Grade 4 Area and Perimeter

Composite Rectangles

Split shapes into rectangles, add the pieces, take away notches, and go around the sides

Inside

Count the Squares p. 3
squares inside, edges around

Split It p. 4
each piece, then the total

Labeled Composites: Area p. 5
split on the dashed line

Labeled Composites: Perimeter p. 6
add every side once

Choose Your Split p. 7
any split that works

T Shapes p. 8
a bar and a stem

Area and Perimeter Together p. 9
both measures

Composite Stories 1 p. 10
tiles and carpet

Composite Stories 2 p. 11
fences and edging

Take Away a Notch p. 12
whole minus the notch

Area Code p. 13
self-checking

Mixed Review p. 14
all of it

Break the shape into rectangles you know, then put them back together.

A Strategy Spotlight with a worked example opens every page.

Traced to Georgia's K-12 Mathematics Standards. The teacher page lists every code. Answer keys follow the student pages. Every side is labeled; figures are drawn to scale.

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TOUCHSTONE STANDARDS | Teacher Page: Standards and How to Use

Georgia's K-12 Mathematics Standards (2021, effective SY2023-24) covered

Standard 4.GSR.8: Identify and draw geometric objects, classify polygons based on properties, and solve problems involving area and perimeter of rectangular figures.

Code	Element (GaDOE wording)	Pages
4.GSR.8.3	Solve problems involving area and perimeter of composite rectangles involving whole numbers with known side lengths.	3 to 14

GaDOE note we follow (4.GSR.8.3, Age/Developmentally Appropriate): "Students should not be expected to find unknown side lengths when exploring composite rectangles."

Limits we hold to: every side of every labeled figure is printed, whole numbers from 2 to 12; a key split uses only pieces whose two dimensions are printed sides; U shapes appear only on Take Away a Notch, found as the whole rectangle minus the notch; shapes made of three rectangles appear only on the grid pages, where the grid shows every length. Pieces are at most 144 square units, totals at most 400, perimeters at most 100. Units are centimeters, meters, and plain units.

Page map

Page	Section	Items	Code	Focus
3	Count the Squares	4	4.GSR.8.3	count squares and edges
4	Split It	3	4.GSR.8.3	grid, split drawn
5	Labeled Composites: Area	3	4.GSR.8.3	labeled, split drawn
6	Labeled Composites: Perimeter	3	4.GSR.8.3	add every side
7	Choose Your Split	4	4.GSR.8.3	any printed split
8	T Shapes	3	4.GSR.8.3	bar plus stem
9	Area and Perimeter Together	3	4.GSR.8.3	two-part: area, perimeter
10	Composite Stories 1	2	4.GSR.8.3	area stories
11	Composite Stories 2	2	4.GSR.8.3	perimeter stories
12	Take Away a Notch	3	4.GSR.8.3	whole minus notch
13	Area Code	3	4.GSR.8.3	self-checking
14	Mixed Review	3	4.GSR.8.3	Milestones formats

Our Approach: Part-Whole Thinking

A composite rectangle breaks into rectangles students already know. Find each piece, then put the pieces back together for the whole area; or start with the whole rectangle around it and take away the notch. Perimeter goes around the outside once, so every side counts one time. Model the Strategy Spotlight out loud first, then let students try.

Teaching notes

Every side of every labeled figure is printed, so no page asks for an unknown side length. A split works when both pieces take their two dimensions from printed sides. On Choose Your Split, any split like that is correct; the key shows one. A U shape has no such split, so U shapes appear only on Take Away a Notch. Figures are drawn to scale within each figure. Three-rectangle shapes appear only on the grid pages, where the grid shows every length. Lengths are whole numbers up to 12; units are centimeters, meters, and plain units.

How to use

Work in order, 15 to 20 minutes a page: counting and splitting on grids (pages 3 and 4), labeled figures (5 to 9), stories (10 and 11), taking away a notch (12), the code page, then Mixed Review. Keys are pages 15 to 26. Formats mirror Milestones: number entry, a two-part item, multiple choice, and select all. Print at 100% (actual size, not Fit to Page); the bar below should measure 2 inches.

Check bar:  2 inches at 100%

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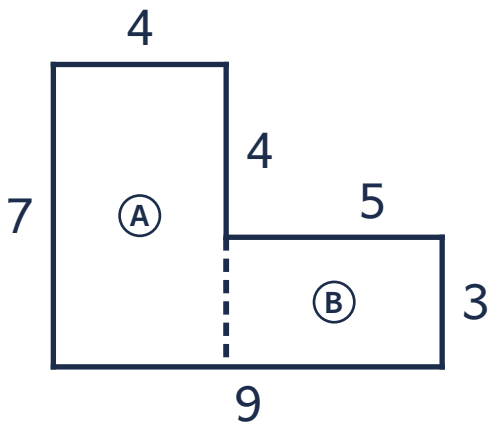
Labeled Composites: Area

Name _____

Every length is in centimeters; find each piece, then add for the whole area.

