Eureka Math

3rd Grade
Module 4
Lesson 15

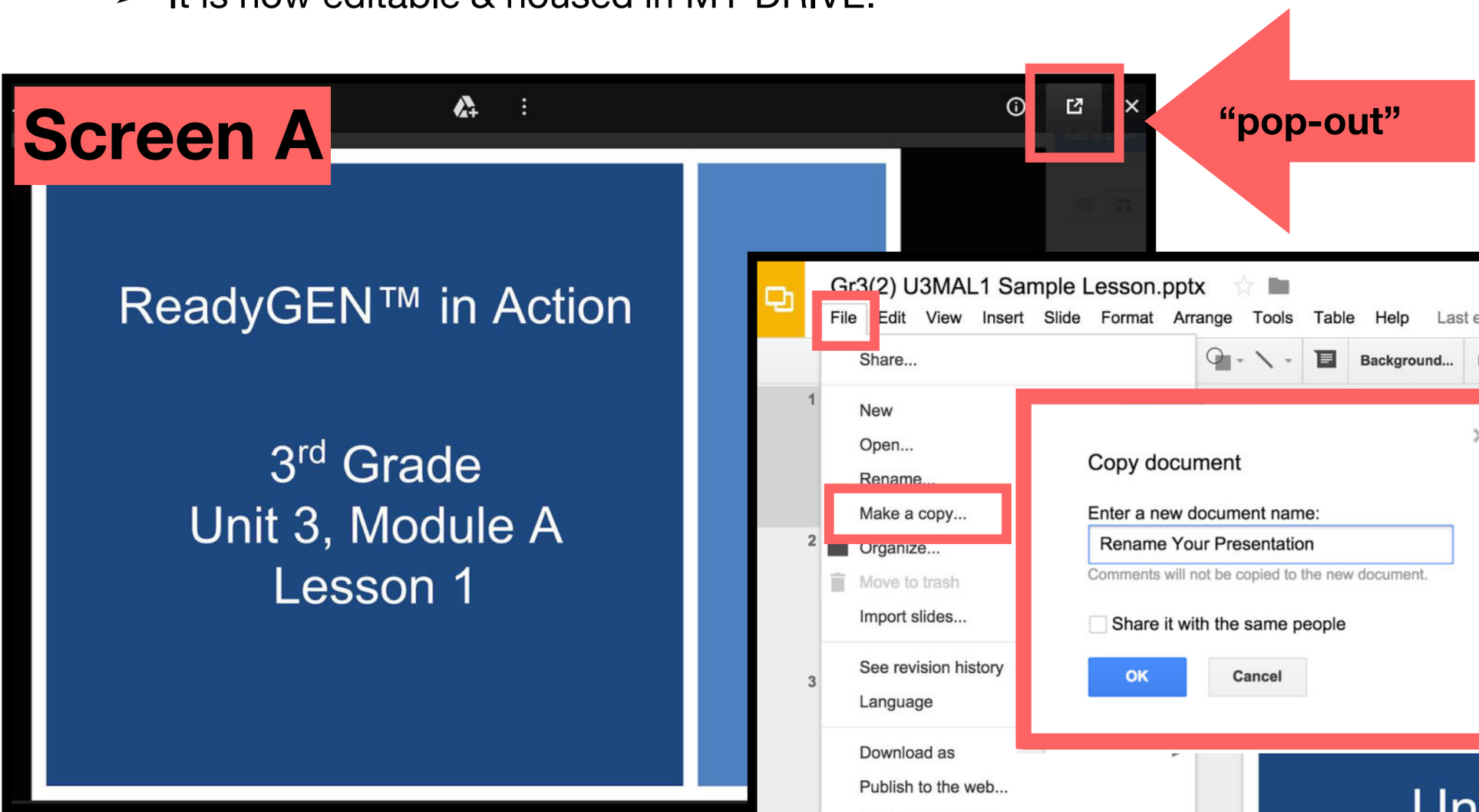
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

