imagine IM®

Grade 3

Teacher Resource Pack (TRP) Sampler

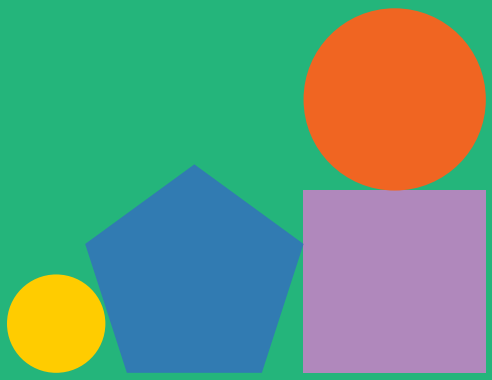
This Imagine IM Teacher Resource Pack Sampler includes selections of the following materials:

- Lesson Blackline Masters
- Assessments
- Center Materials

These materials are available as print reproducibles in the complete Teacher Resource Pack and online from the digital platform.

Family Support Materials	2
Lesson Blackline Masters	5
Unit Monitoring Sheets	28
Unit Assessments	31
Center Materials	46

*The sampler features materials from Grade 3 Unit 2.
The resources are representative of what you will see in all of the units.



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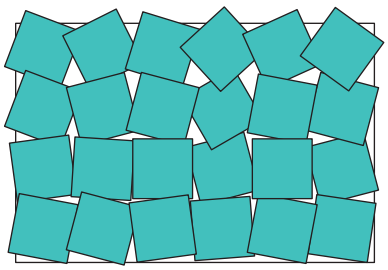
Unit 2

Family Support Materials

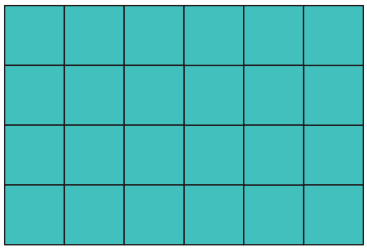
In this unit, students learn about the concept of area and relate area to multiplication and addition.

Section A: Concepts of Area Measurement

In this section, students make sense of the area of a flat shape. They learn that the area of a shape is the amount of space the shape covers, and that area can be measured by the number of square units that cover the shape, without gaps or overlaps. Students explore this idea by tiling shapes, with squares, and counting the number of squares.



We cannot measure area by the number of squares when they cover a shape with gaps and overlaps.

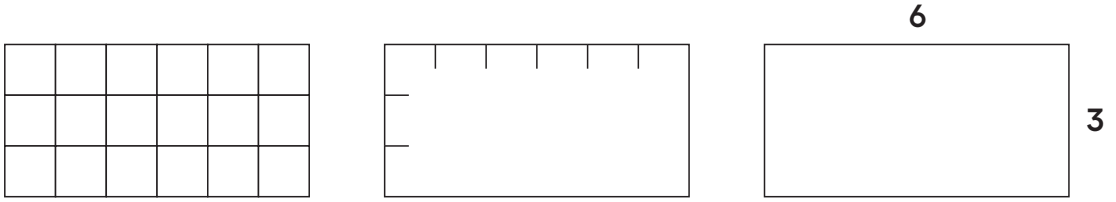


We can measure the area of this shape by the number of squares because the squares tile the shape.

Section B: Relate Area to Multiplication

In this section, students relate the area of a rectangle to multiplication. They see that a rectangle can be tiled with squares in equal-size rows (or columns). If the rectangle is 6 units by 4 units, there are 6 groups of 4 or 4 groups of 6. The number of square units is then 6 × 4 or 4 × 6.

Students come to understand that multiplying the side lengths of a rectangle gives the same number of squares as counting them. A rectangle that is 3 units by 6 units can be tiled with 3 rows of 6 squares, so its area is 3 × 6 or 18 square units.



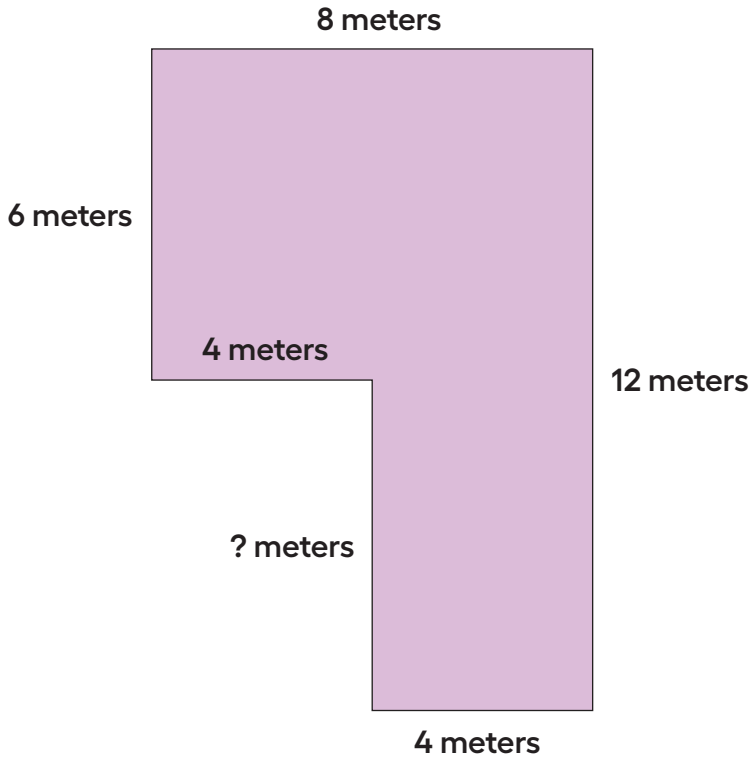
Students then use these ideas to solve real-world story problems related to area.

Family Support Materials

Section C: Find the Area of a Figure Composed of Rectangles

In this section, students find the area of a figure composed of rectangles. They do so by decomposing (breaking apart) the figure into non-overlapping rectangles, finding the area of each rectangle, and adding all the areas.

Students also use the structure of rectangles to find missing side lengths in figures composed of rectangles.

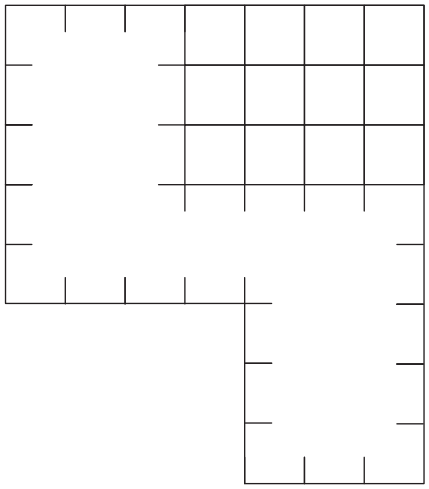


Unit 2

Family Support Materials

Try it at home!

Near the end of the unit, ask your student to find the area of this figure:



Questions that may be helpful as they work:

- How can this figure be decomposed into rectangles?
- How many rows (or columns) are there in each rectangle?
- What multiplication expressions would you use to find the area?
- Where do we see this kind of design in our home or in places we visit?

Unit 2 Family Support video



Go Online

Go online to find videos for this unit.

ilclass.com/r/10447318

Please log in to the site before using the QR code or URL.

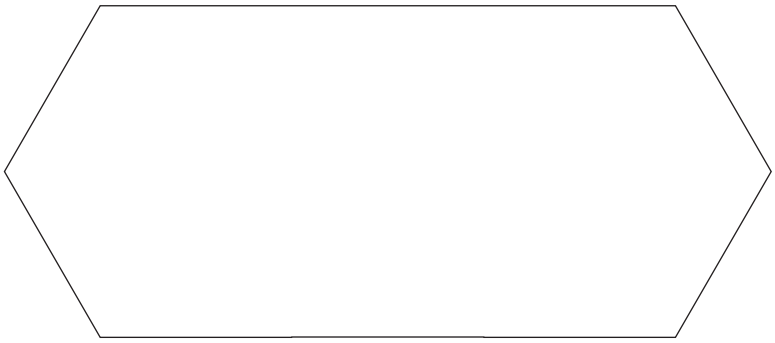
Unit 2

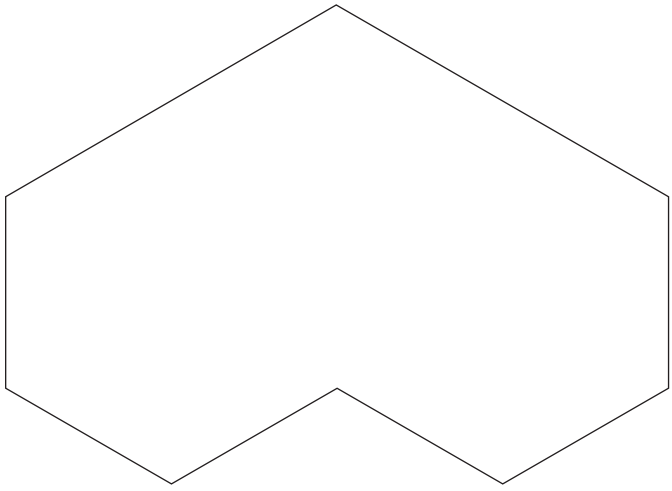
Lesson Blackline Masters

lesson and activity	title	students per copy	written on	requires cutting	card stock needed	color paper needed	multiple use	center material	page number
1.2	Pattern Blocks to Compare Shapes Handout	1	no	no	no	no	no	no	66
2.2	Use Square Tiles to Measure Area Handout	2	no	no	no	no	no	no	68
3.1	Time to Tile Handout	1	no	no	no	no	no	no	74
3.2	Card Sort Rectangles Cards	2	no	yes	no	no	no	no	76
5.1	Match Expressions and Areas Rectangles	30	no	no	no	no	no	no	77
6.1	Same Rectangle, Different Units Handout	2	yes	no	no	no	no	no	84
6.2	Same Rectangle, Different Units Handout	2	yes	no	no	no	no	no	84
10.2	Centimeter Grid Paper – Standard	2	yes	no	no	no	no	yes	86
15.2	New Bed and Desk Handout	2	yes	no	no	no	no	no	87

All resources are available on your district's *IL Classroom.com* site to support printing and copying.

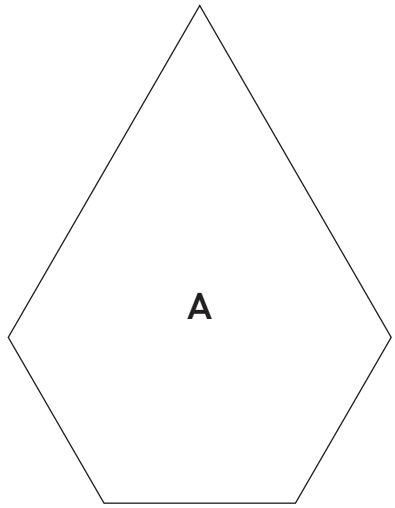
"What do you notice? What do you wonder?"

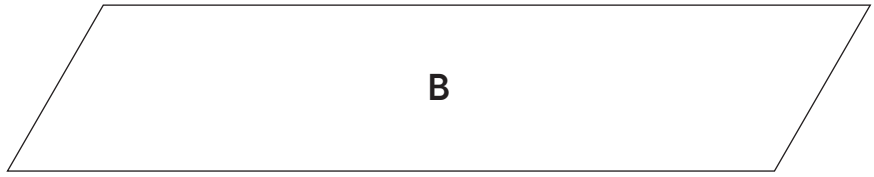


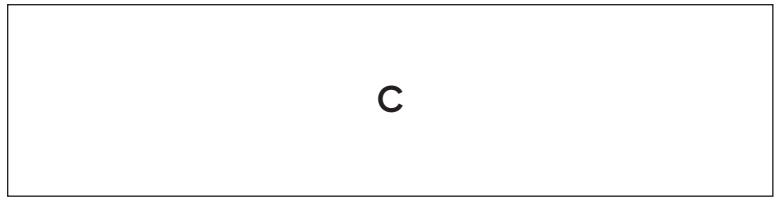


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Use pattern blocks to decide which shape covers the most space.
Be ready to explain your reasoning.



