## Eureka Math<sup>™</sup> Grade 3, Module 4

Student File\_B

Contains Sprint and Fluency, Exit Ticket, and Assessment Materials

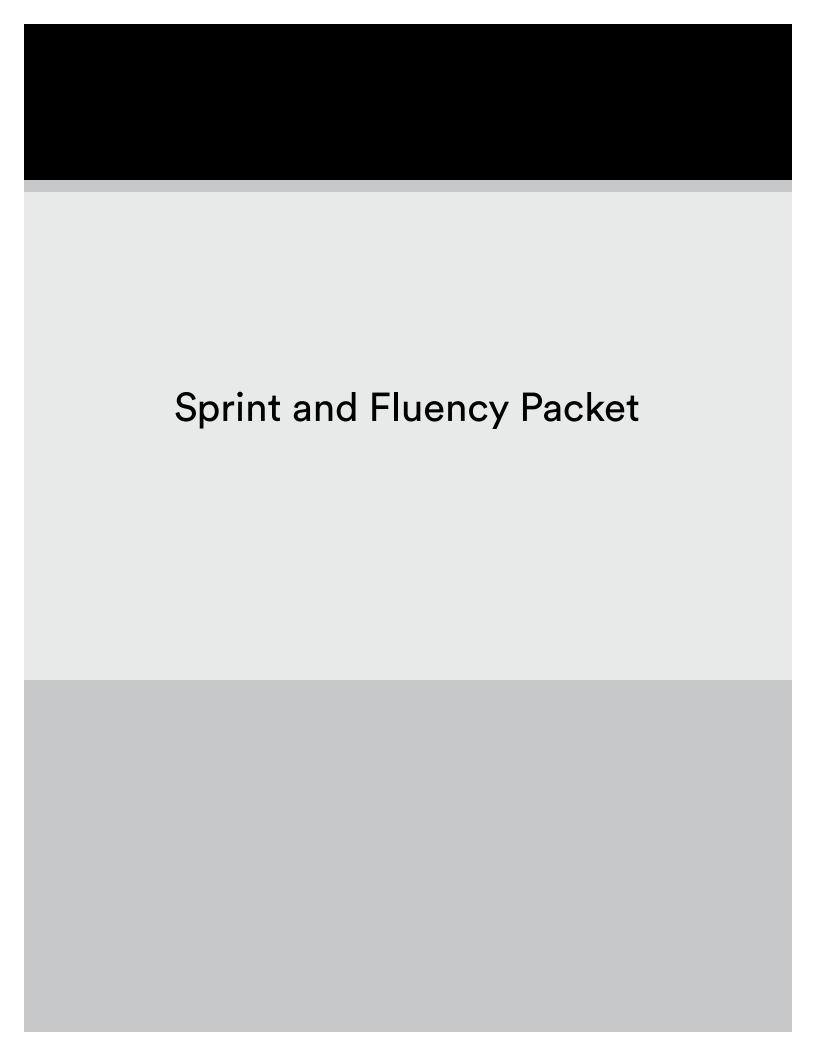
## Published by Great Minds®.

Copyright © 2015 Great Minds. No part of this work may be reproduced, sold, or commercialized, in whole or in part, without written permission from Great Minds. Non-commercial use is licensed pursuant to a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 license; for more information, go to <a href="http://greatminds.net/maps/math/copyright">http://greatminds.net/maps/math/copyright</a>.

Printed in the U.S.A.

