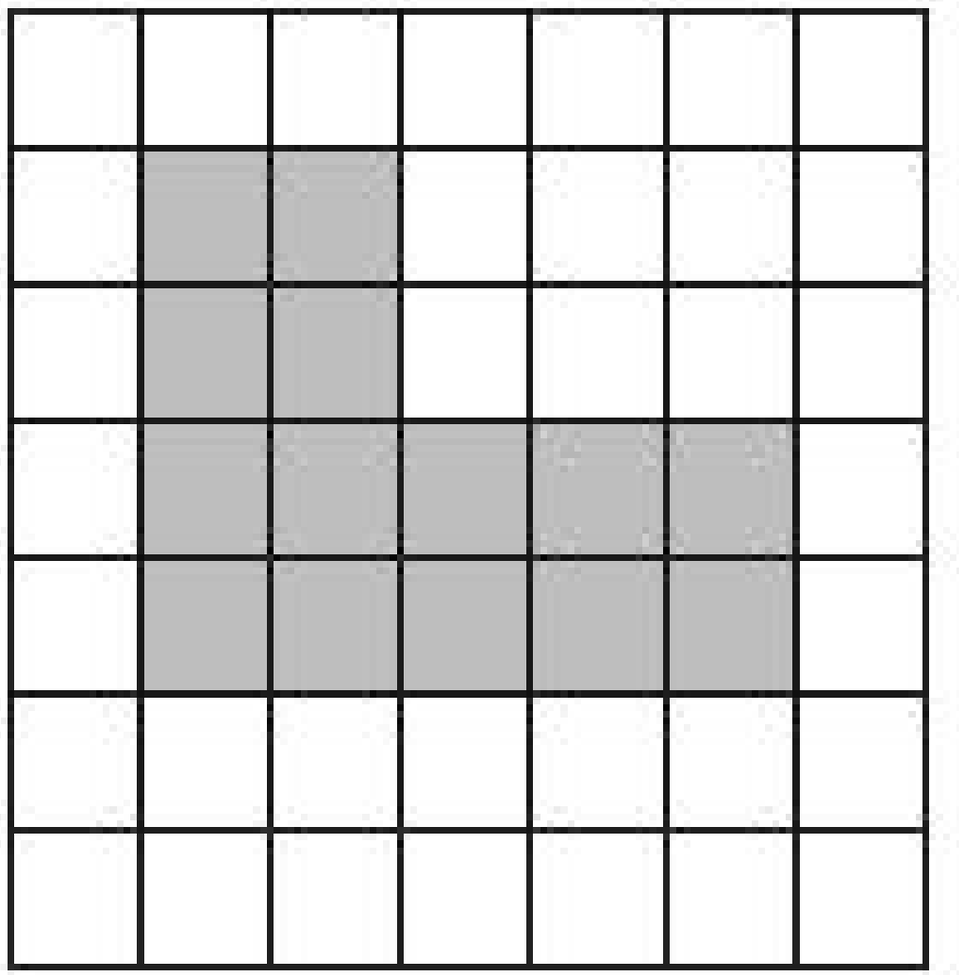
- We can also find the area by thinking about a 4 x 4 square with missing units.
- What's the area of the whole?
- What do we have to subtract?



Concept Development

Problem 1: Add using the break apart strategy to find the area of a composite shape.

- How can we break this shape apart to solve?