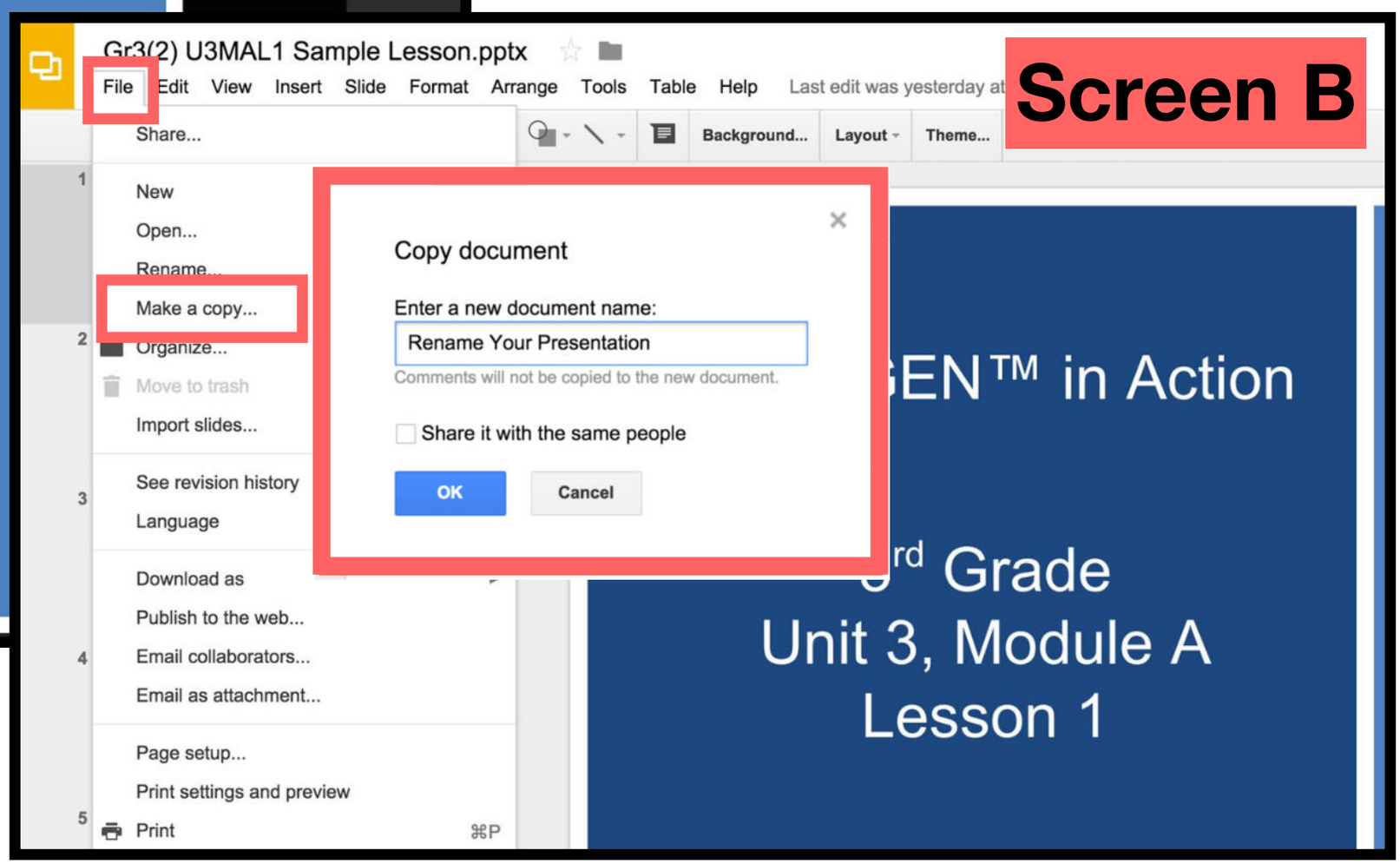
Directions for customizing presentations are available on the next slide.

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

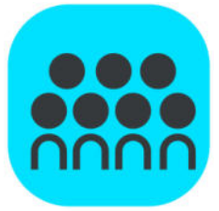
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

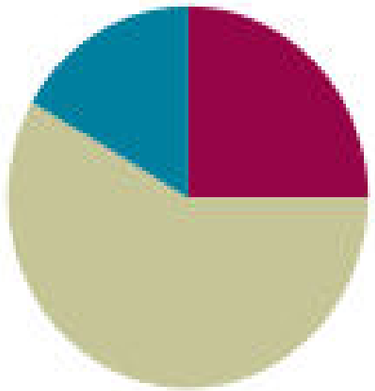
Small Group Time

Lesson 15

Objective: Apply knowledge of area to determine areas of rooms in a given floor plan.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Concept Development	(35 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



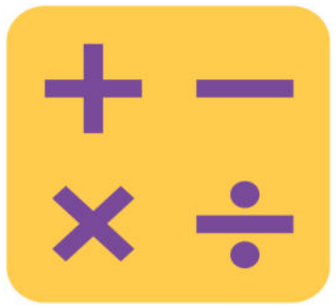
I can apply knowledge of area to determine areas of rooms in a given floor plan.