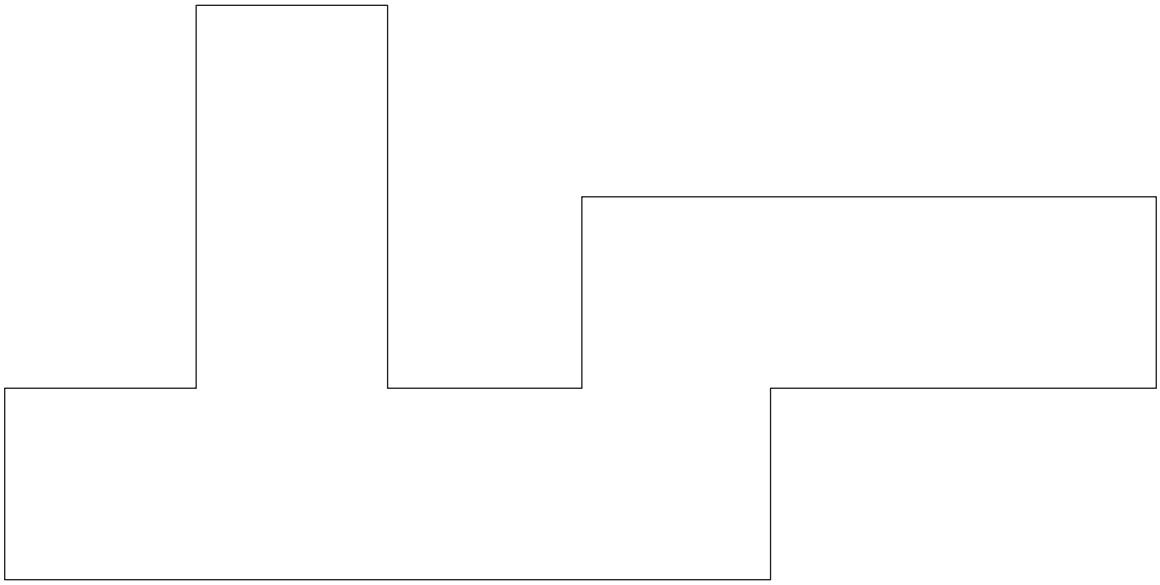




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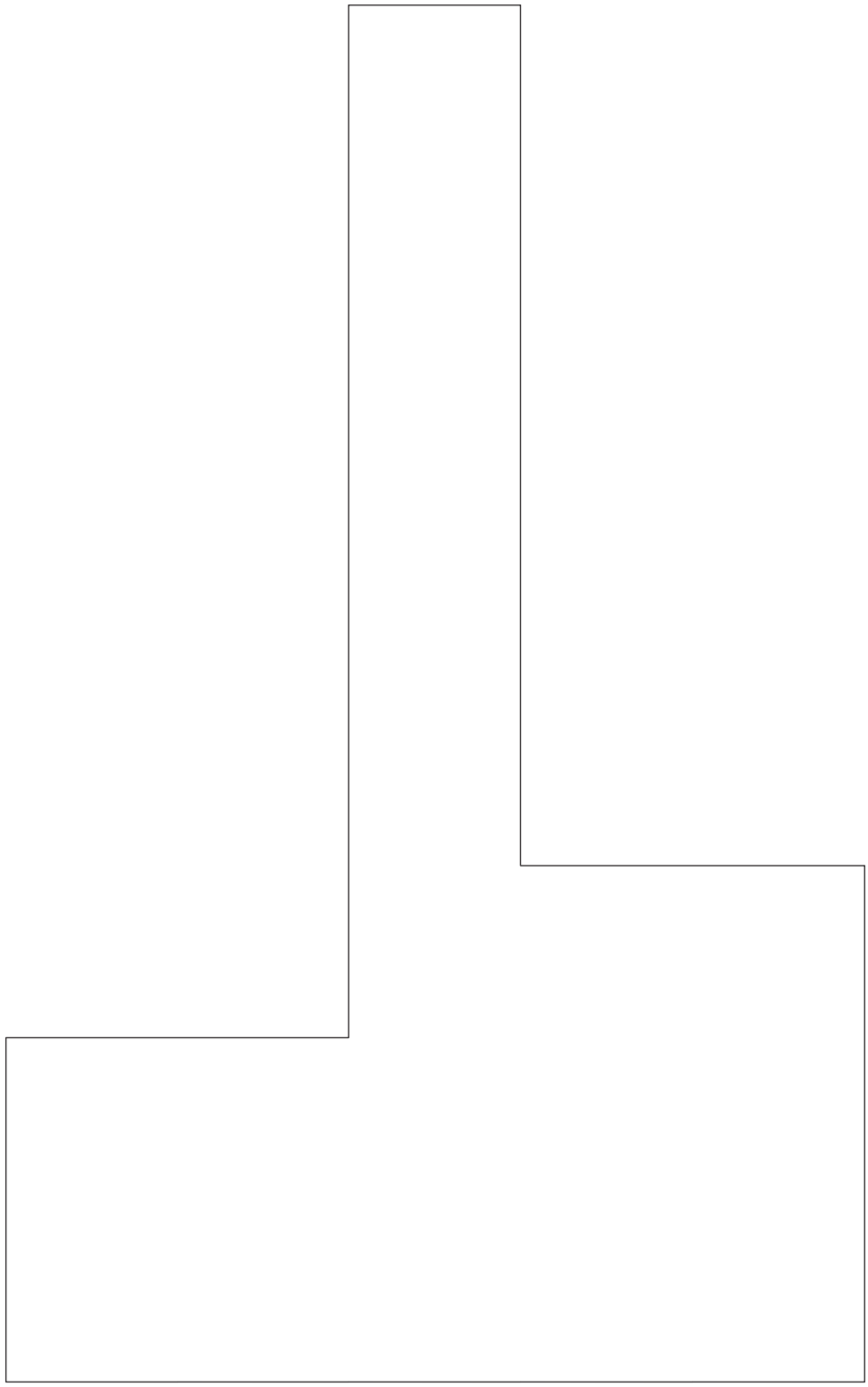
Use square tiles to find the area of each shape.
Be prepared to explain your reasoning.

1



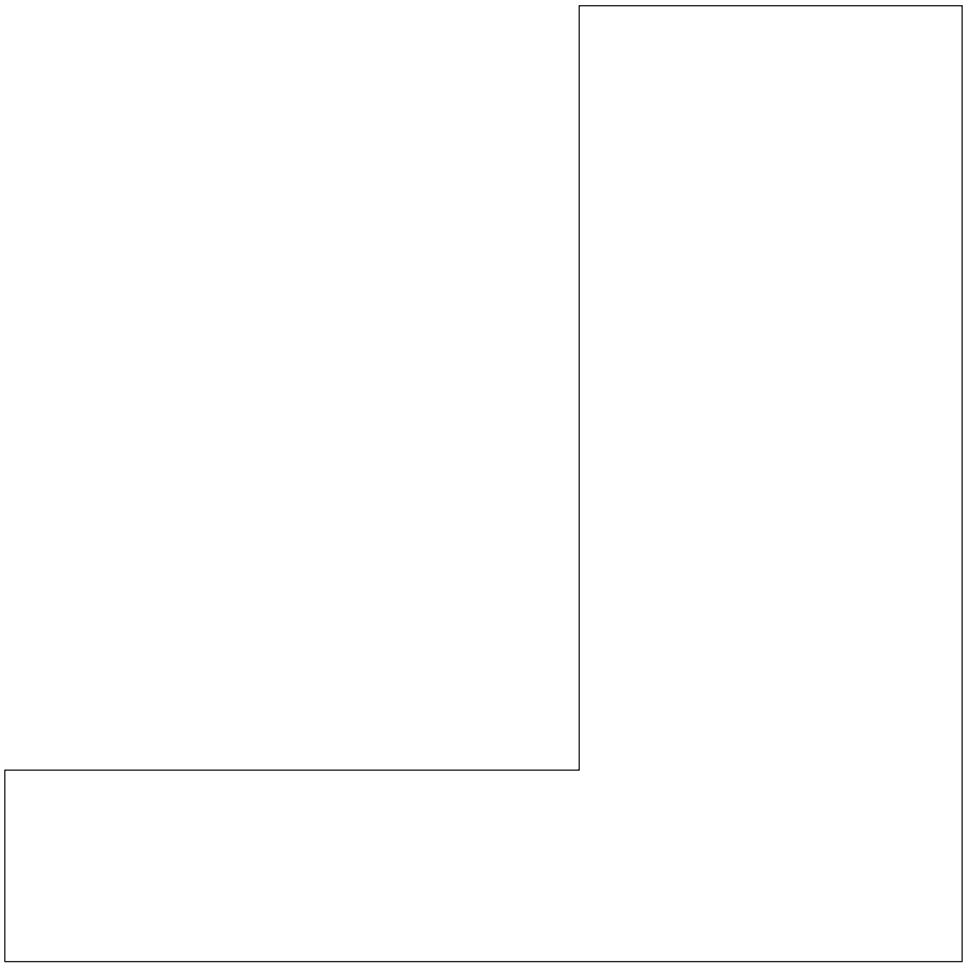
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2



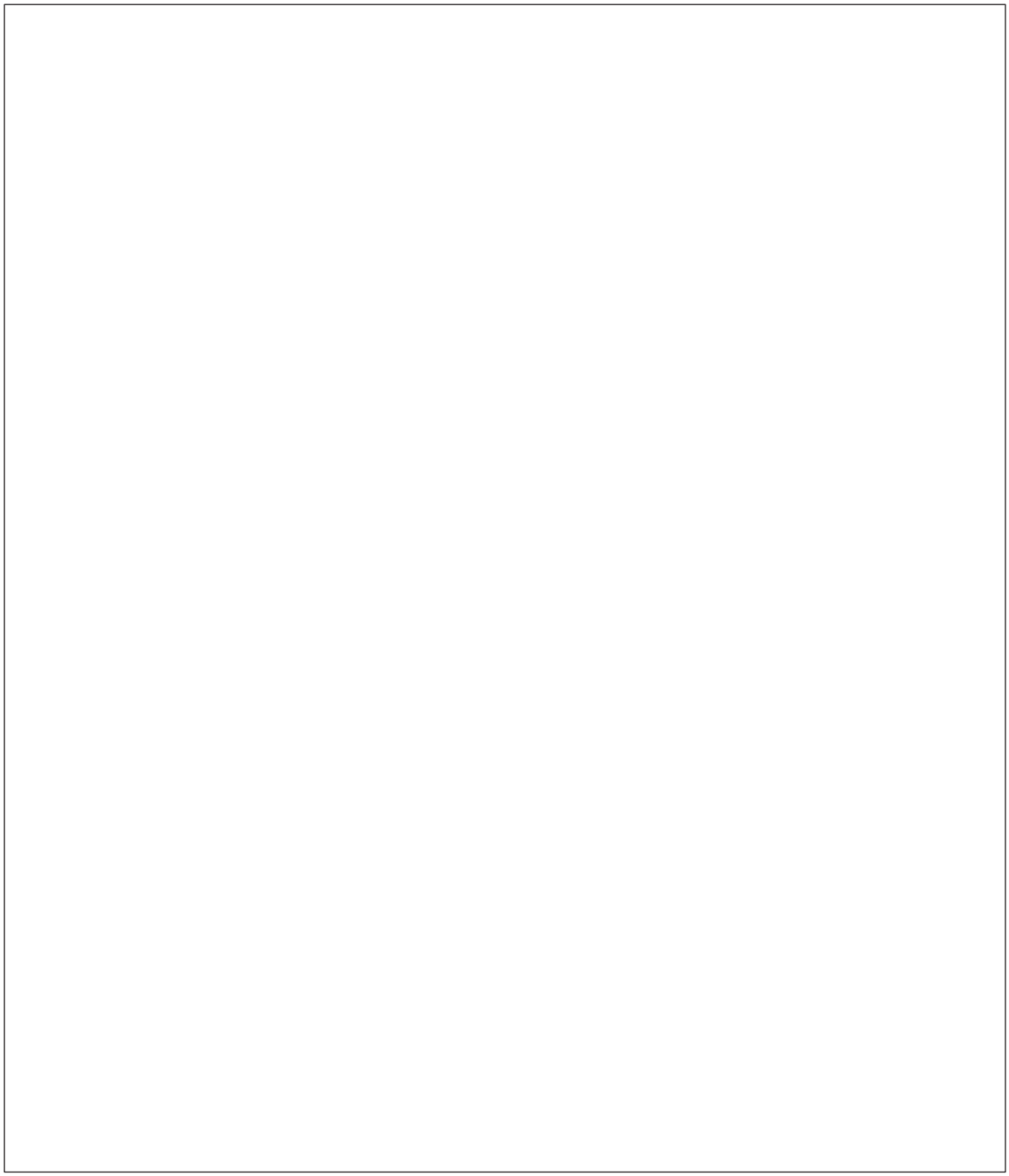
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3



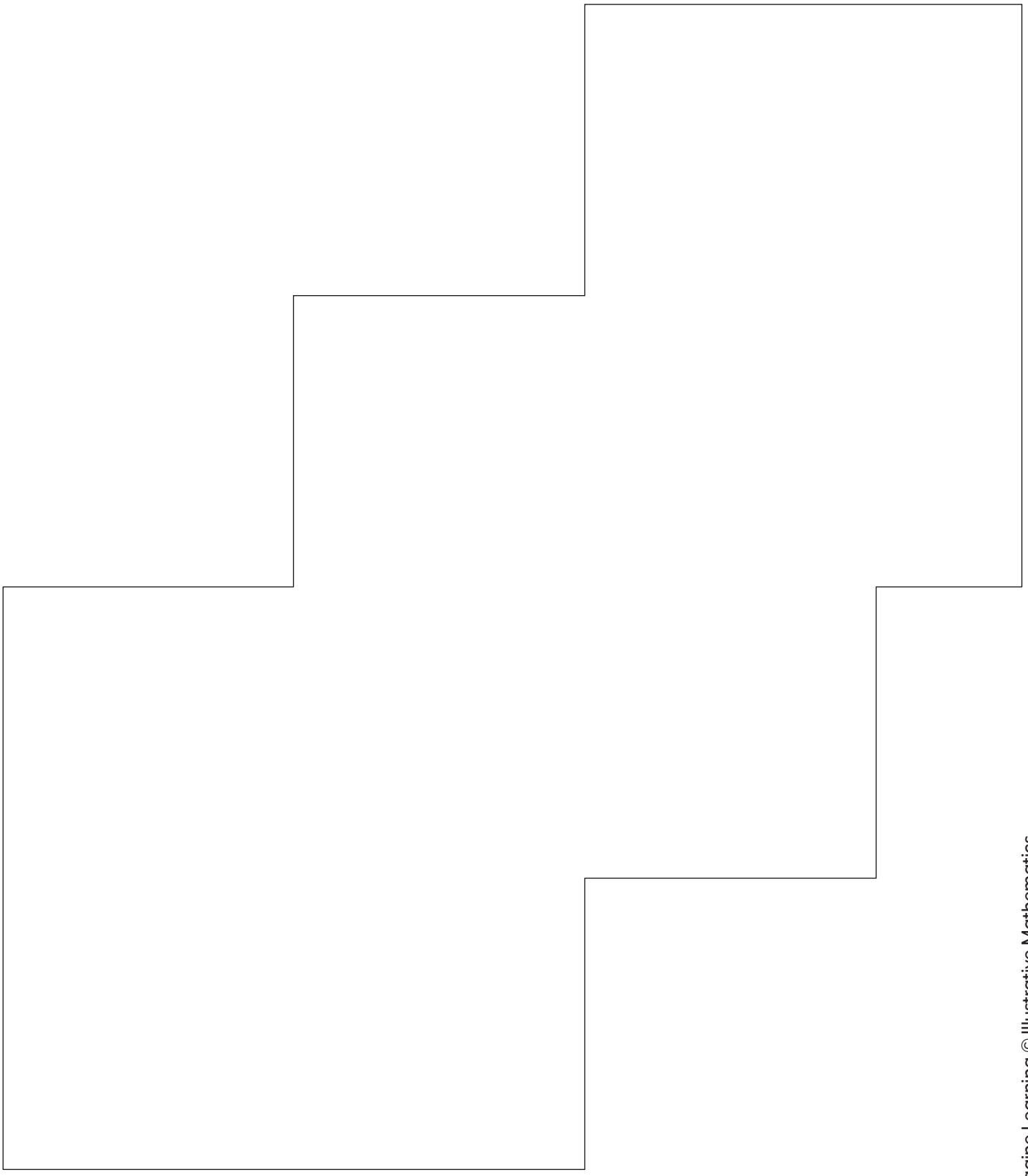
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4