This book may be purchased from the publisher at eureka-math.org

10 9 8 7 6 5 4 3 2 1



multiply by 4 (6-10)



multiply by 6 (6-10)



multiply by 7 (6-10)



multiply by 8 (6-10)

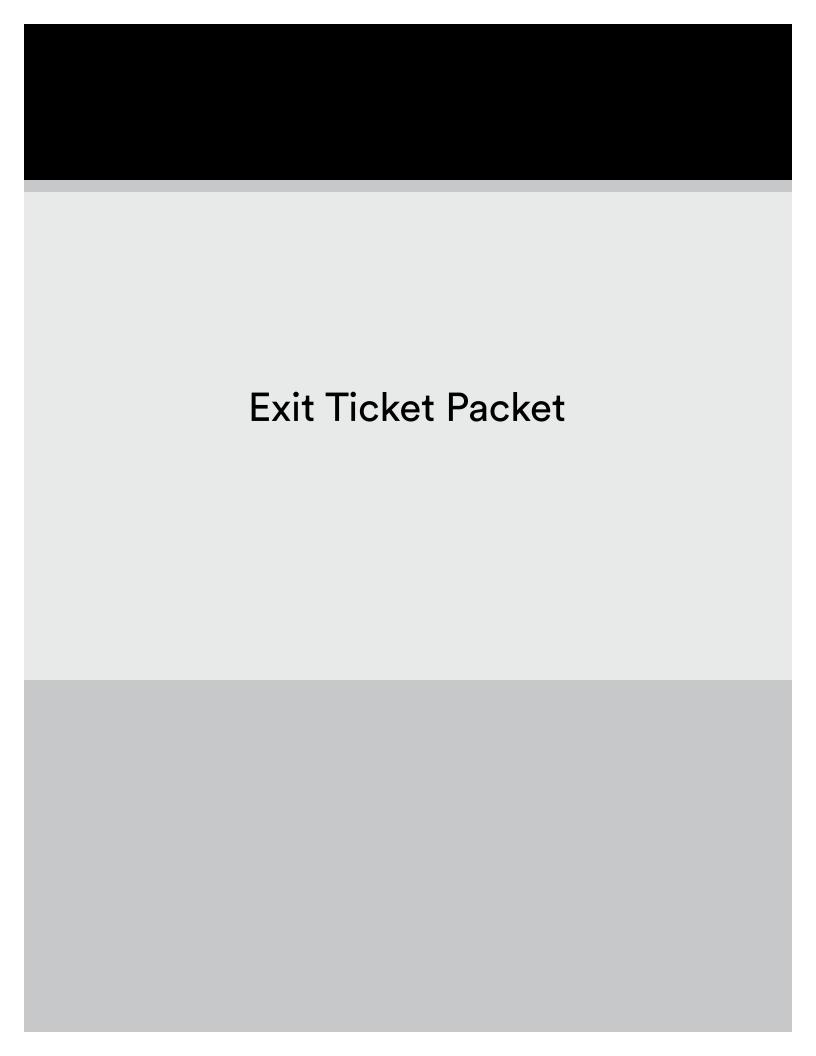


multiply by 9 (1-5)



multiply by 9 (6-10)





Name								Date			
Each		i	s 1 square	unit. Do	both rectangl	es have th	ne same a	rea? Exp	lain how y	you know	
	ſ				1						



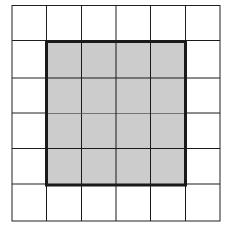
Na	me _				Date
1.	Eacl with	sam		nit. I squai	the area of the rectangle below. Then, draw a different rectangle nits.

2. Zach creates a rectangle with an area of 6 square inches. Luke makes a rectangle with an area of 6 square centimeters. Do the two rectangles have the same area? Why or why not?



Nar	ame										Date				-				
1.	Each is 1 square unit. Write the area of Rectangle A. T same area in the space provided.											Then,	draw	a diff	erent	: recta	ingle v	with tl	ne
			Α																
	Area	=	•	•	•		_	•	•							•	•		

is 1 square unit. Does this rectangle have the same area as Rectangle A? Explain. 2. Each



Name				Date	
Label the side lengths (	of each rectangl	le. Then, mato	th the rectangle	to its total area.	
a.					12 square centimeters
b					5 square inches
					6 square centimeters

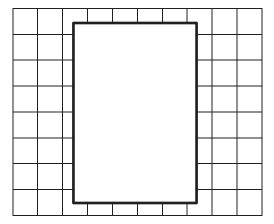
Name	Date	
•	_	

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.