Fluency Practice

Group Counting

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

- Threes to 30
- Sixes to 60
- Sevens to 70
- Eights to 80



Fluency Practice

Multiply by 9

5 × 9 = _____

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

3 x 9 = _____

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

Fluency Practice

Multiply by 9

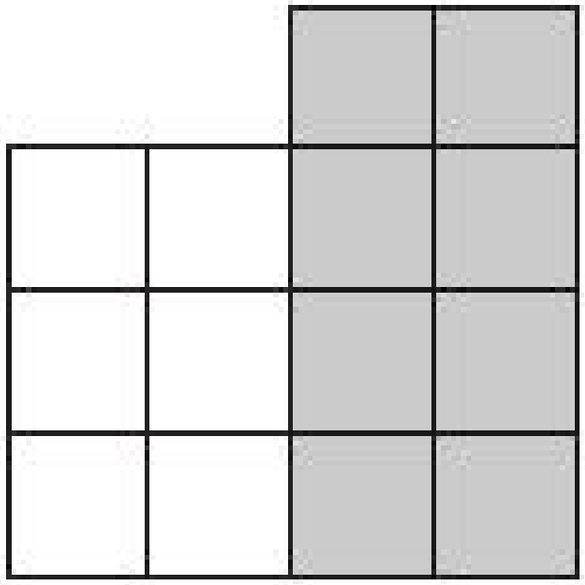
Let's practice multiplying by 9. Be sure to work left to right across the page.

Multiply.

9 x 1 = _____	9 x 2 = _____	9 x 3 = _____	9 x 4 = _____
9 x 5 = _____	9 x 1 = _____	9 x 2 = _____	9 x 1 = _____
9 x 3 = _____	9 x 1 = _____	9 x 4 = _____	9 x 1 = _____
9 x 5 = _____	9 x 1 = _____	9 x 2 = _____	9 x 3 = _____
9 x 2 = _____	9 x 4 = _____	9 x 2 = _____	9 x 5 = _____

Fluency Practice

Find the Area



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

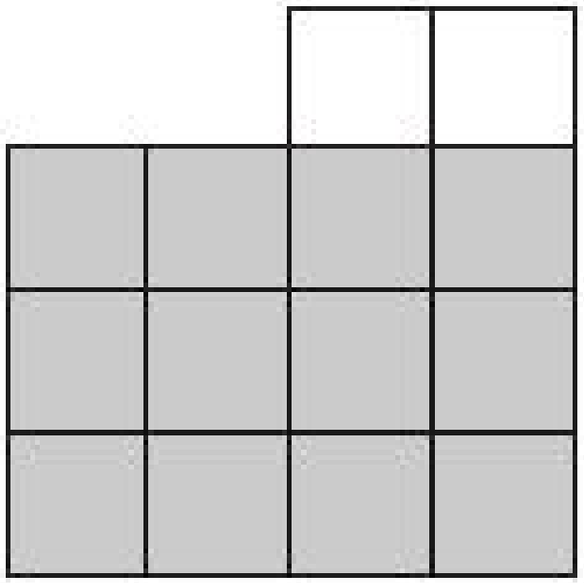
Write a number sentence to show the area of the unshaded rectangle.

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

___ sq units + ___ sq units = ___ sq units

Fluency Practice

Find the Area



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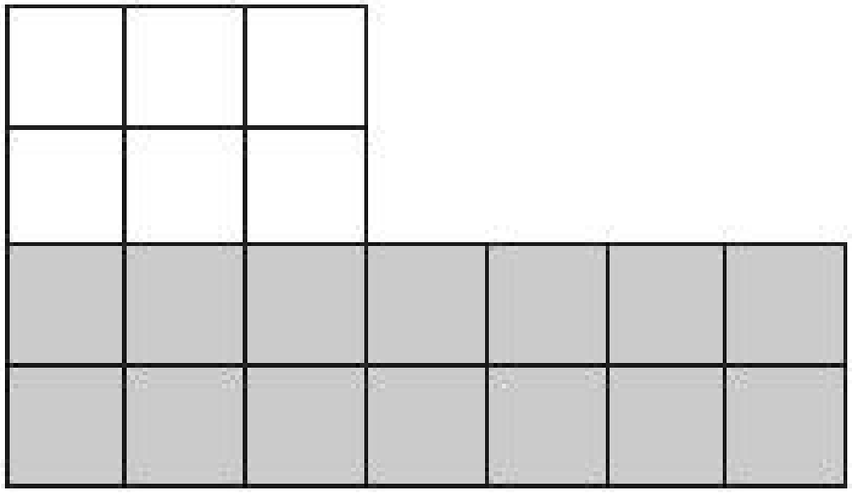