Strategy Spotlight: Split, Then Add
Think: split on the dashed line: 5 × 7 = 35 and 7 × 7 = 49, so 35 + 49 = 84.

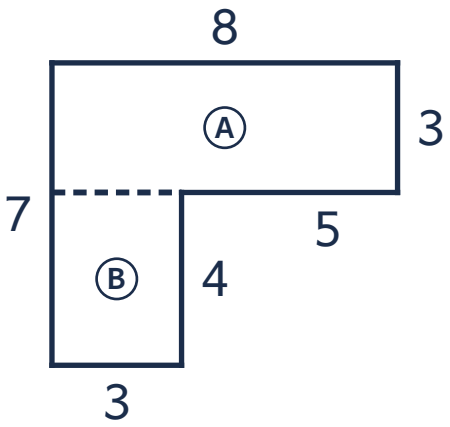
1



A ☐ **B** ☐

Area ☐ **square centimeters**

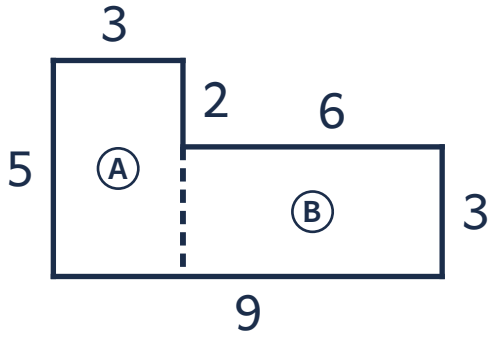
2



A ☐ **B** ☐

Area ☐ **square centimeters**

3



A ☐ **B** ☐

Area ☐ **square centimeters**

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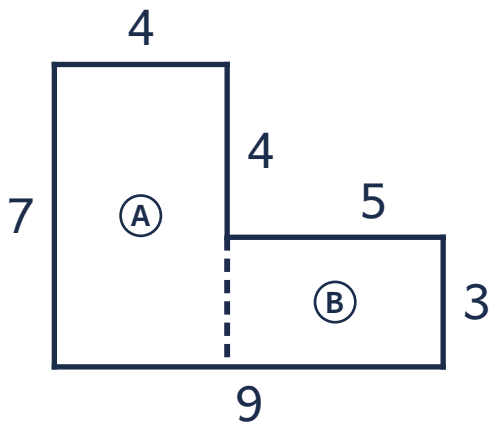
Answer Key: Labeled Composites: Area

Name _____

Every length is in centimeters; find each piece, then add for the whole area.

Strategy Spotlight: Split, Then Add
Think: split on the dashed line: 5 × 7 = 35 and 7 × 7 = 49, so 35 + 49 = 84.

1

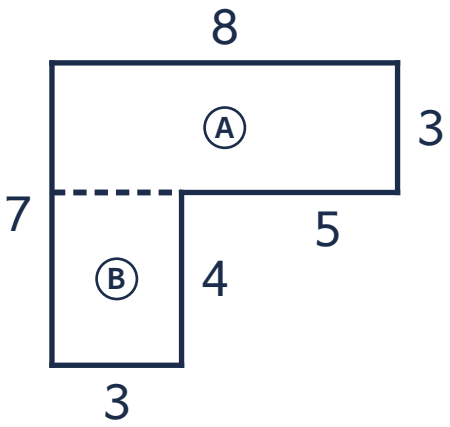


A **28** B **15**

Area **43** square centimeters

4 × 7 = 28 5 × 3 = 15
28 + 15 = 43

2

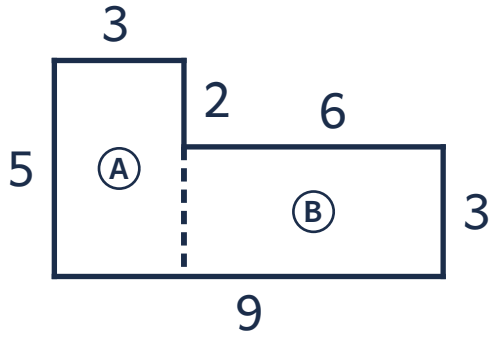


A **24** B **12**

Area **36** square centimeters

8 × 3 = 24 3 × 4 = 12
24 + 12 = 36

3



A **15** B **18**

Area **33** square centimeters

3 × 5 = 15 6 × 3 = 18
15 + 18 = 33

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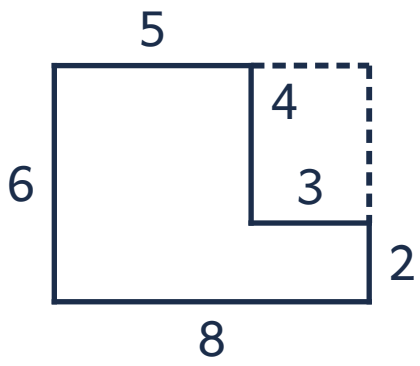
Take Away a Notch

Name _____

Find the whole rectangle and the notch, then subtract to find the area.