Name	Date

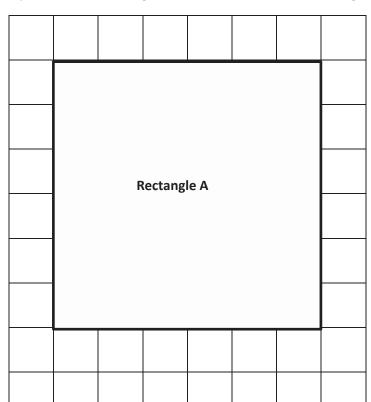
The tiled floor in Cayden's dining room has a rug on it as shown below. How many square tiles are on the floor, including the tiles under the rug?





Name	Date

1. Label the side lengths of Rectangle A on the grid below. Use a straight edge to draw a grid of equal size squares within Rectangle A. Find the total area of Rectangle A.

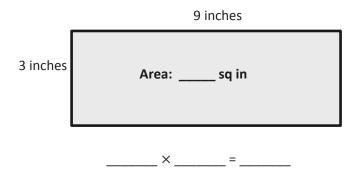


Area: \_\_\_\_\_ square units

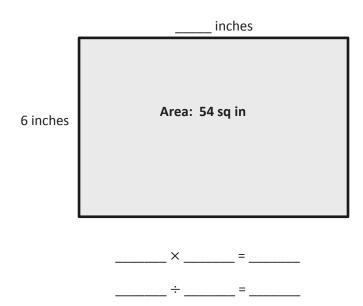
2. Mark makes a rectangle with 36 square centimeter tiles. Gia makes a rectangle with 36 square inch tiles. Whose rectangle has a bigger area? Explain your answer.

Name	Date

Write a multiplication equation to find the area of the rectangle below.



2. Write a multiplication equation and a division equation to find the unknown side length for the rectangle below.



Nar	me						Date
Lan	nar uses square tile	s to make	the 2 re	ctangle	es shown b	elow.	
					_		
		Rec	ctangle A	<b>\</b>		Rectangle	e B
1.	Label the side leng	gths of the	2 rectar	igles.			
2.	Write equations to	o find the a	areas of	the red	ctangles.		
	Area of Rectangle	A:				Are	ea of Rectangle B:

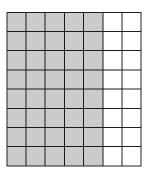
3. Lamar pushes Rectangle A next to Rectangle B to make a bigger rectangle. What is the area of the bigger rectangle? How do you know?



Name	Date	

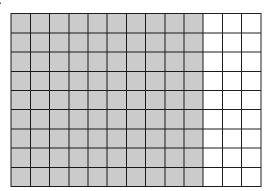
Label the side lengths of the shaded and unshaded rectangles. Then, find the total area of the large rectangle by adding the areas of the 2 smaller rectangles.

1.



Area: \_\_\_\_\_ square units

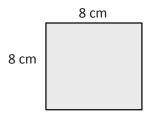
2.



Area: \_\_\_\_\_ square units

Name	Date	
Name	Date	

1. Find the area of the rectangle.



2. The rectangle below has the same area as the rectangle in Problem 1. Move the parentheses to find the unknown side lengths. Then, solve.

	cm
cm	

Area: $8 \times 8 = (4 \times 2) \times 8$
= 4 × 2 × 8
= x
=
Area: sq cm

Date

Name

1.	A painting has an area of 63 square inches.	One side length is 9 inches.	What is the other side length?
	9 inches		

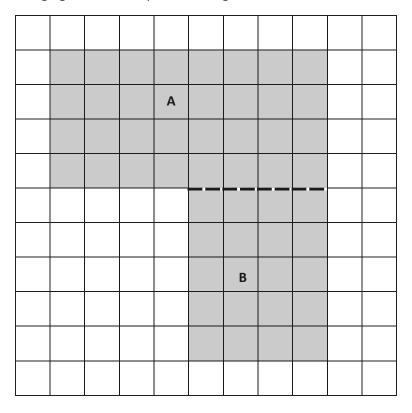
Area = 63 square inches

2. Judy's mini dollhouse has one floor and measures 4 inches by 16 inches. What is the total area of the dollhouse floor?