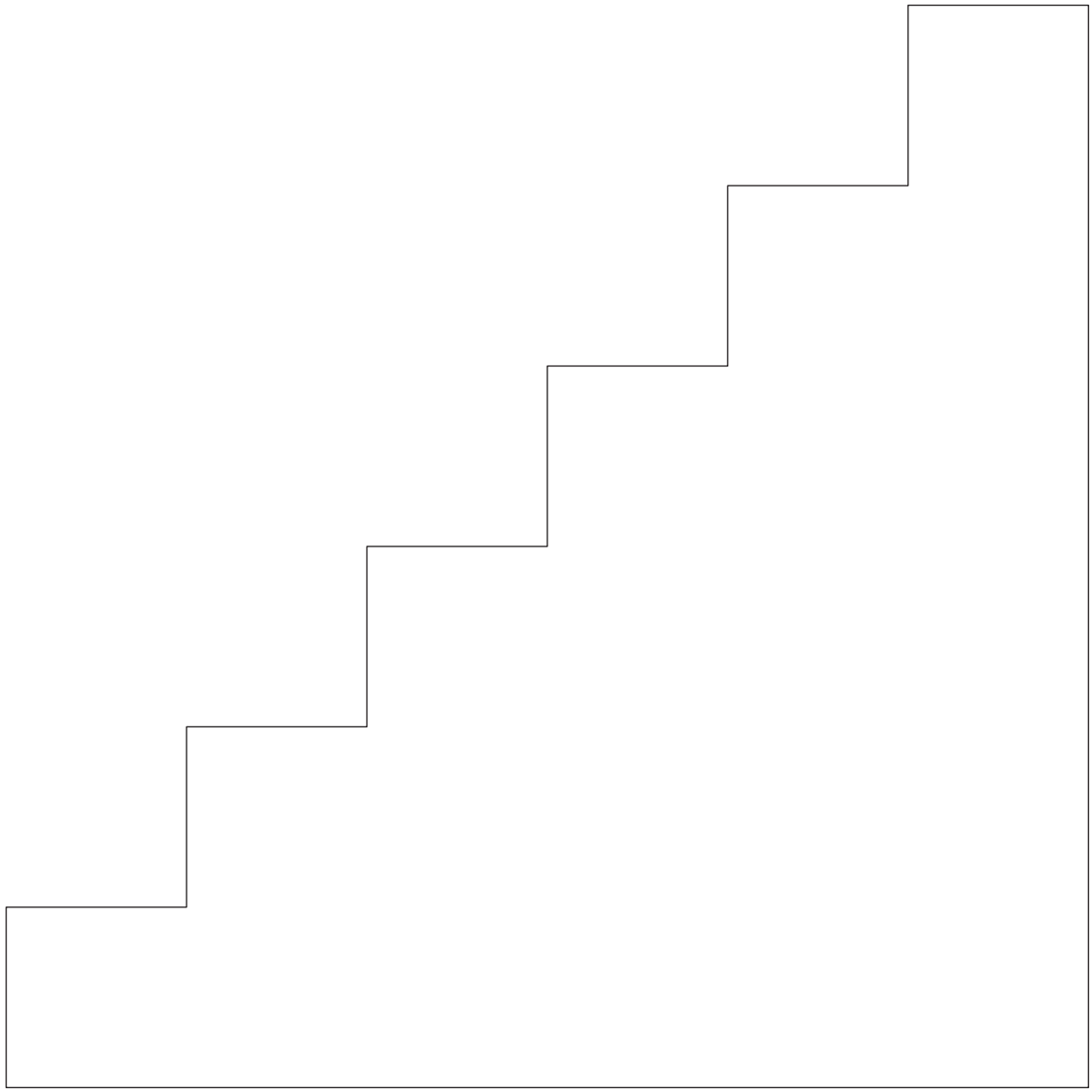
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5



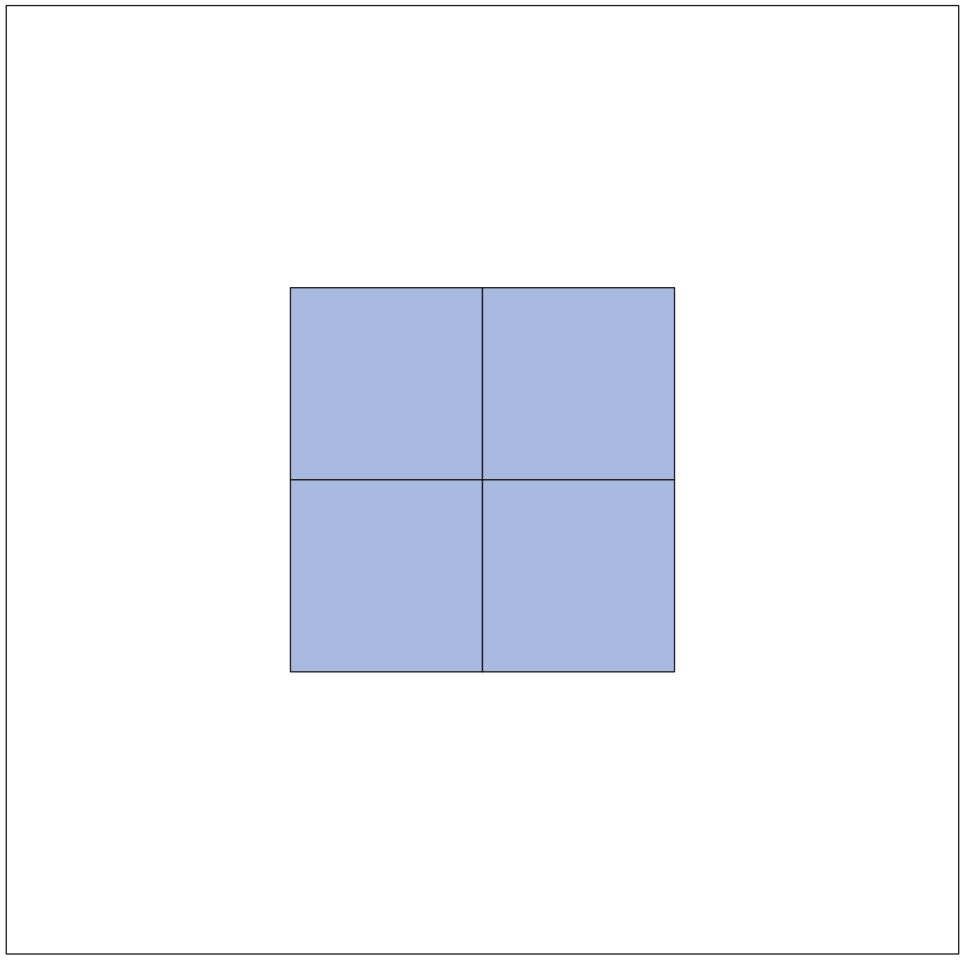
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6

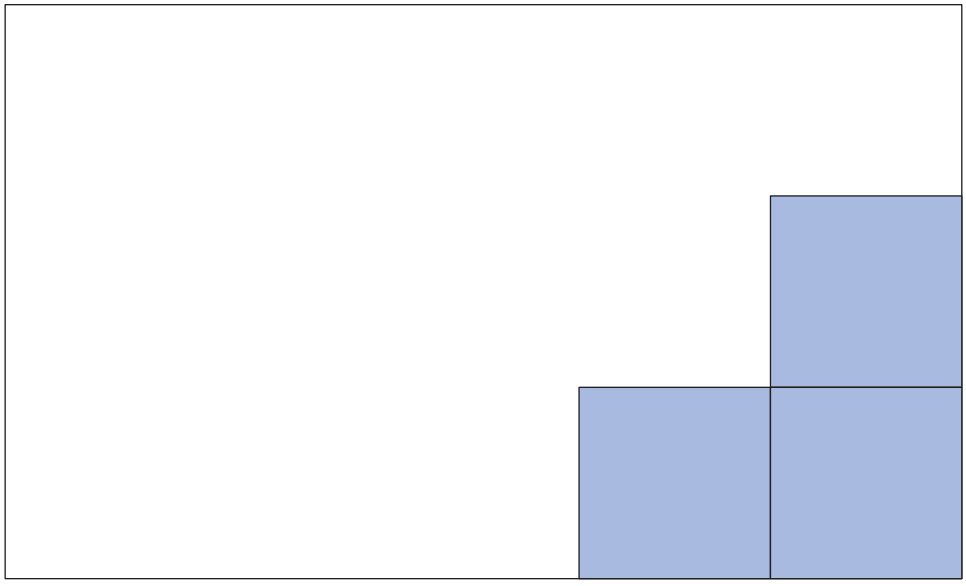


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a.

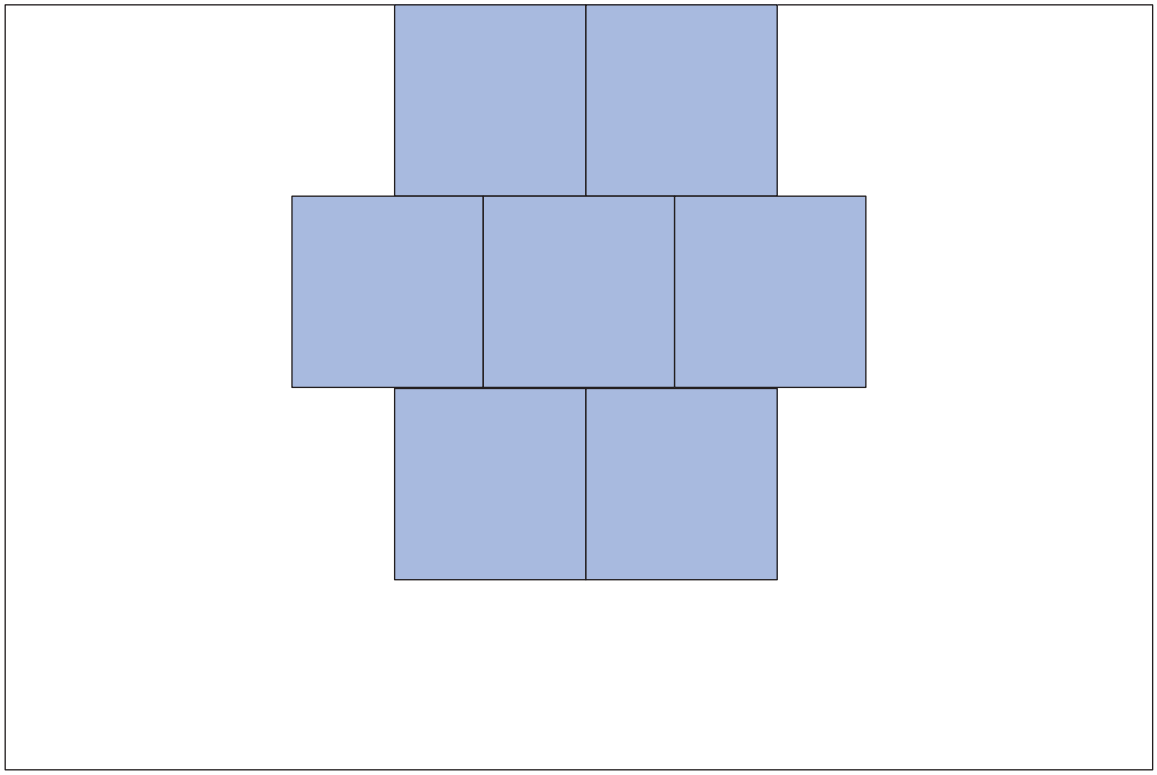


b.

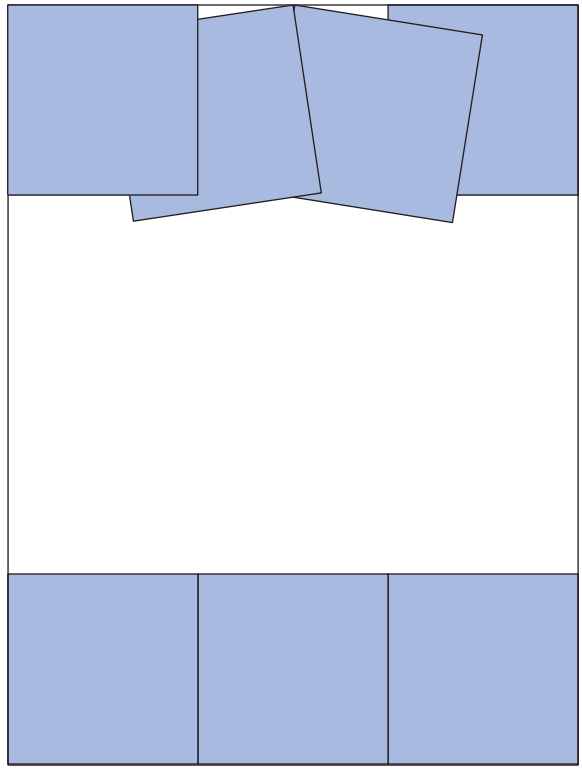


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c.



d.