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Fluency Practice

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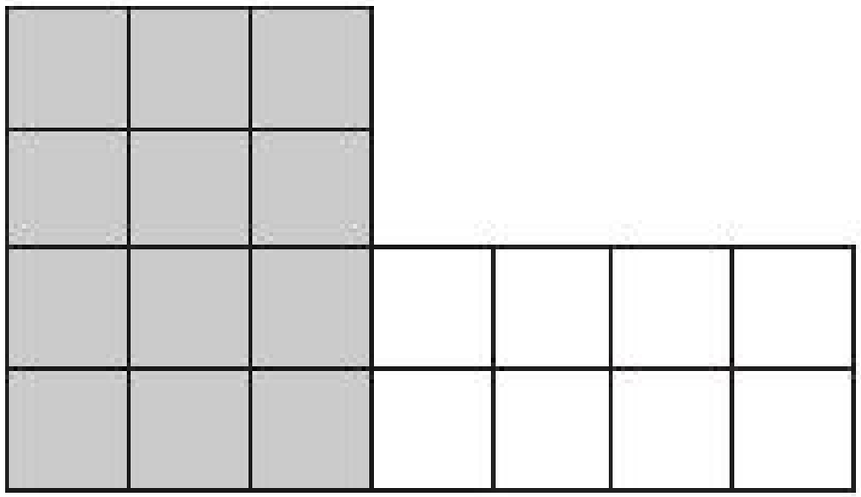

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___ sq units + ___ sq units = ___ sq units

Concept Development

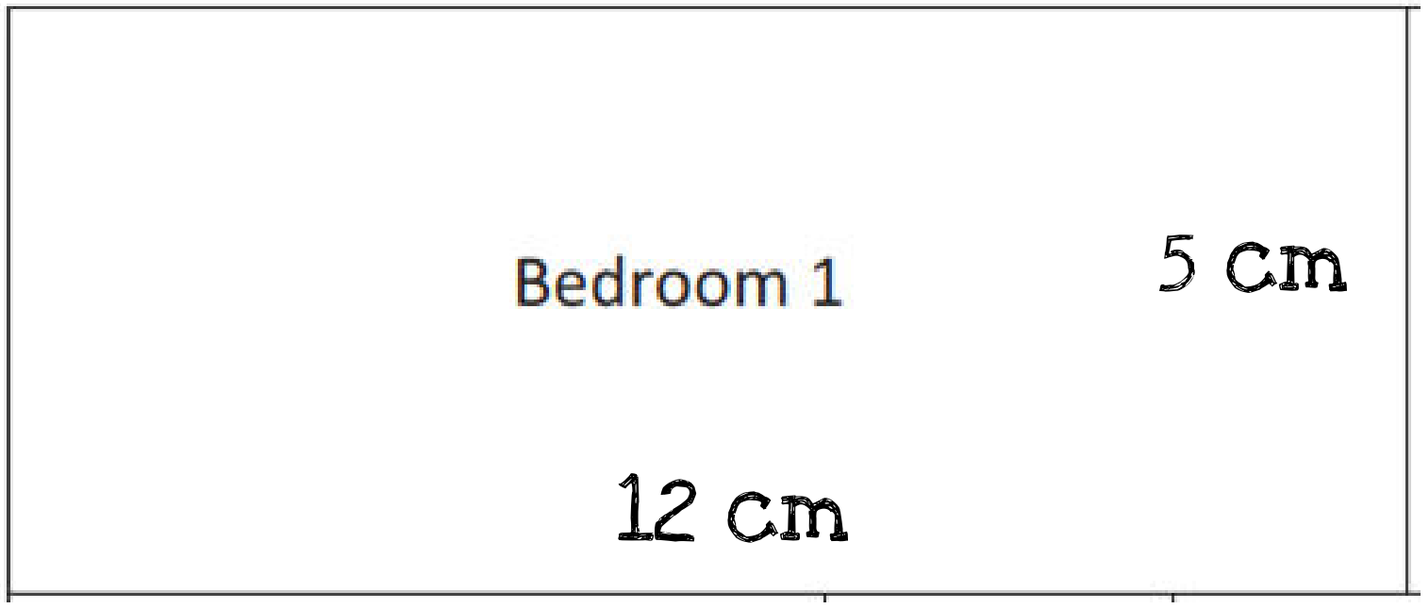
For the next two days, you are going to be architects. Today you are going to use a floor plan that your clients designed to find the area in square centimeters of each room in the house. Look at the floor plan. What will you need to do before you can find the areas?

We need to know the lengths and widths of the rooms.