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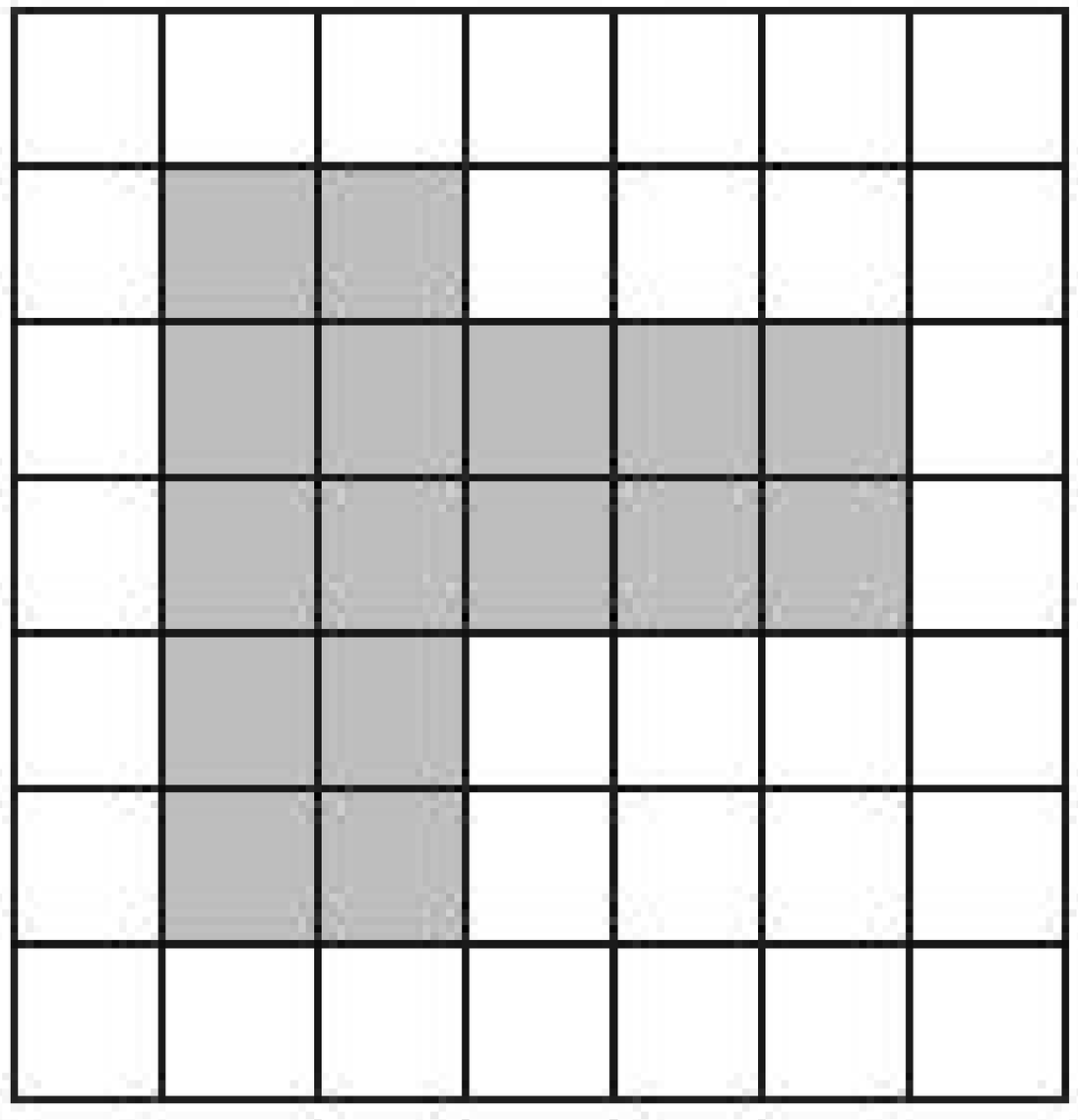