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Card Sort: Rectangles

A

Card Sort: Rectangles

B

Card Sort: Rectangles

C

Card Sort: Rectangles

D

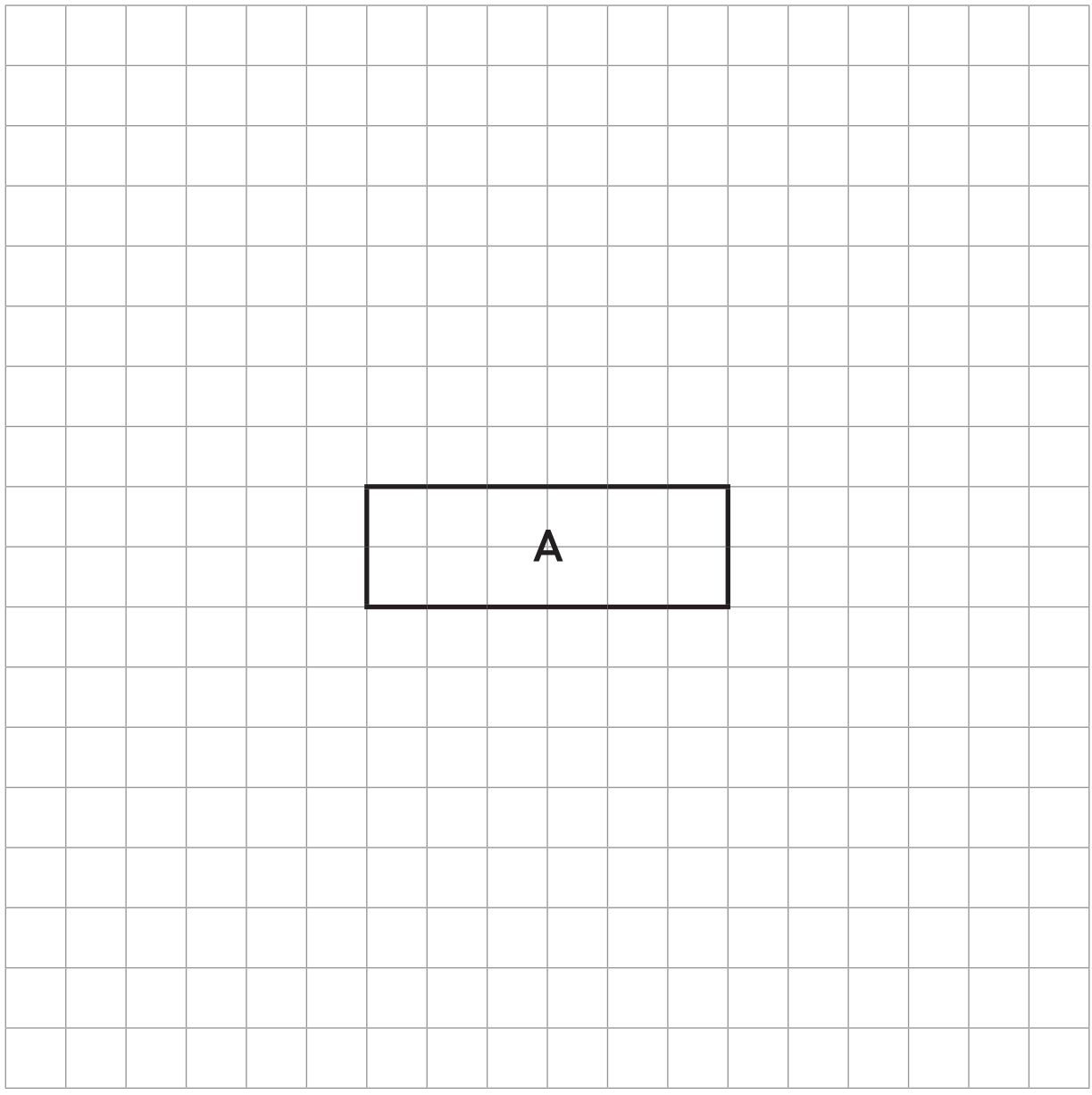
Card Sort: Rectangles

E

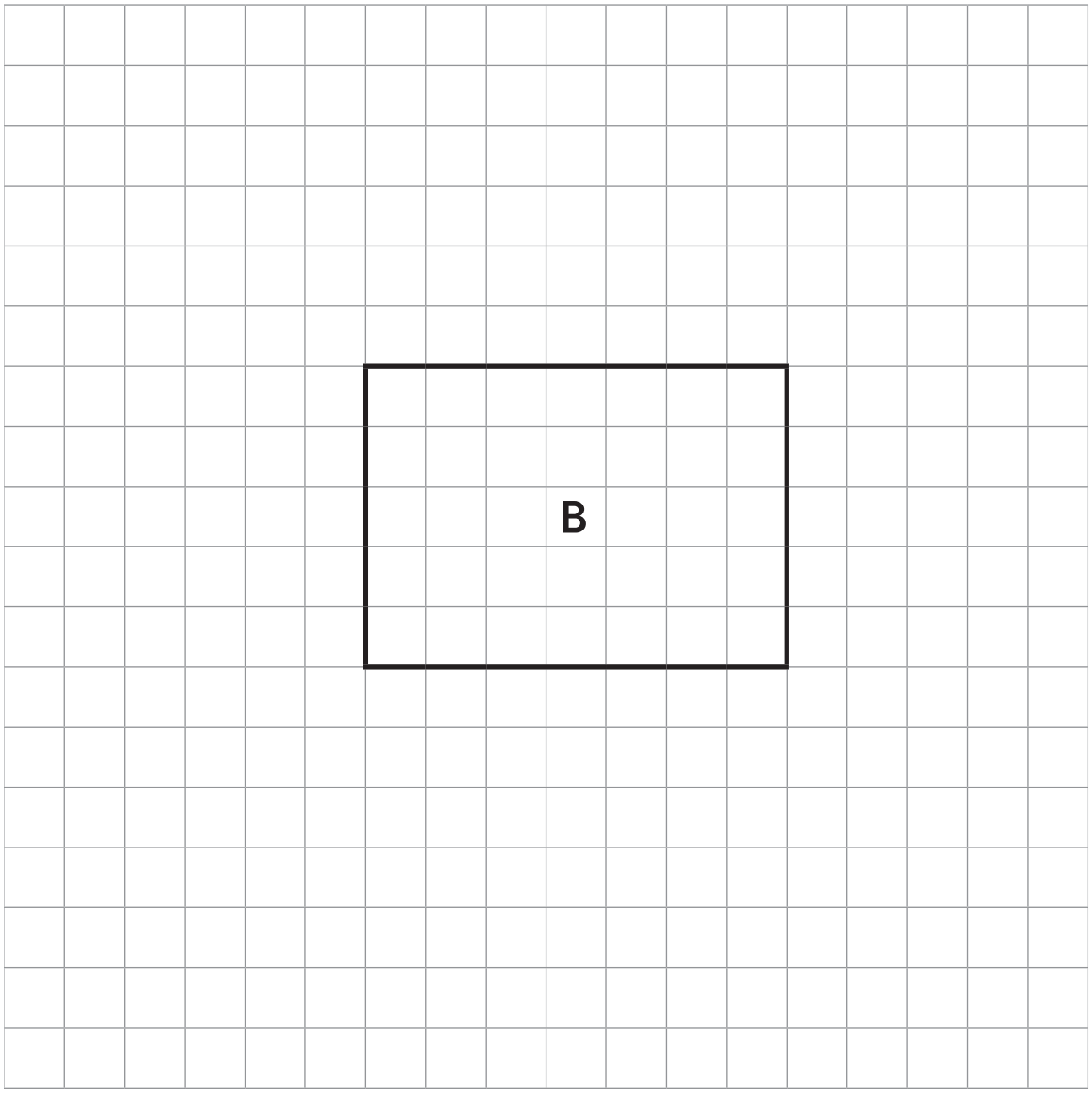
Card Sort: Rectangles

F

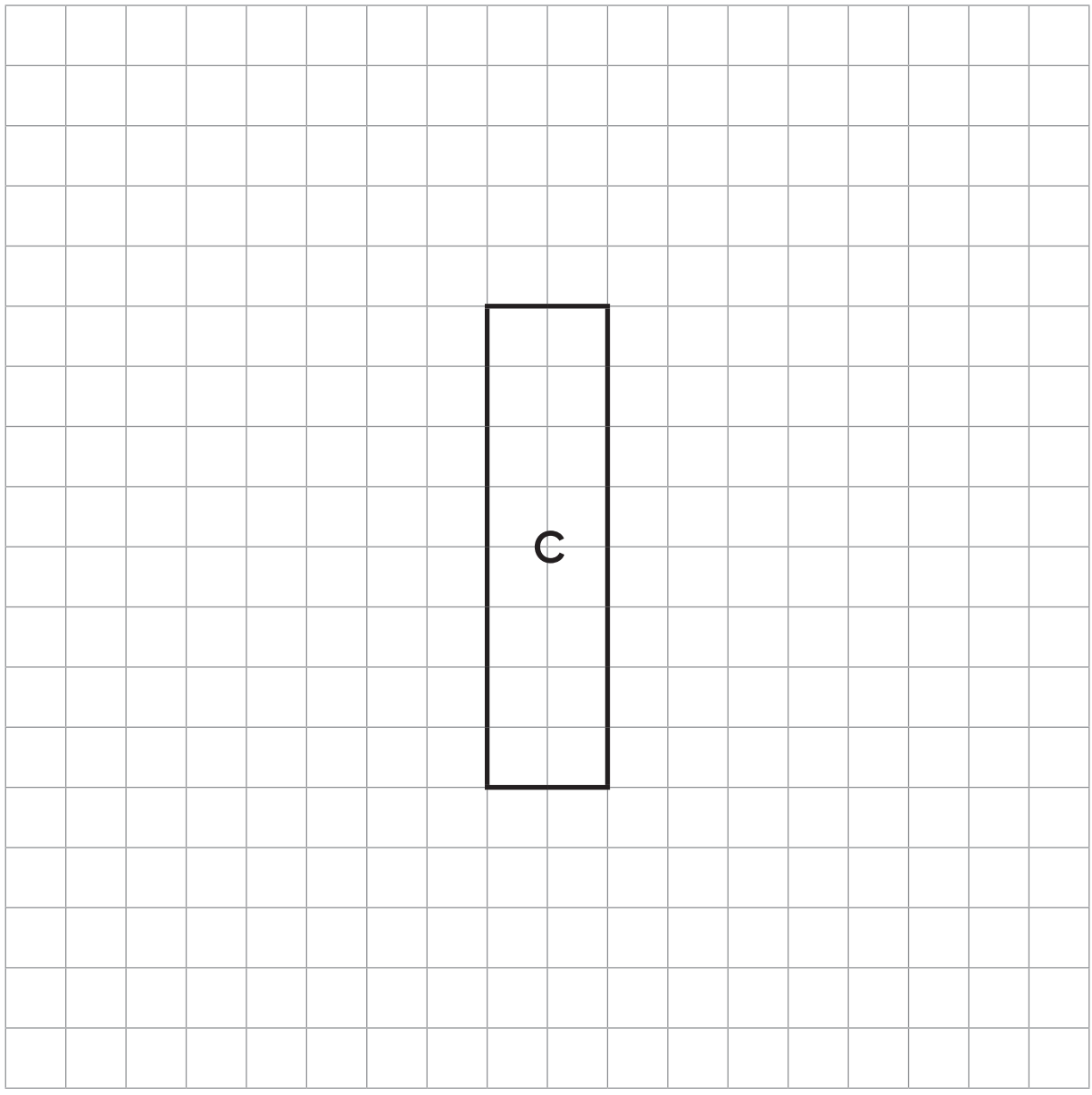
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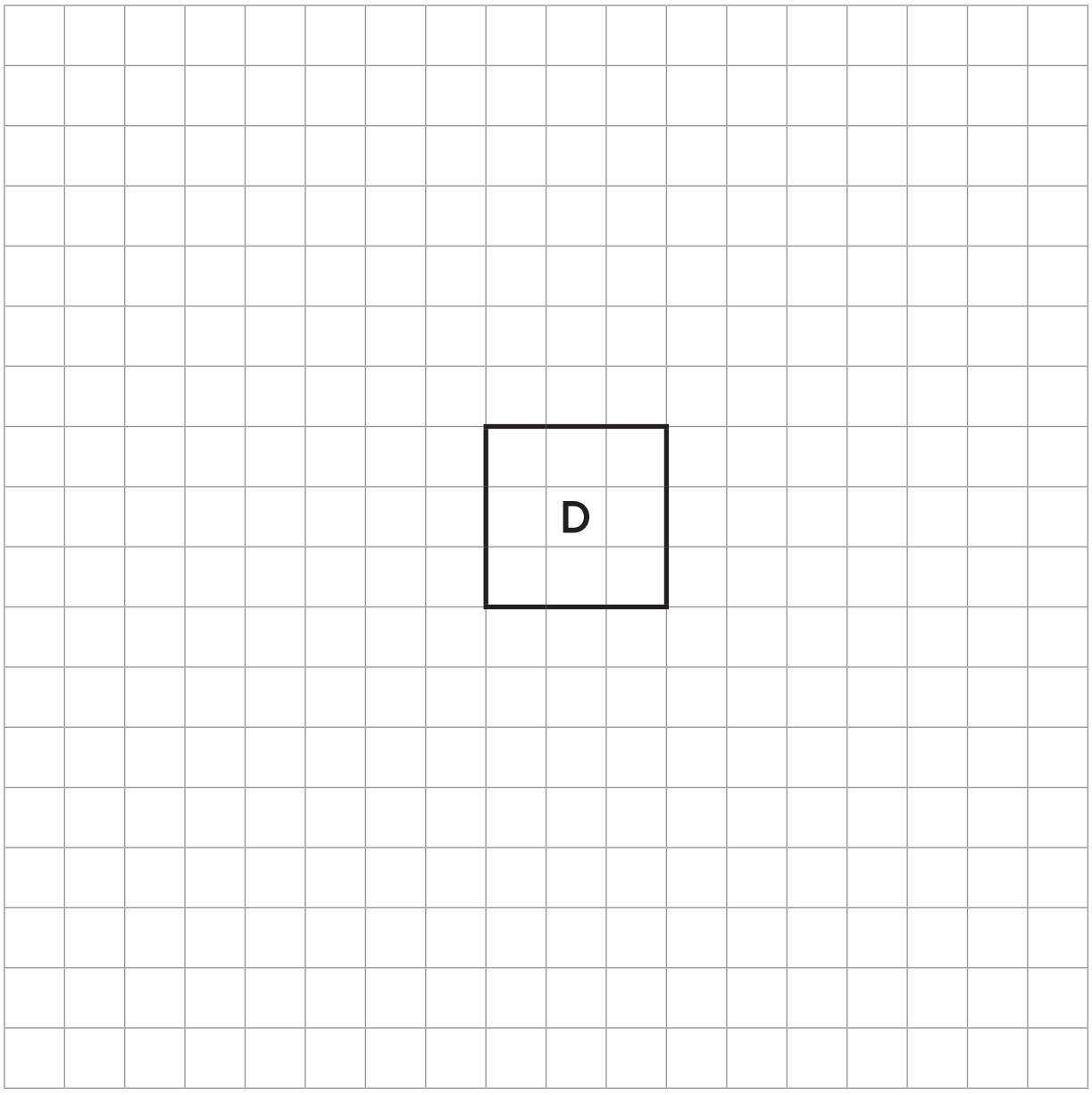