Name	Date	
Tallic		

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



Area of A + Area of B:	sq units +	sq units = _	sq units
------------------------	------------	--------------	----------

Name	Date				
Mary draws an 8 cm by 6 cm rectangle on her grid pap	er. She shades a square with a side length of 4 cm				

inside her rectangle. What area of the rectangle is left unshaded?



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.

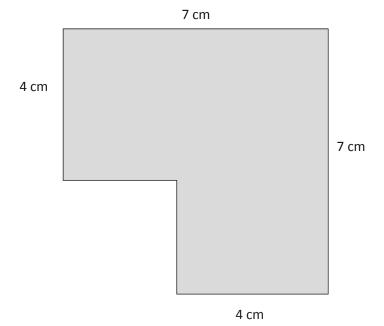
Desk													
												Tabl	e
									В	ed			
	Dresser												

Name	Equations	Total Area
a. Jack's Room		square units
b. Bed		square units
c. Table		square units
d. Dresser		square units
e. Desk		square units

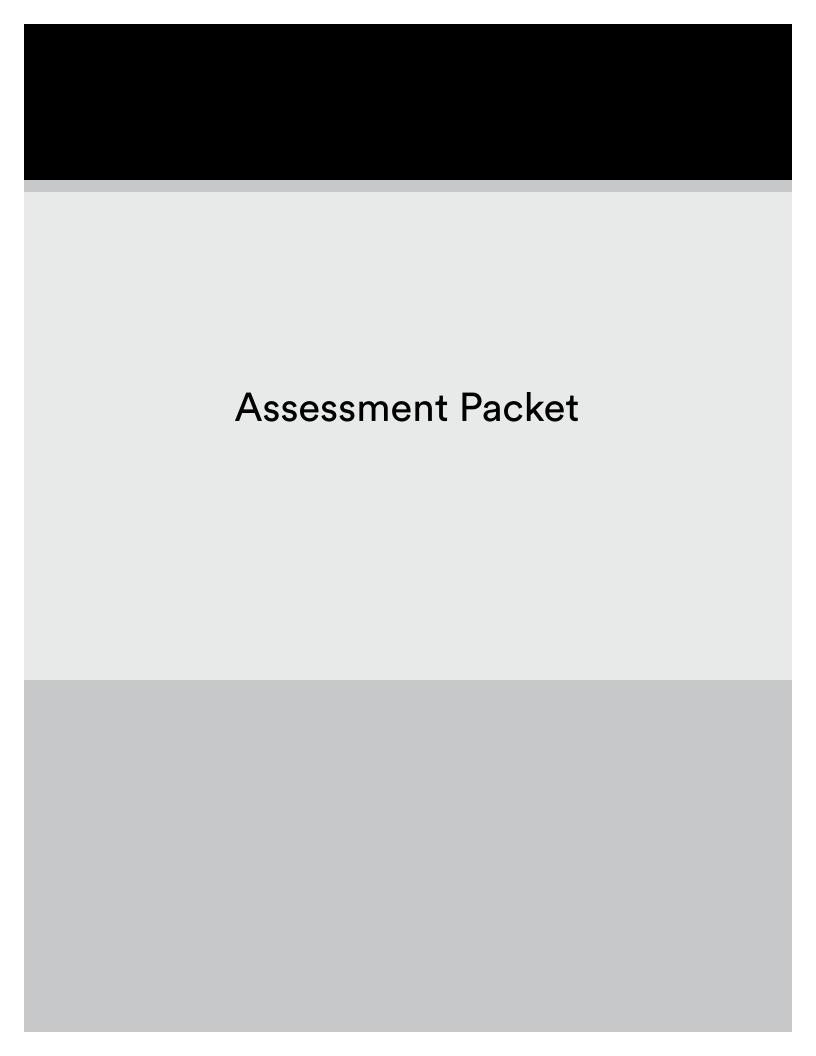


Name	Date	
Name:	Date	

Find the area of the shaded figure. Then, draw and label a rectangle with the same area.







Name		Date
1. Jas	smine and Roland each use unit	squares to tile a piece of paper. Their work is shown below.
	Jasmine's Array	Roland's Array
a.	Can one of the arrays be used array would you use? Explain	d to correctly measure the area of the piece of paper? If so, whose why.
b.	What is the area of the piece	of paper? Explain your strategy for finding the area.
C.	Jasmine thinks she can skip-c	ount by sixes to find the area of her rectangle. Is she correct? Ex



why or why not.

2.	aheim says you can create three rectangles with different side lengths using
	12 unit squares. Use pictures, numbers, and words to show what Jaheim is saying

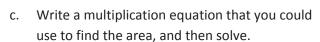
3. The area of a rectangle is 72 square units. One side has a length of 9 units. What is the other side length? Explain how you know using pictures, equations, and words.