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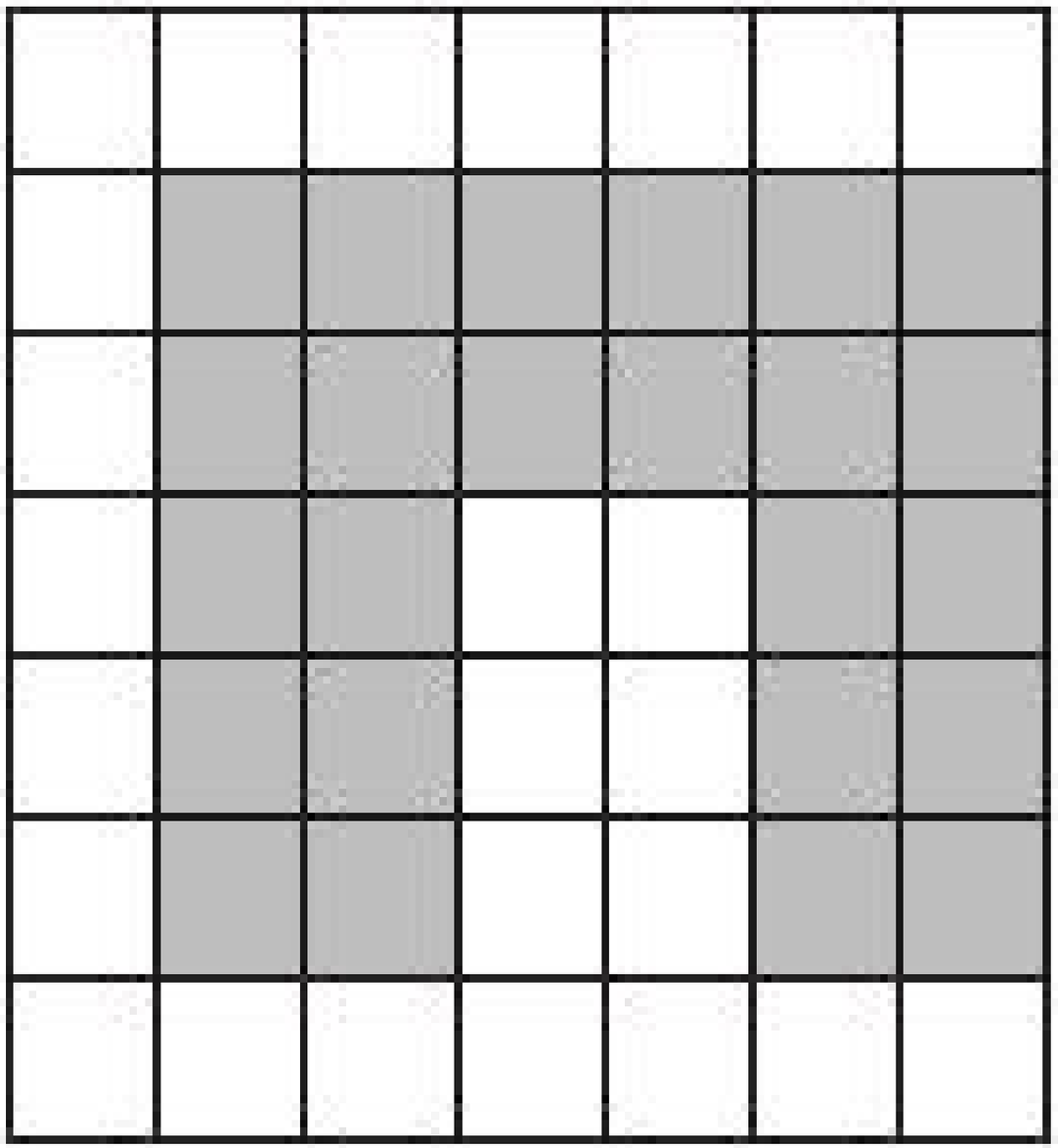
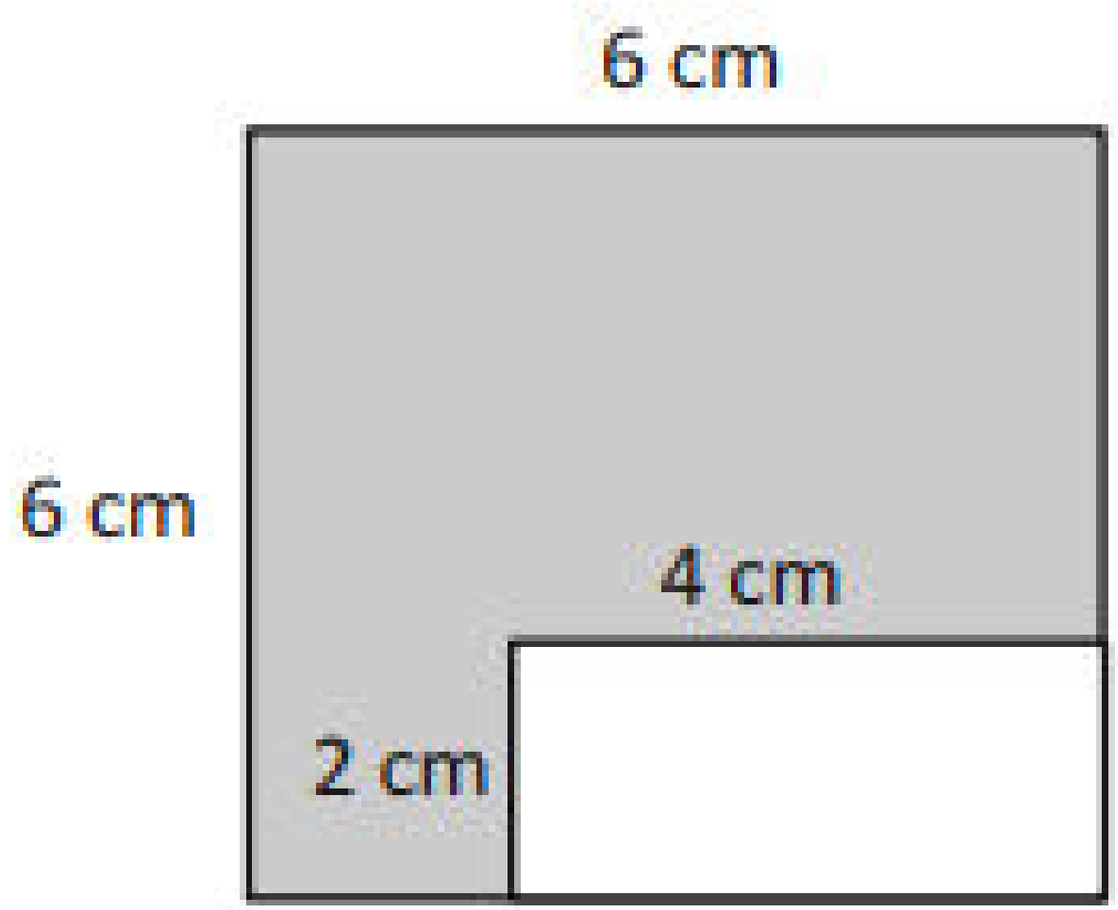