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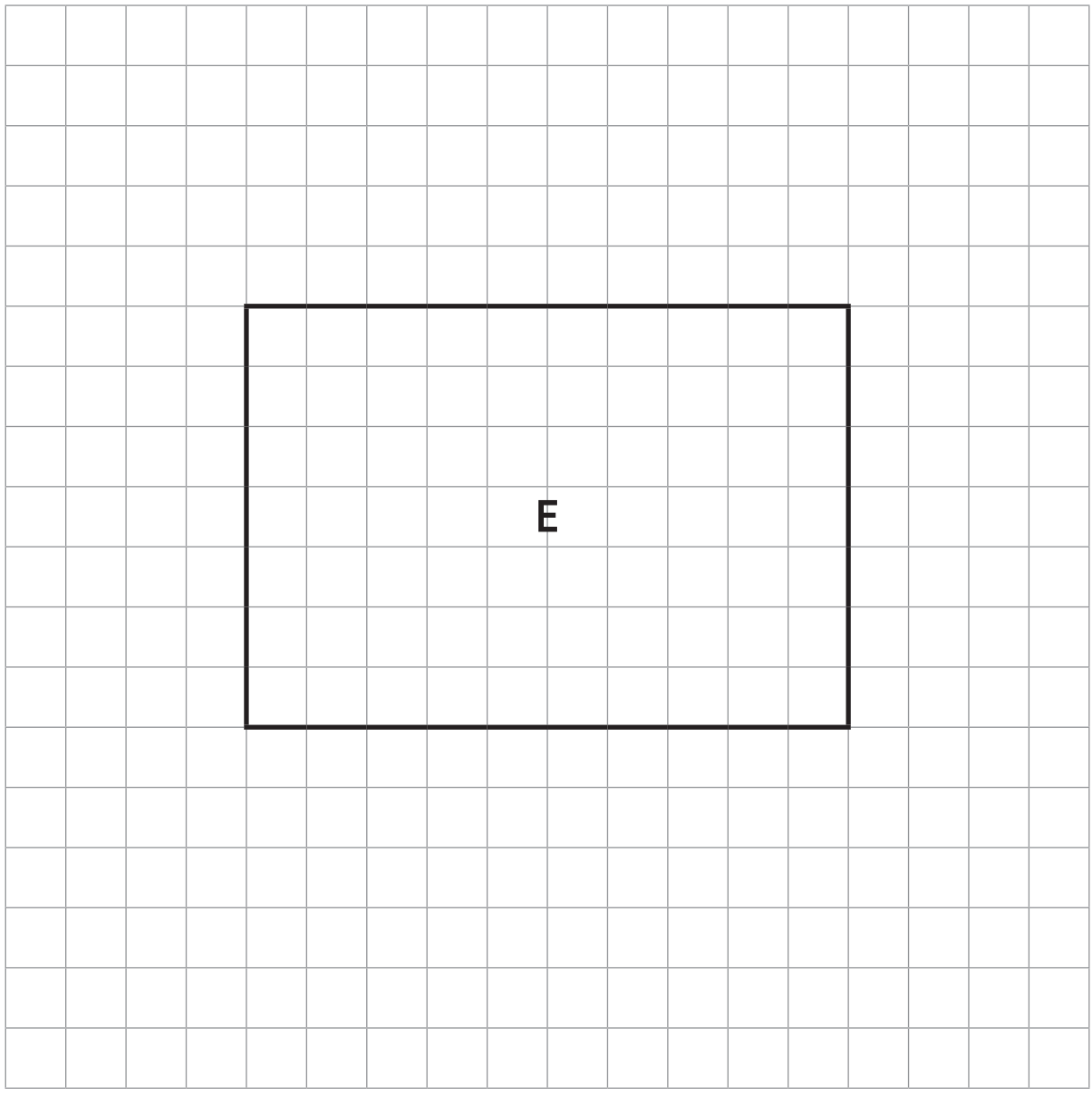
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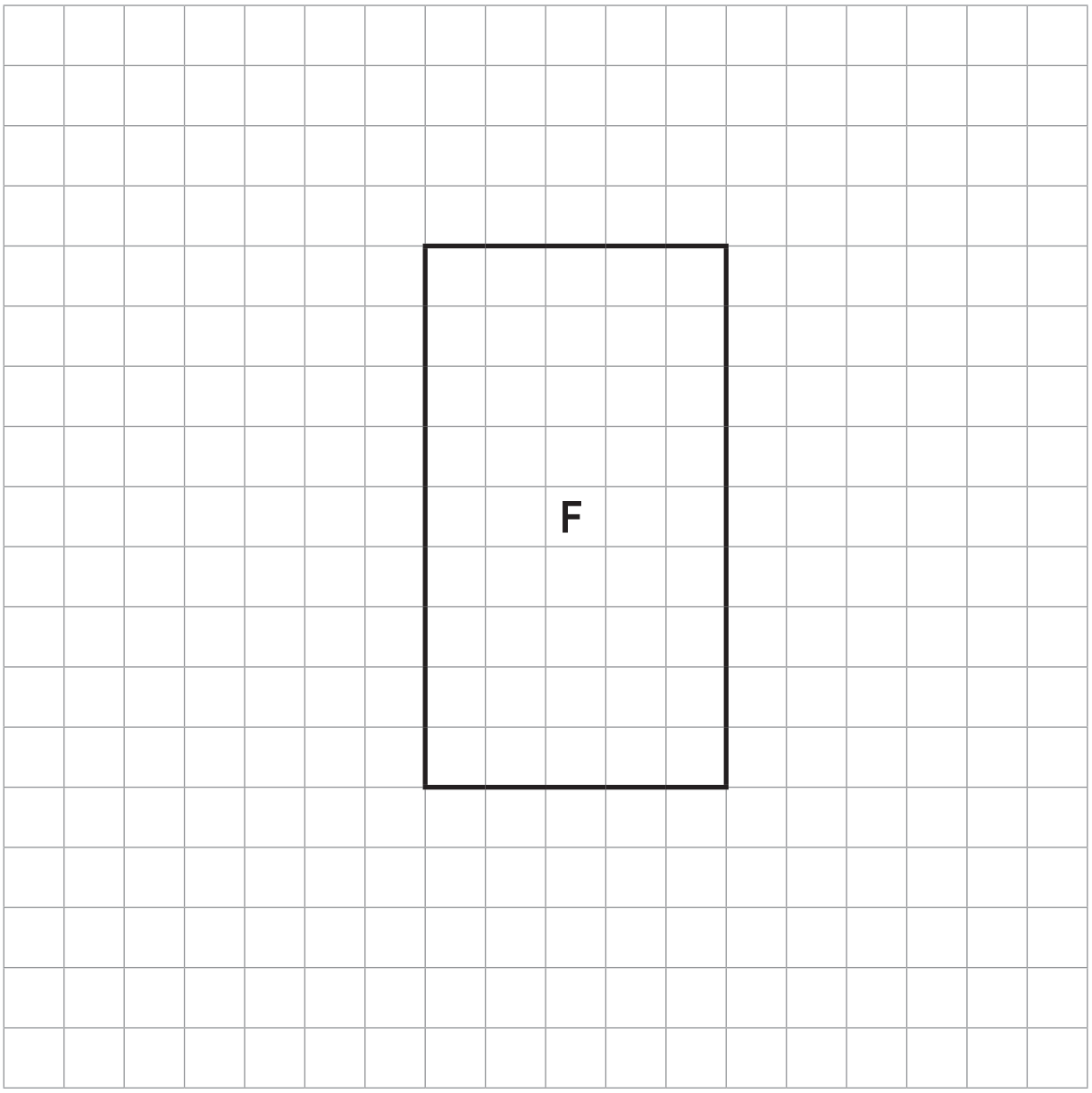
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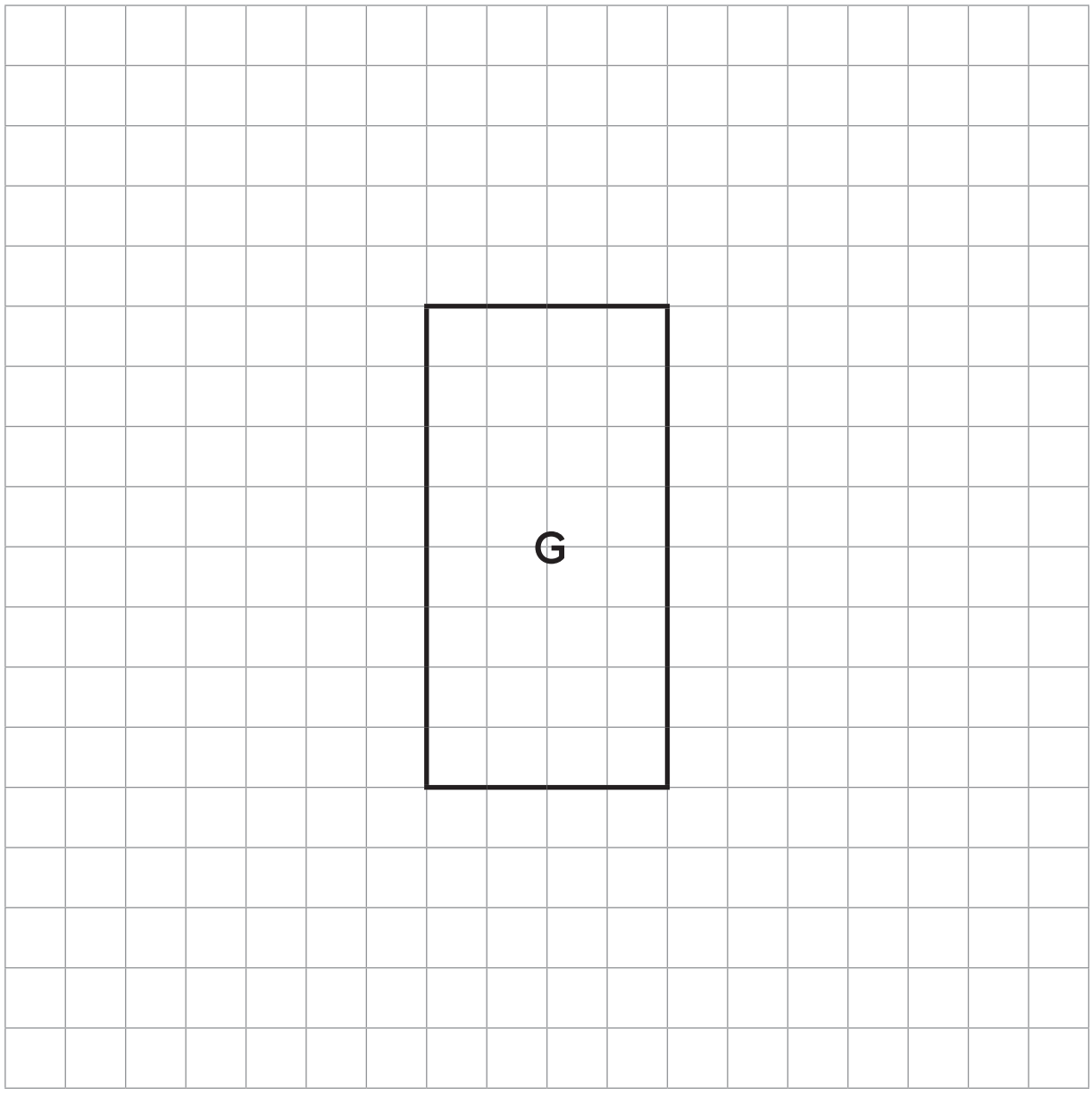
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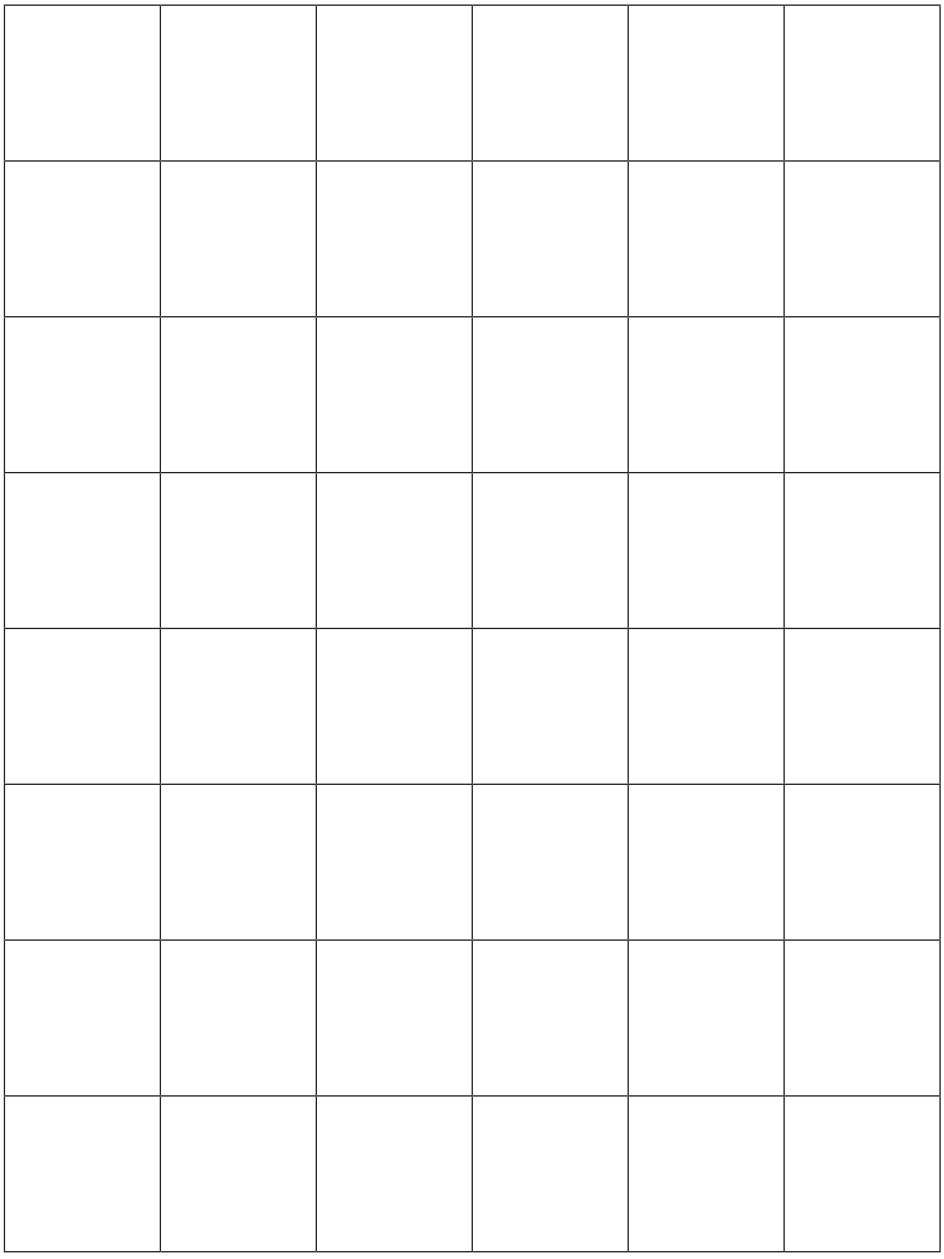