Strategy Spotlight: Whole Minus Notch
Think: the whole is 8 × 11 = 88; the notch is 5 × 7 = 35; so 88 − 35 = 53.

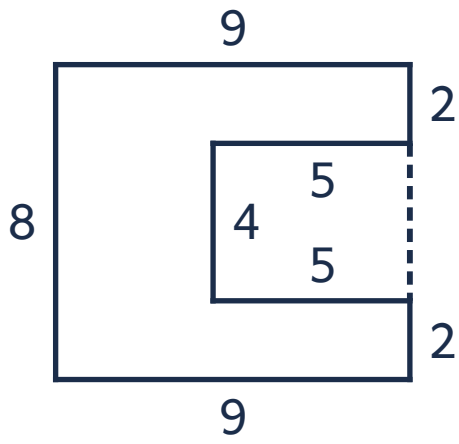
1



Rectangle ☐ **Notch** ☐

Area ☐ **square units**

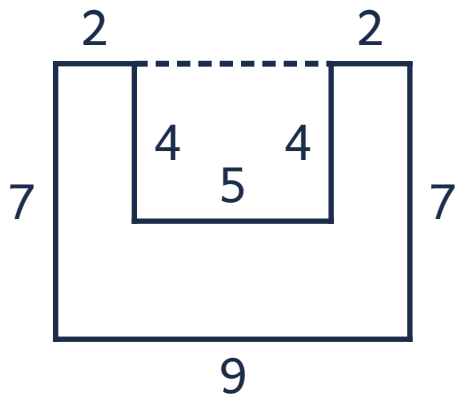
2



Rectangle ☐ **Notch** ☐

Area ☐ **square units**

3



Rectangle ☐ **Notch** ☐

Area ☐ **square units**

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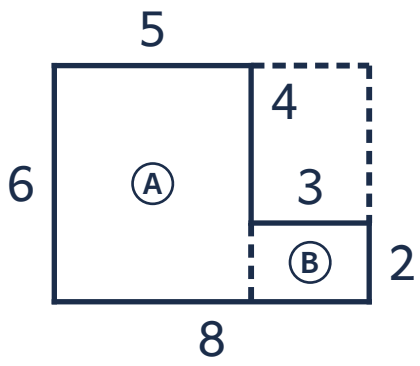
Answer Key: Take Away a Notch

Name _____

Find the whole rectangle and the notch, then subtract to find the area.

Strategy Spotlight: Whole Minus Notch
Think: the whole is 8 × 11 = 88; the notch is 5 × 7 = 35; so 88 − 35 = 53.

1

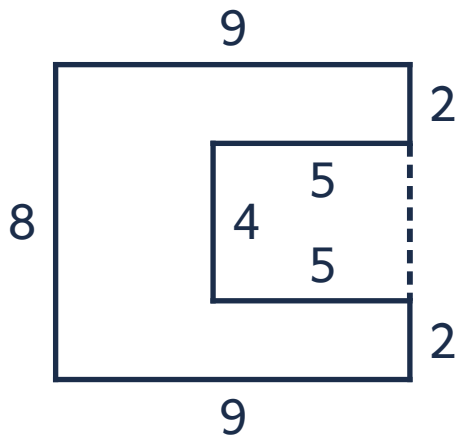


Rectangle **48** **Notch** **12**

Area **36** **square units**

8 × 6 = 48 3 × 4 = 12 48 − 12 = 36
5 × 6 = 30 3 × 2 = 6 30 + 6 = 36

2

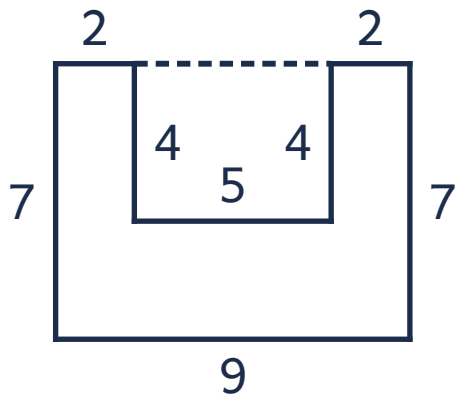


Rectangle **72** **Notch** **20**

Area **52** **square units**

9 × 8 = 72 5 × 4 = 20 72 − 20 = 52

3



Rectangle **63** **Notch** **20**

Area **43** **square units**

9 × 7 = 63 5 × 4 = 20 63 − 20 = 43

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