Concept Development

Problem 2: Subtract to find the area of a composite shape.

This shows a small rectangle cut out of a larger, shaded rectangle. How can we find the area of the shaded figure?

- Write a number sentence to find the area of the larger rectangle.
- Write an equation for the part that is white.
- How can we use this to find the area of the shaded shape?



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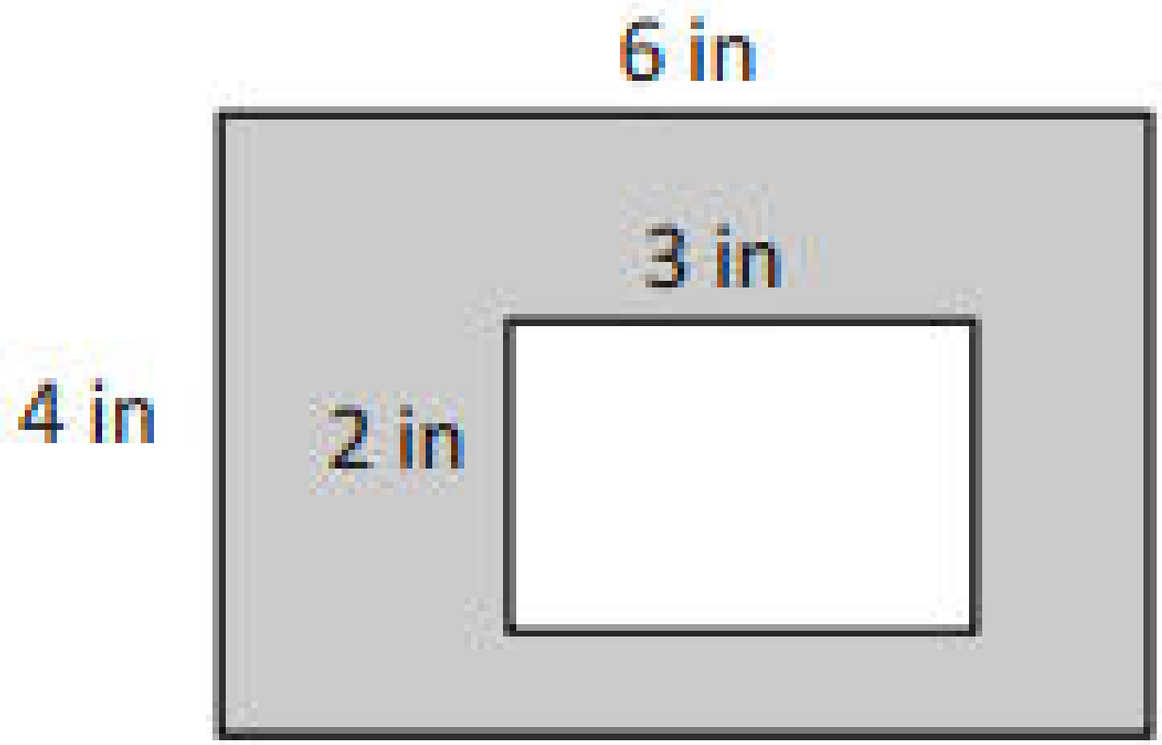
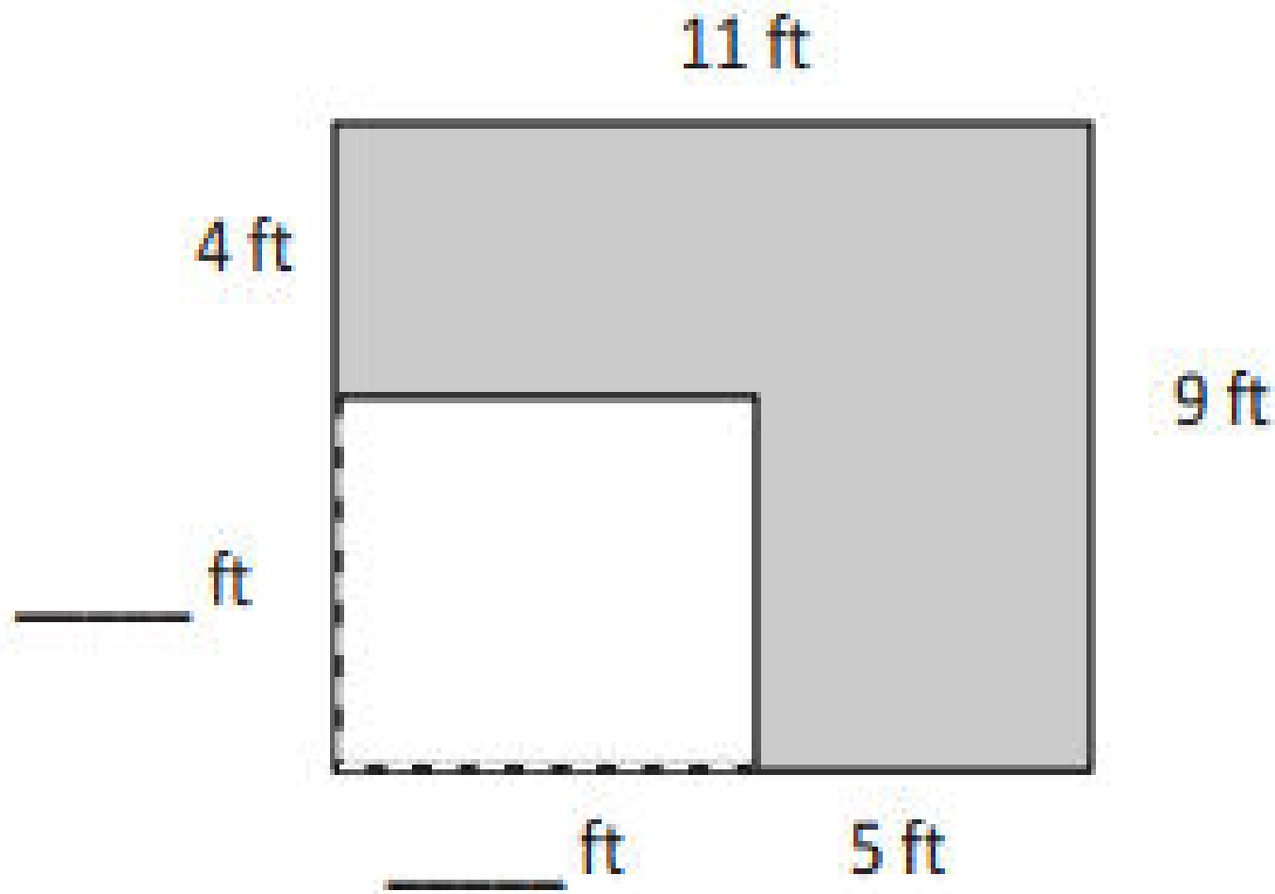


Concept Development

Problem 3: Subtract to find the area of a composite shape with unknown side lengths.

This figure also shows a small rectangle cut out of a larger shaded rectangle.