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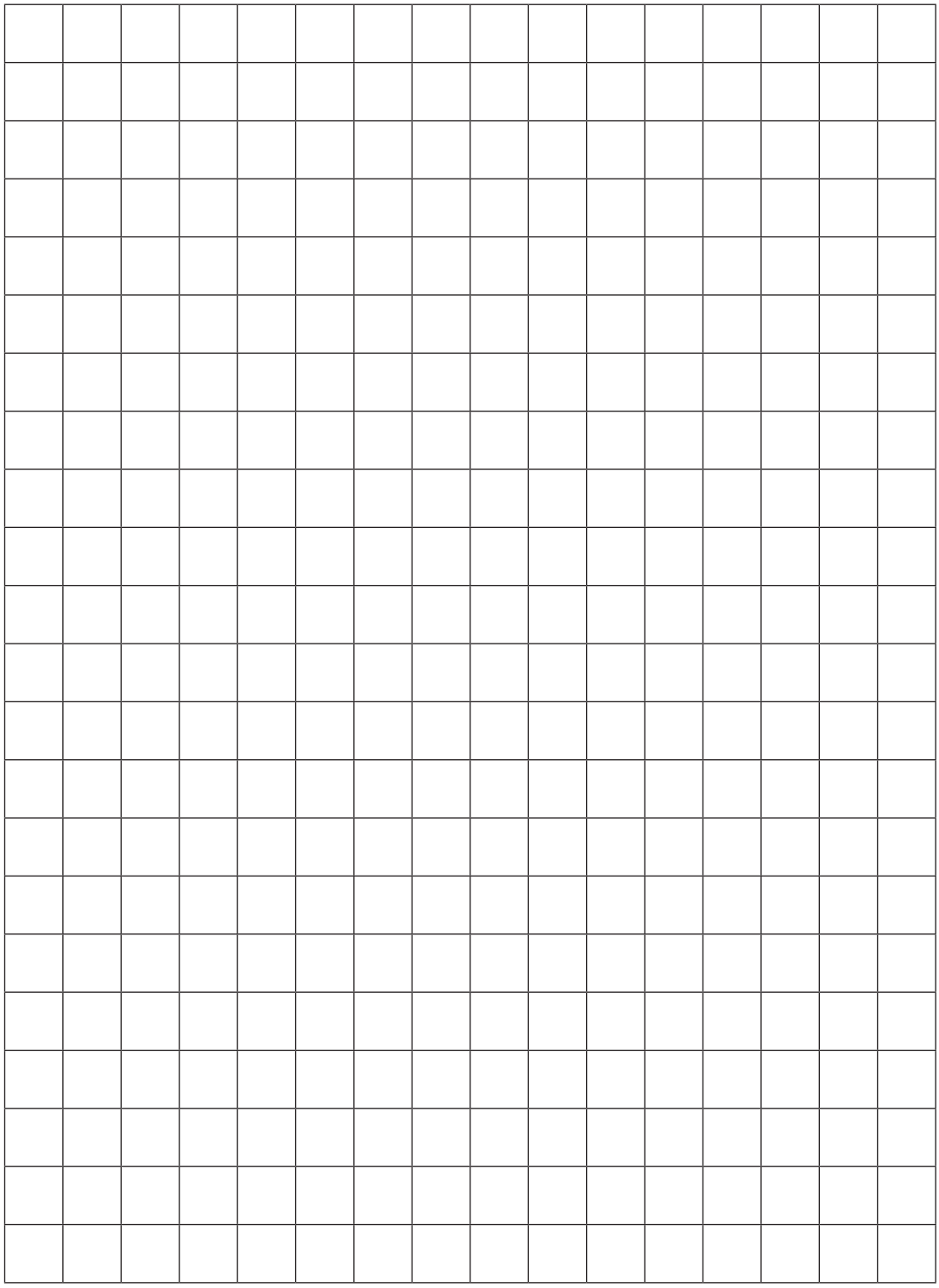
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Grid 1



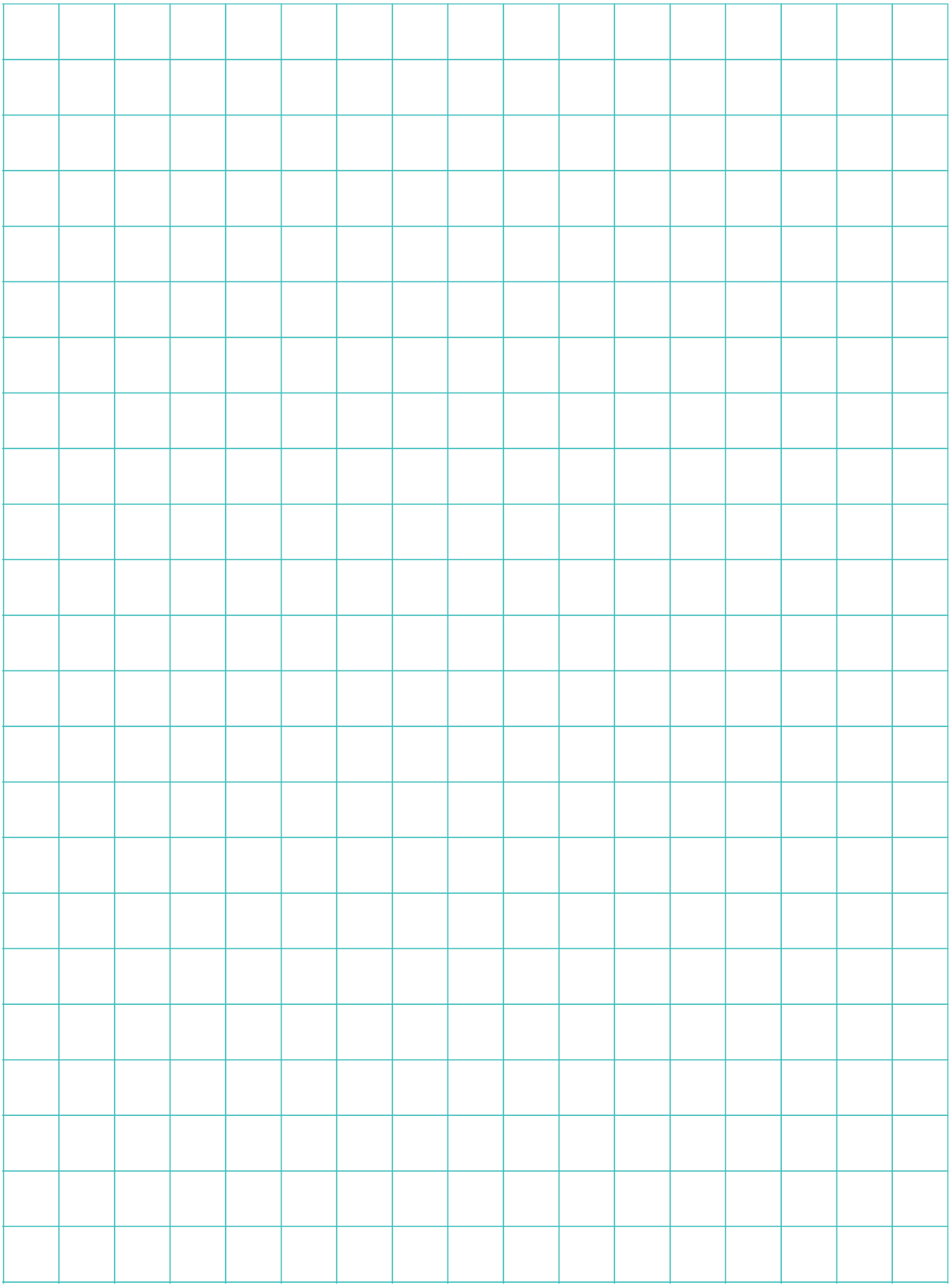
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Grid 2

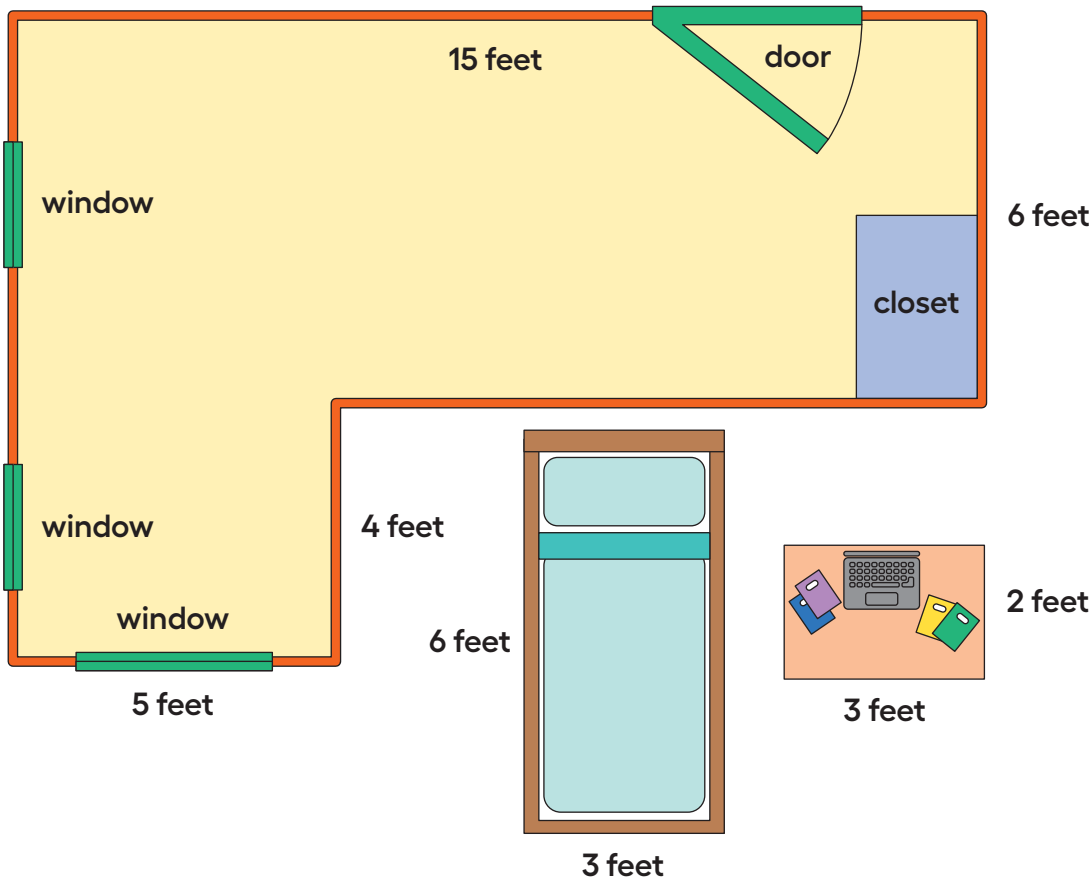


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Centimeter Grid Paper – Standard	1 of 1



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Unit Monitoring Sheet		1 of 3
Unit 2, Section A: Concepts of Area Measurement	Describe "area" as the number of unit squares that cover a plane figure, without gaps and overlaps.	Measure the area of a rectangle by counting unit squares.

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Unit Monitoring Sheet		2 of 3
Unit 2, Section B: Relate Area to Multiplication	Explain why the area of a rectangle can be determined by multiplying the side lengths.	Solve problems involving the area of a rectangle.

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Unit Monitoring Sheet	3 of 3
Unit 2, Section C: Find the Area of a Figure Composed of Rectangles	Find the areas of figures composed of rectangles.

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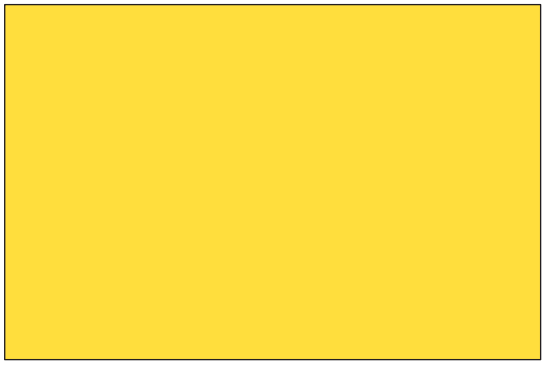
Name	Date

LESSON COOL-DOWN

1 Compare Area

Which rectangle has the greater area? How do you know?

A



B



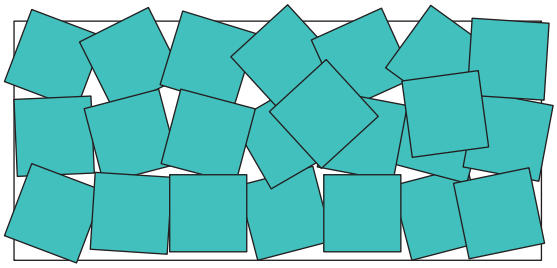
Name	Date

LESSON COOL-DOWN

3 Tile a Rectangle

Andre says this rectangle has an area of 23 square units because he covered it with 23 square tiles.

Do you agree with Andre? Explain your reasoning.



Name	Date

LESSON COOL-DOWN

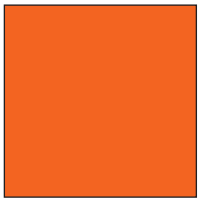
6 Which Square?

Here is a rectangle.



Here are 2 different squares you could use to tile.

A



1 square inch

B



1 square centimeter

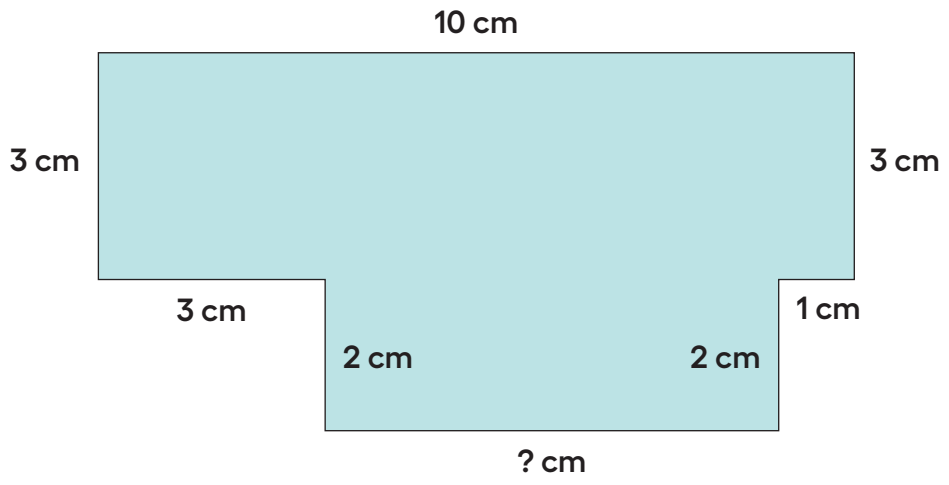
Which square would allow you to tile the rectangle with a fewer number of squares? Explain your reasoning.

Name	Date

LESSON COOL-DOWN

14 Mystery Side Area

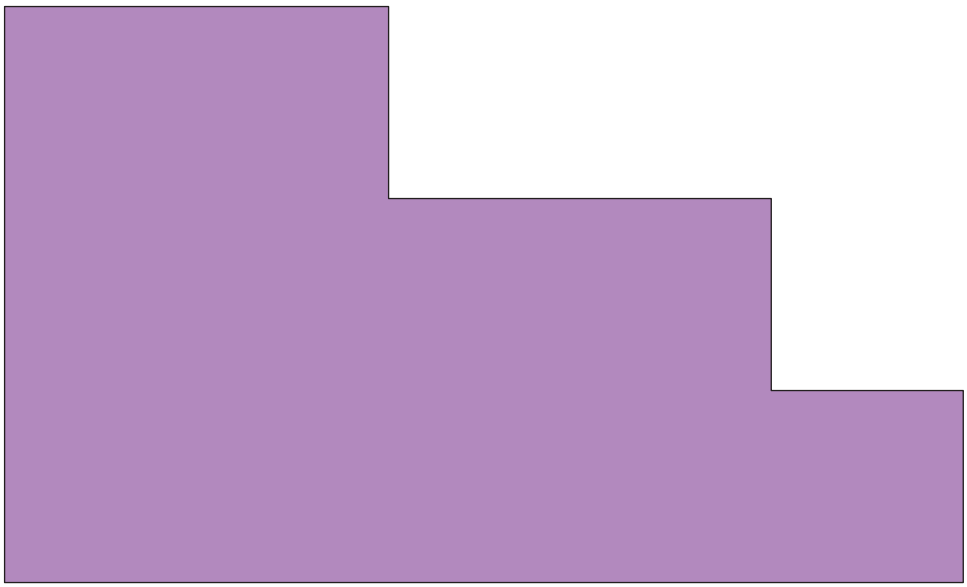
Find the area of the figure. Explain or show your reasoning.