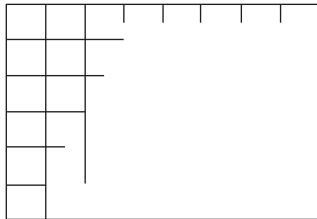


Module 4:

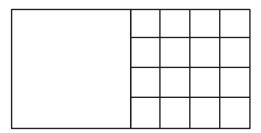
Multiplication and Area

- 4. Jax started to draw a grid inside the rectangle to find its area.
  - a. Use a straight edge to complete the drawing of the grid.
  - b. Write a skip-count sequence you could use to find the area.





5. Half of the rectangle below has been tiled with unit squares.



a. How many more unit squares are needed to fill in the rest of the rectangle?

b. What is the total area of the large rectangle? Explain how you found the area.

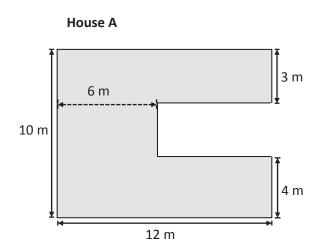


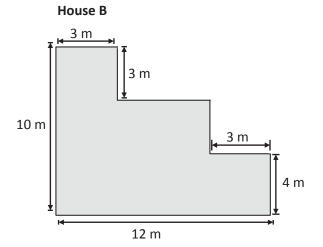
Na	me	 Date	
1.		as the sum of the two on the rig using numbers, pictures, and wo	

2. Draw three different arrays that you could make with 36 square inch tiles. Label the side lengths on each of your arrays. Write multiplication sentences for each array to prove that the area of each array is 36 square inches.



3. Mr. and Mrs. Jackson are buying a new house. They are deciding between the two floor plans below.



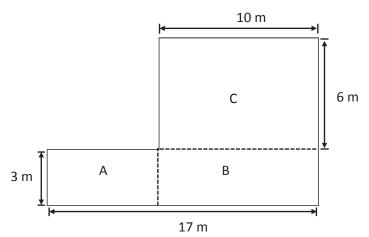


Which floor plan has the greater area? Show how you found your answer on the drawings above. Show your calculations below.



Module 4: Multiplication and Area

4. Superior Elementary School uses the design below for their swimming pool. Shapes A, B, and C are rectangles.



- a. Label the side lengths of Rectangles A and B on the drawing.
- b. Find the area of each rectangle.

c. Find the area of the entire pool. Explain how you found the area of the pool.