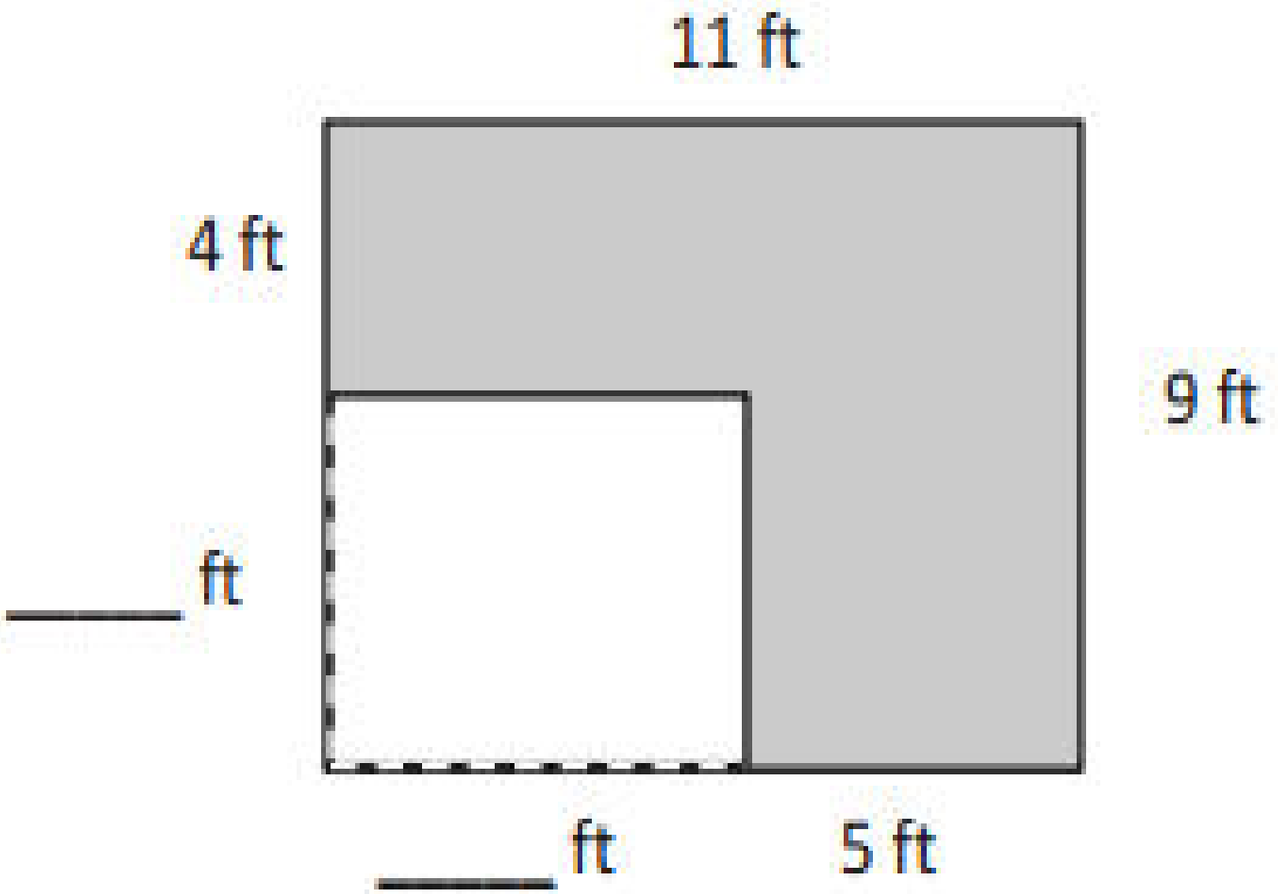
- What is unknown?
- Do we have enough information to find the side lengths?
- Opposite sides of a rectangle are equal. How can this help us?

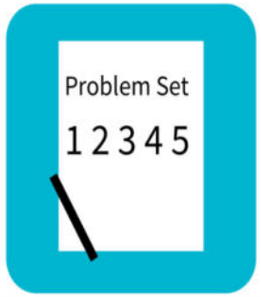


Concept Development

Problem 3: Subtract to find the area of a composite shape with unknown side lengths.

- Fill in the missing sides.
- Write equations and solve to find the shaded area.