Name	Date

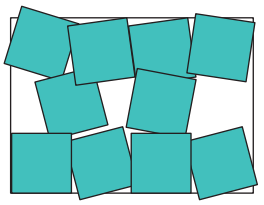
Section A Checkpoint

1. Use square tiles to find the area of this figure. Explain or show your reasoning.



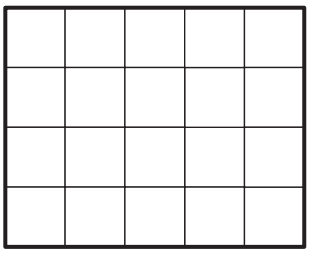
Section A Checkpoint (continued)

2. Andre places these squares on the rectangle and says the area of the rectangle is 10 square units.



Do you agree with Andre? Explain your reasoning.

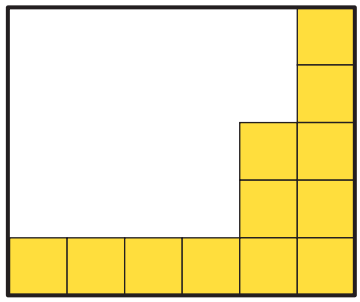
3. Find the area of the rectangle. Explain or show your reasoning.



Name	Date

Section B Checkpoint

1. Select **all** expressions that represent the area of this rectangle.



A. 6×5

B. $6 + 5 + 6 + 5$

C. $6 + 4 + 2$

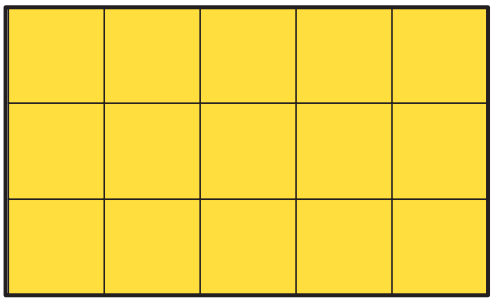
D. 5×6

E. 6×6

Section B Checkpoint (continued)

2. Priya and Han are designing a tree fort with a rectangular floor. They want at least 30 square feet of floor space. The sides all have to measure less than 8 feet.

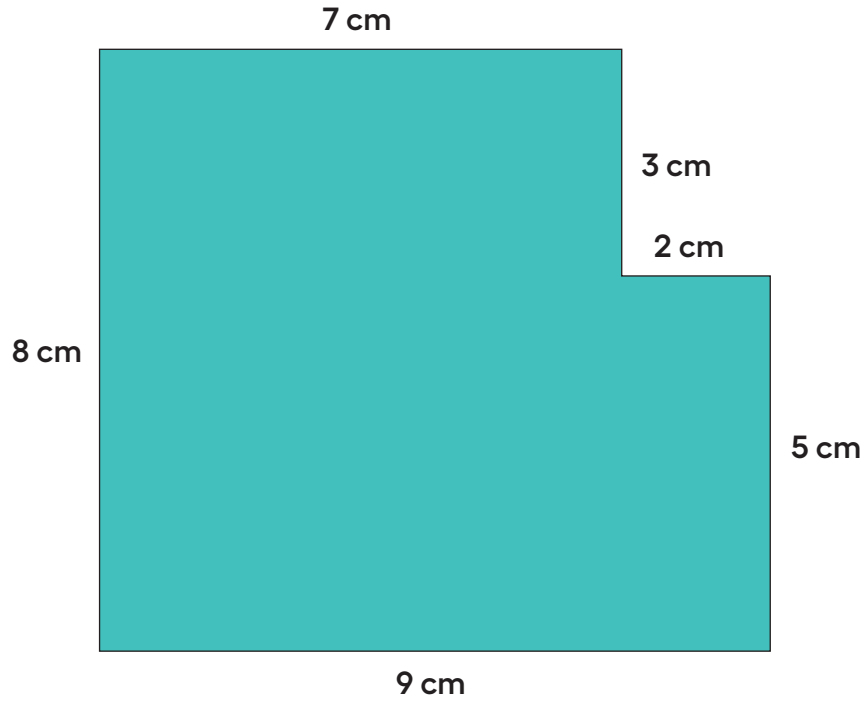
3. Explain why the area of the rectangle is 5 × 3 square units.



Name	Date

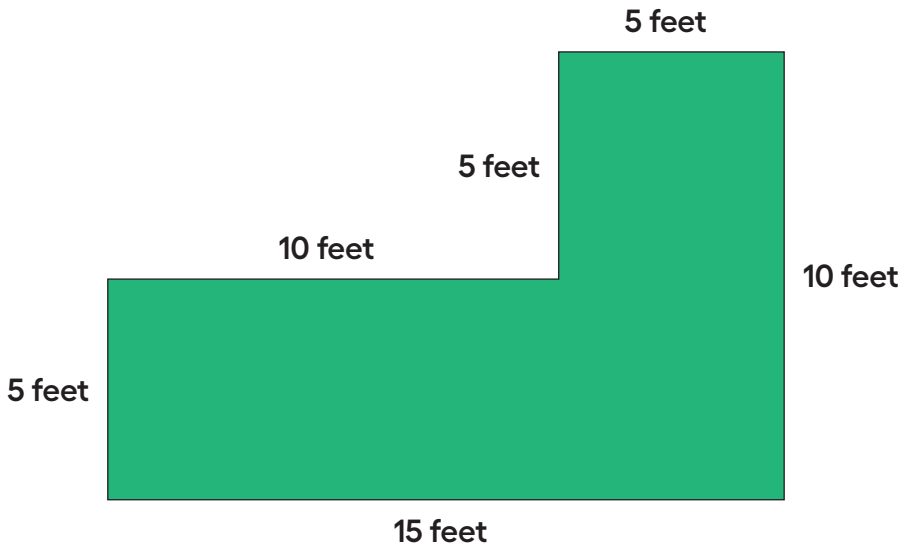
Section C Checkpoint

1. Find the area of the figure. Explain or show your reasoning.



Section C Checkpoint (continued)

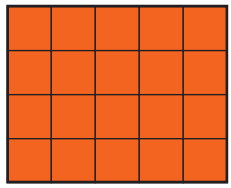
2. The figure represents a garden. What is the area of the garden? Explain or show your reasoning.

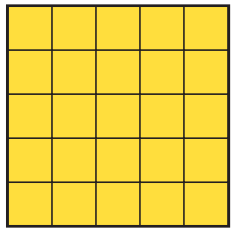


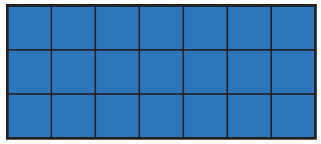
Name	Date

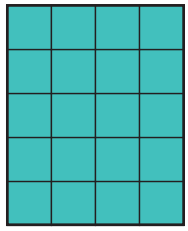
End-of-Unit Assessment

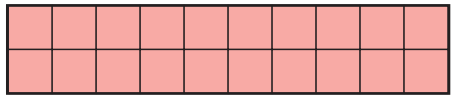
1. Select **all** rectangles that have an area of 20 square units.

A 

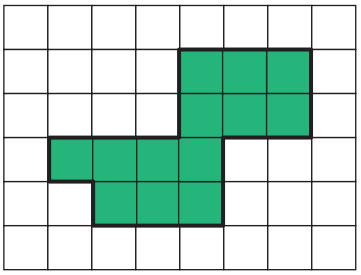
B 

C 

D 

E 

2. What is the area of this figure in square units? Explain or show your reasoning.



3. A rectangle has an area of 12 square inches. Which side lengths are possible for this rectangle? Select **all** that apply.

A. 2 inches and 6 inches

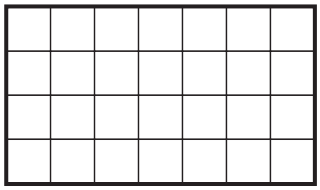
B. 5 inches and 7 inches

C. 3 inches and 4 inches

D. 2 inches and 4 inches

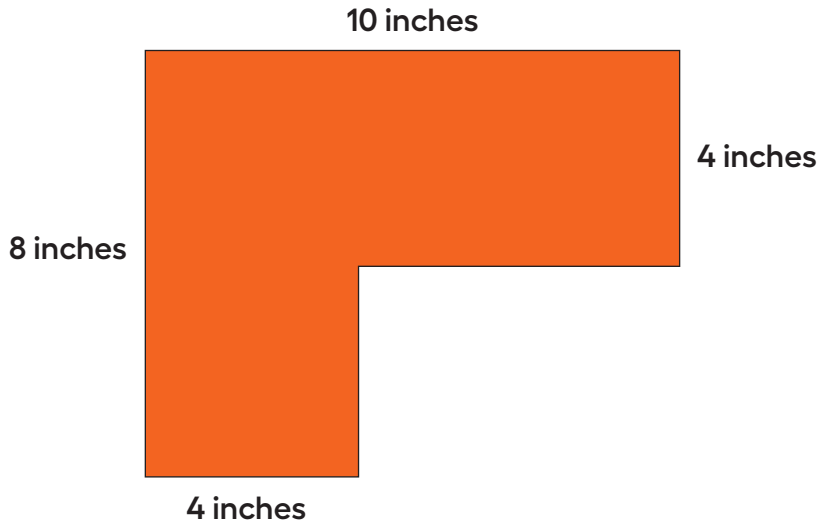
E. 1 inch and 12 inches

4. a. Explain or show how the expression 4 × 7 represents the area of this rectangle in square units.



b. Explain or show how the expression 4 × 5 + 4 × 2 also represents the area of the rectangle.

5. Find the area of the figure. Explain or show your reasoning.



6. Find the value of each expression.

a. 2 × 5 _____

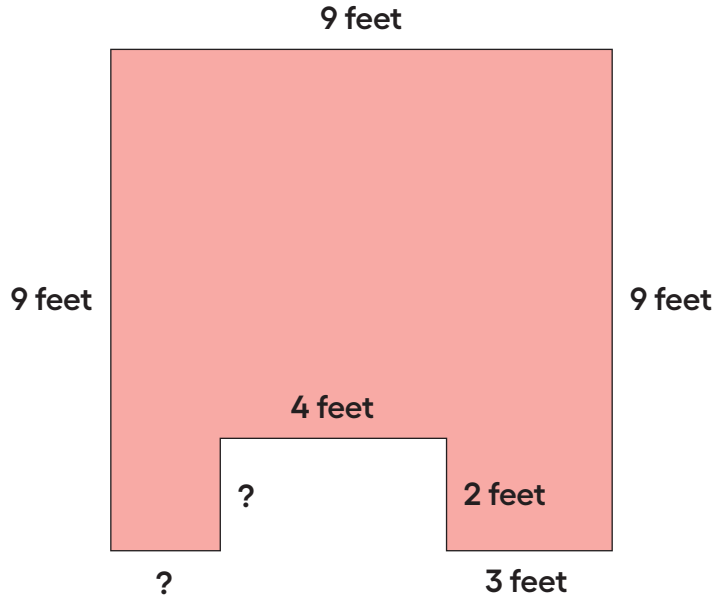
b. 3 × 4 _____

c. 4 × 6 _____

d. 5 × 8 _____

7. Lin is putting carpet squares in her bedroom. Each carpet square is 1 foot by 1 foot.

a. What are the lengths of the two unknown sides?



Explain or show your reasoning.

b. How many carpet squares does Lin need to cover the floor? Explain or show your reasoning.

Unit 2

Center Materials

center	title	students per copy	written on	requires cutting	card stock needed	color paper needed	multiple use	page number
Can You Build It? (3–5): 1	Can You Build It Stage 1 Directions	6	no	yes	no	no	yes	118
Five in a Row: Addition and Subtraction (1–3): 6	Five in a Row Addition and Subtraction Stage 6 Gameboards	2	no	no	no	no	yes	119
Five in a Row: Addition and Subtraction (1–3): 7	Five in a Row Addition and Subtraction Stage 7 Gameboard	2	no	no	no	no	yes	121
Five in a Row: Addition and Subtraction (1–3): 8	Five in a Row Addition and Subtraction Stage 8 Gameboard	2	no	no	no	no	yes	122
Capture Squares (1–5): 6	Capture Squares Stage 6 Gameboard	2	yes	no	no	no	no	123
Capture Squares (1–5): 6	Capture Squares Stage 6 Spinner	2	no	no	no	no	yes	124
Five in a Row: Multiplication (3–5): 1	Five in a Row Multiplication Stage 1 Gameboard	2	no	no	no	no	yes	125
Five in a Row: Multiplication (3–5): 2	Five in a Row Multiplication Stage 2 Gameboard	2	no	no	no	no	yes	126
Rectangle Rumble (3–5): 1	Rectangle Rumble Stage 1 Gameboard	2	yes	no	no	no	no	127

Unit 2

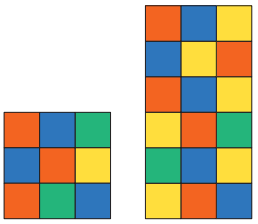
Center Materials

center	title	students per copy	written on	requires cutting	card stock needed	color paper needed	multiple use	page number
Rectangle Rumble (3–5): 1	Rectangle Rumble Stage 1 Spinner	2	no	no	no	no	yes	128
Rectangle Rumble (3–5): 2	Rectangle Rumble Stage 2 Gameboard	2	yes	no	no	no	no	129
Rectangle Rumble (3–5): 2	Rectangle Rumble Stage 2 Spinner	2	no	no	no	no	yes	130

All resources are available on your district's *ILClassroom.com* site to support printing and copying.

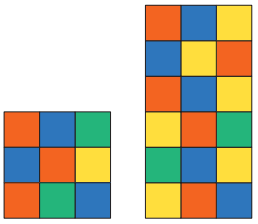
Directions:

- Partner A:
  - Use 16–24 tiles to build a rectangle. Don't let your partner see it!
  - Describe it to your partner.
- Partner B: Build the rectangle your partner describes to you.
- Place the 2 rectangles next to each other. Discuss how the rectangles are alike and different.
- Switch roles and repeat.



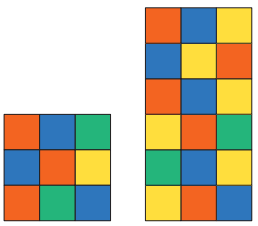
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- Switch roles and repeat.



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Directions:

- Partner A: Put a paper clip on 1 number in each gray row. Cover the sum of the 2 numbers with a counter.
- Partner B: Move 1 of the paper clips to another number in the same row. Add the numbers. Cover the sum with a counter.
- Take turns. If a partner finds a sum that is already covered, they move the same paper clip to a different number. The game ends when a partner fills the gameboard or places 5 counters in a row—across, up and down, or diagonal.