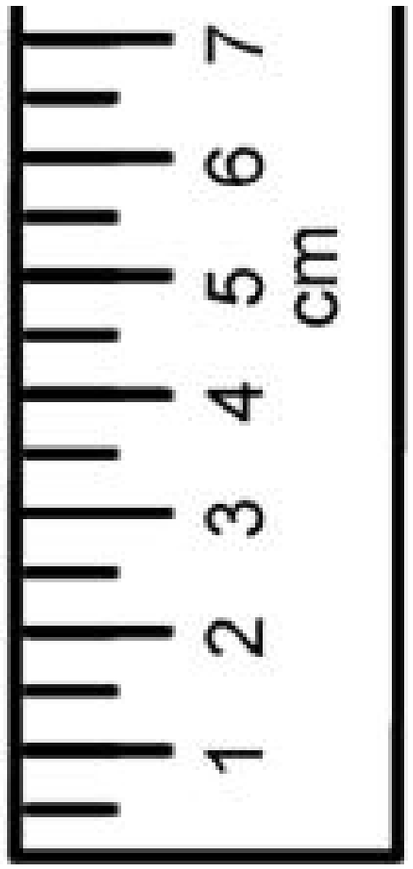
Use your ruler to measure the side lengths of Bedroom 1 in centimeters.

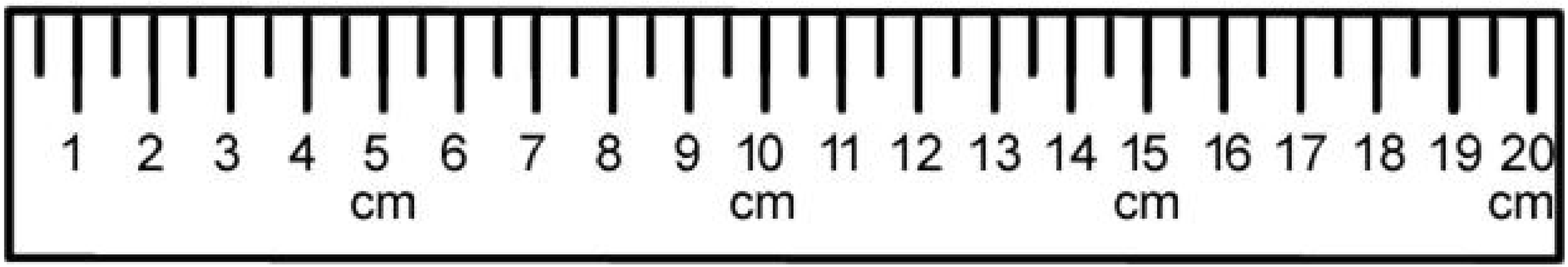
Concept Development

What is the width?



What is the length?





Concept Development

Write an expression to show how to find the area of Bedroom

5 × 12

What strategy can you use to find the area since this fact is so large?

The break apart or distribute strategy!

$$\begin{aligned} 5 \times 12 &= 5 \times (10 + 2) \\ &= (5 \times 10) + (5 \times 2) \\ &= 50 + 10 \end{aligned}$$

Concept Development

What about the rooms that aren't rectangles, how will you find their areas?

We can find the areas of smaller rectangles and add them together to get the area of a room that isn't rectangular.

Yes, that's the break apart and add strategy we just learned.

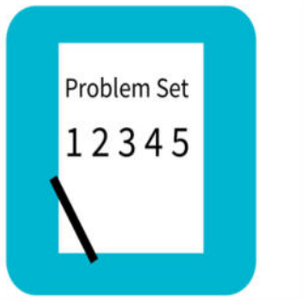
Or, we might be able to find the area of a large rectangle and then subtract the area of a smaller rectangle.

Concept Development

Look at the floor plan and use what we've learned about area to help you complete question 1

Work with a partner to find the areas of the rooms and the hallway in the floor plan.

Record the areas and the strategy you use to find each area in the chart in Problem 2.



Problem Set

Name _____ Date _____

1. Make a prediction: Which room looks like it has the biggest area?

2. Record the areas and show the strategy you used to find each area.

Room	Area	Strategy
Bedroom 1	_____ sq cm	
Bedroom 2	_____ sq cm	
Kitchen	_____ sq cm	

Debrief

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

Explain to a partner your choice for the prediction you made in Problem 1.

What have you learned about area that helped you make your prediction?

What strategy did you use to find the area of the living room?

Is there more than one way to break apart the living room into smaller rectangles? Explain two different ways to a partner.

Exit Ticket

Name _____ Date _____

Jack uses grid paper to create a floor plan of his room. Label the unknown measurements, and find the area of the items listed below.