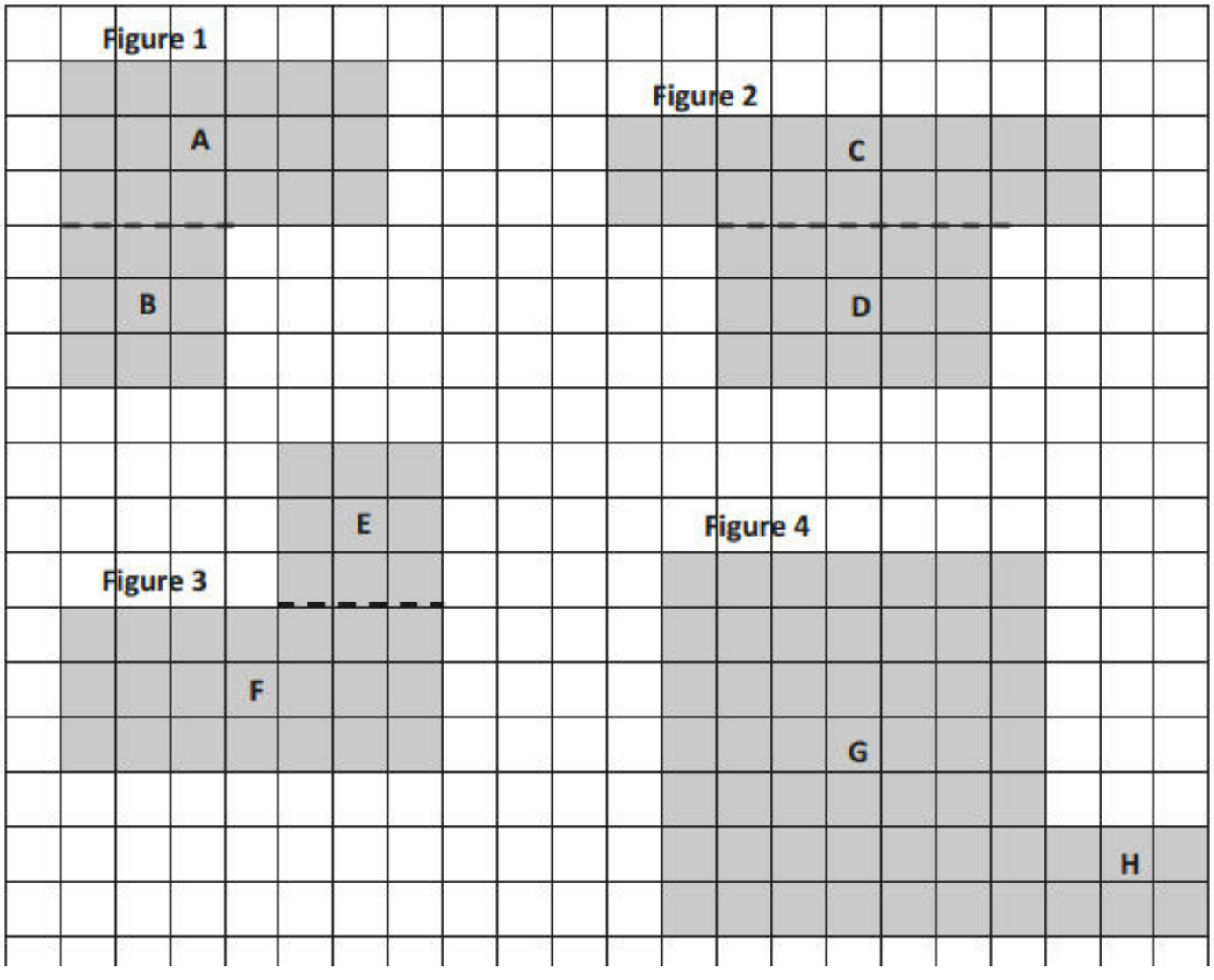




Problem Set

Name _____ Date _____

1. Each of the following figures is made up of 2 rectangles. Find the total area of each figure.



Debrief

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

- How did you break apart the rectangles in Figure 4? Did anyone break apart the rectangles in a different way? (A rectangle of 10 by 2.)
- In Problem 2, a 4-cm by 3-cm rectangle was cut out of a bigger rectangle. What other measurements could have been cut out to keep the same area for the shaded region?
- How did you find the unknown measurements in Problem 3?
- How were today's strategies examples of using what we know to solve new types of problems?

Exit Ticket

Name _____ Date _____

The following figure is made up of 2 rectangles. Find the total area of the figure.