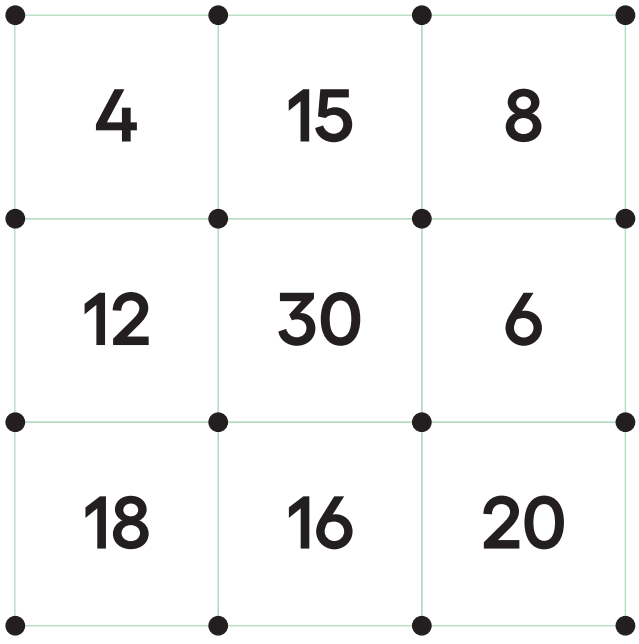
704	669	621	442	784
497	695	323	956	44
586	413	784	576	614
297	386	378	867	532
873	99	134	531	665

263	100	352	65	10
34	432	604	313	521

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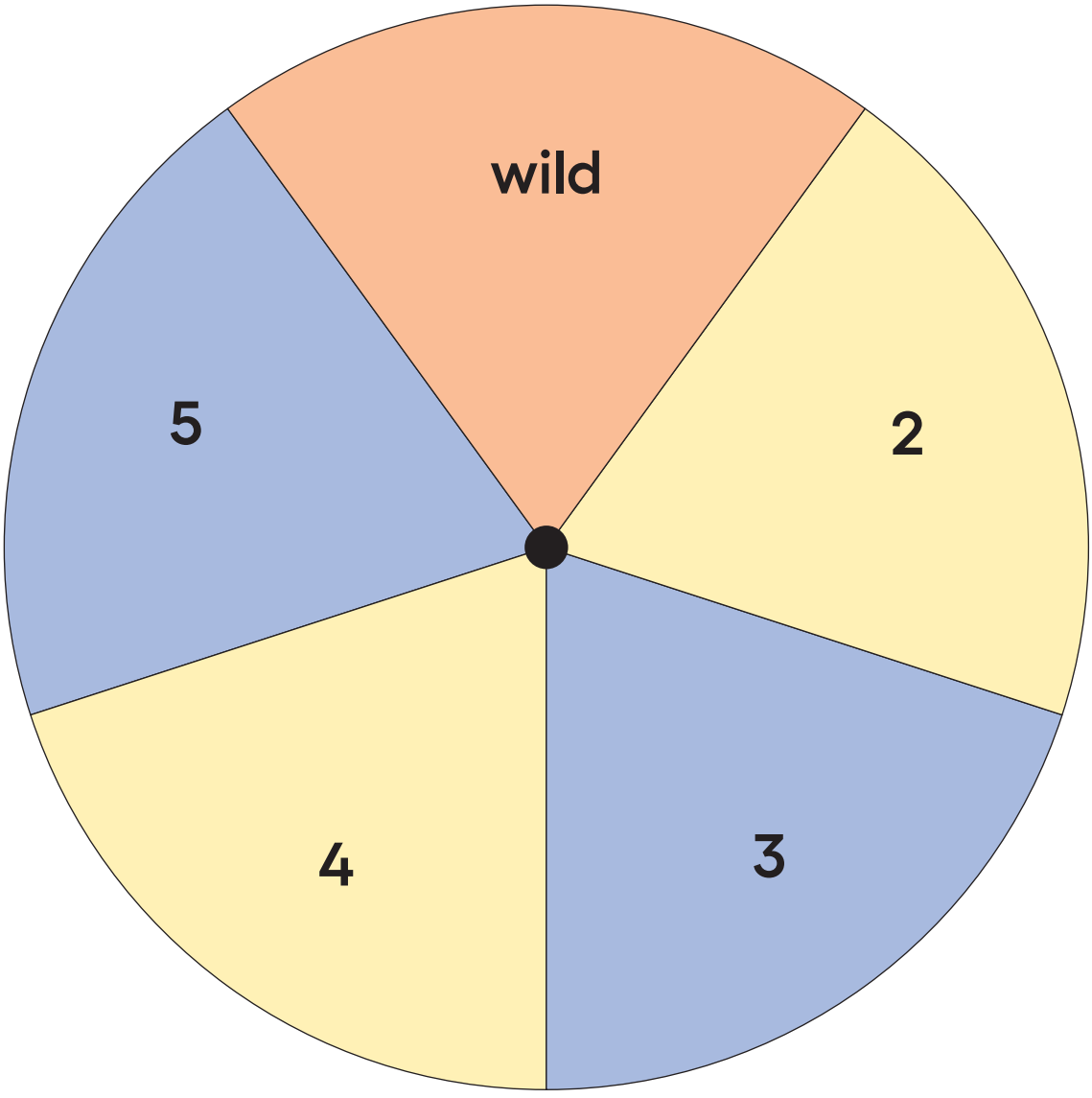
Directions:

- On your turn:
  - Roll the number cube and spin the spinner. Find the product.
  - Choose a square on the gameboard that shows that number. Draw a line connecting any 2 dots around the number.
  - If you can't draw a line, roll and spin again.
  - If you draw a line, roll and spin again.
  - If you draw a line that finishes a square around a number, shade in that box with your color.
- Take turns. The first player to shade in 3 boxes wins.



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GRADE 3 • UNIT 2 • TEACHER RESOURCE PACK • CENTER MATERIALS



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GRADE 3 • UNIT 1 • TEACHER RESOURCE PACK SAMPLER • CENTER MATERIALS 55

Directions:

- Partner A:
  - Place a paper clip on 2 numbers in the gray row.
  - Multiply the numbers.
  - Cover the product with a counter.
- Partner B:
  - Move 1 of the paper clips.
  - Multiply the numbers.
  - Cover the product with a counter.
- Take turns. If a partner finds a product that is already covered, they move the paper clip to a different number. The game ends when a partner fills the gameboard or places 5 counters in a row—across, up and down, or diagonal.

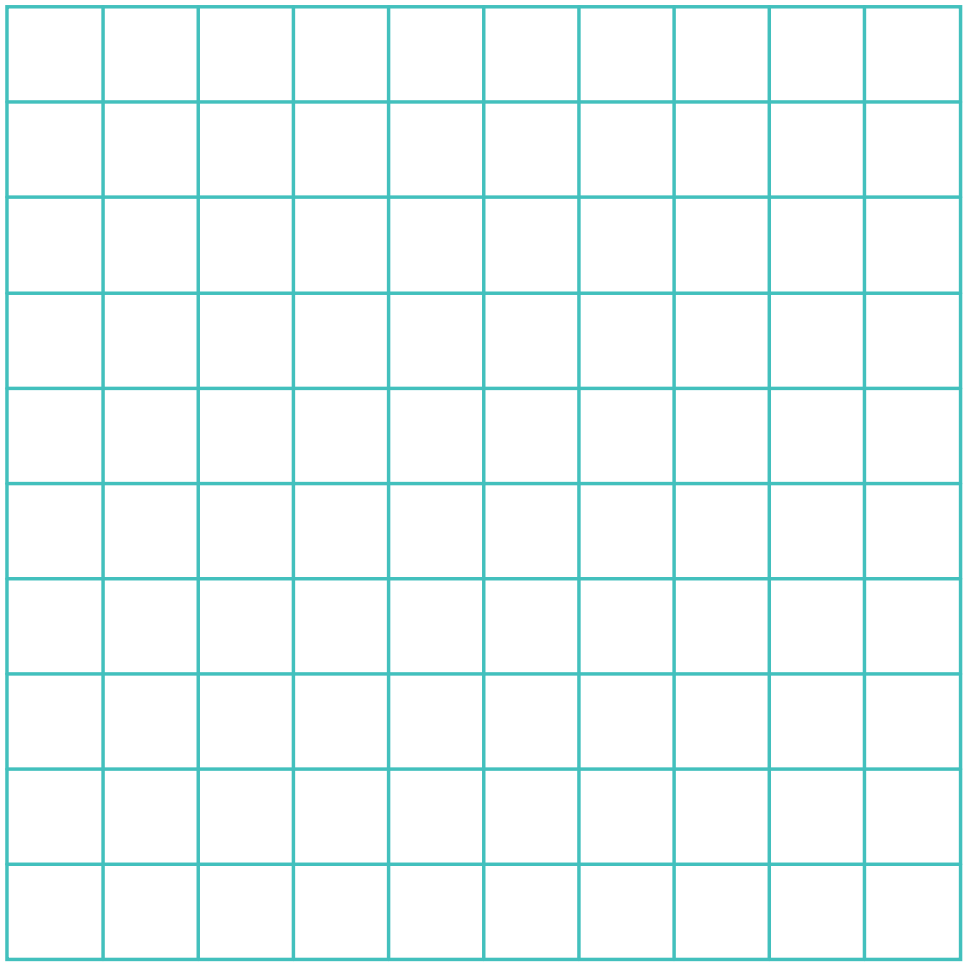
40	2	3	30	5
6	20	8	15	10
100	15	2	16	50
12	9	16	20	25
4	1	50	4	100

1	2	3	4	5	10

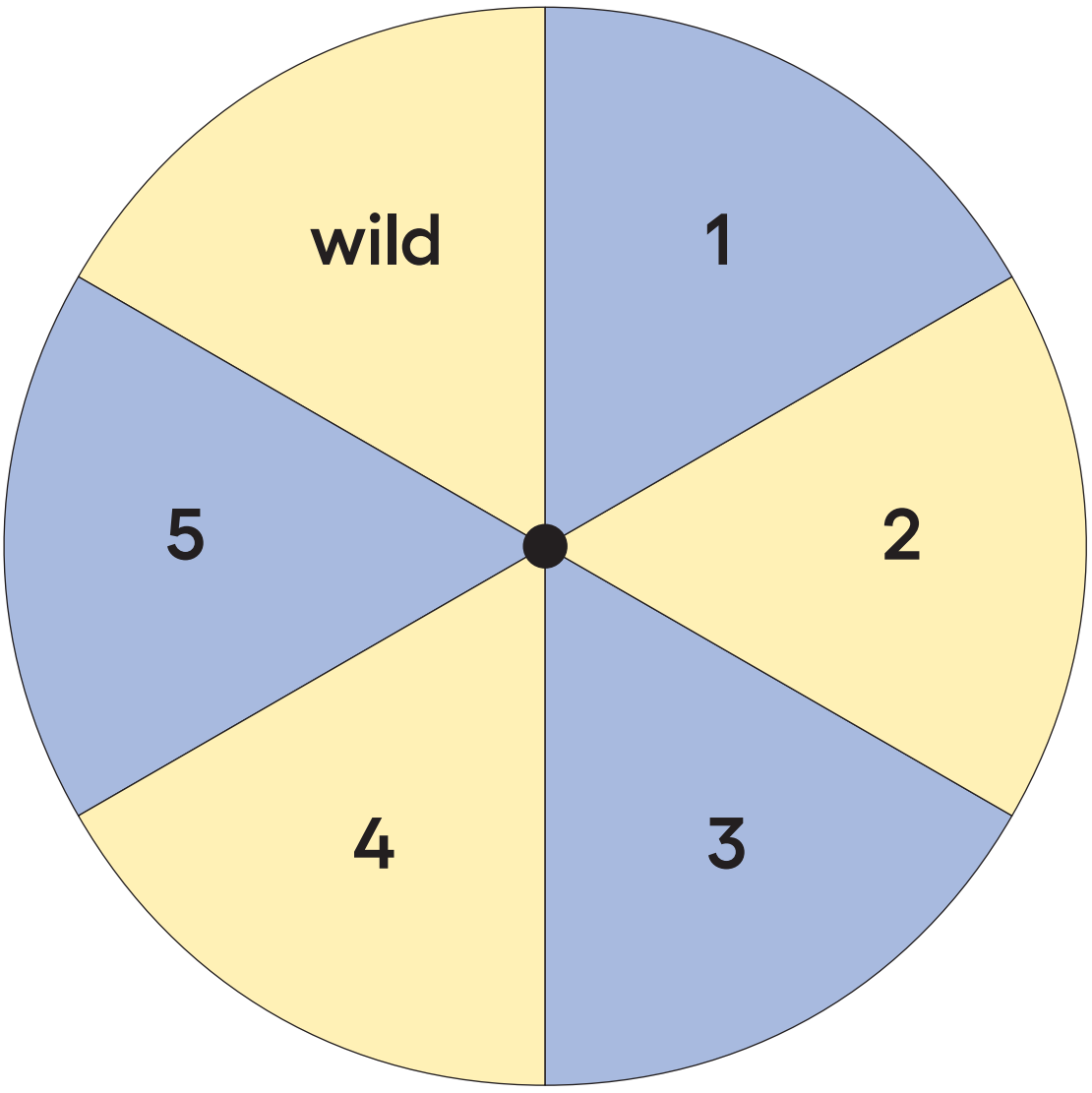
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Directions:

- Both partners choose different colors to write with.
- On your turn:
  - Spin the spinner and roll the number cube.
  - Shade in a rectangular area to represent the product of the 2 numbers.
- If your product won't fit on the gameboard, roll and spin again.
- Take turns until the grid can't be filled with anymore rectangles.
- Each partner adds up their total area, the partner with the greatest total square units wins.



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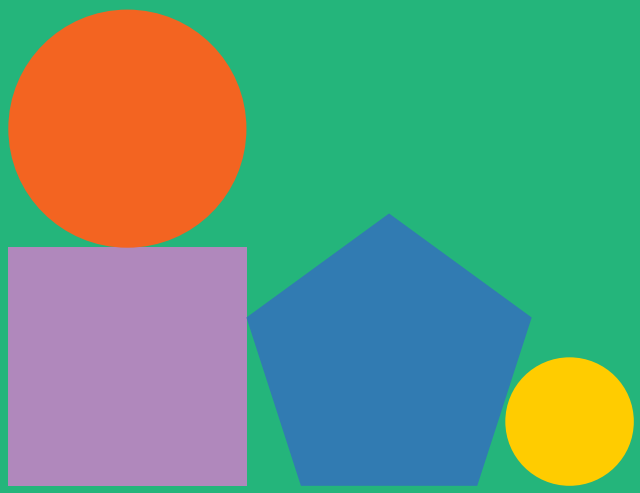
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NOTES

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