LESSON MAKER PRO

Area Builder Lab

Use rows, columns, and parts to find area.

GRADE 3 · 3.MD.C

CCSS.Math.Content.3.MD.C "Geometric measurement: understand concepts of area and relate area to multiplication and to addition."

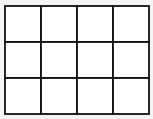
NAME _____ DATE _____

AREA AND ARRAYS

Area tells how many square units cover a flat shape without gaps or overlaps. For a rectangle, multiply the number of equal rows by the number of squares in each row. You can also split a shape into rectangles, find each area, and add the areas.

WORKED EXAMPLE

Find the area shown by the array.

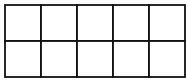


1. There are 3 rows.
2. Each row has 4 squares.
3. 3 × 4 = 12.

Answer: 12 square units

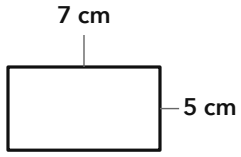
PRACTICE 6 problems

1 What is the area shown by the array?



ANSWER _____

2 The rectangle has a horizontal side of 7 cm and a perpendicular vertical side of 5 cm, as labeled. What is its area?



ANSWER _____

3 A rectangle has 6 rows of 8 equal square units. What is its area?

ANSWER _____

4 A rectangle has 7 rows of 6 square units. Write an addition equation to find its area. Then find the area.

ANSWER _____

_____

5 A craft board is made from two rectangles that do not overlap. One rectangle is 9 units by 2 units. The other rectangle is 9 units by 6 units. What is the total area?

ANSWER _____

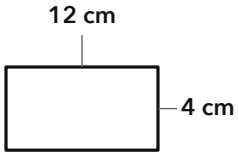
6 Rectangle A is 10 units by 5 units. Rectangle B is 7 units by 7 units. Which rectangle has the greater area, and how many more square units does it have?

ANSWER _____

_____

APPLY IT Show your work

1 The rectangular game mat has a horizontal side of 12 cm and a perpendicular vertical side of 4 cm, as labeled. What is its area?



ANSWER _____

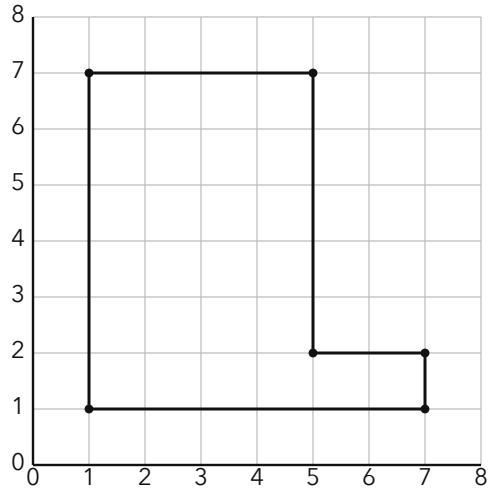
2 At a school fair, Mia makes a poster from two rectangles that do not overlap. One rectangle is 8 inches by 5 inches. The other rectangle is 3 inches by 5 inches. What is the total area of the poster?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The outlined L-shaped play area is shown on the grid. Each small grid square is 1 square unit. Find the area. Explain how you split the shape into rectangles.



WORK SPACE AND ANSWER

ANSWER KEY

Area Builder Lab

GRADE 3 · 3.MD.C

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the area shown by the array?	**10 square units**
2	The rectangle has a horizontal side of 7 cm and a perpendicular vertical side of 5 cm, as labeled. What is its area?	**35 square centimeters**
3	A rectangle has 6 rows of 8 equal square units. What is its area?	**48 square units**
4	A rectangle has 7 rows of 6 square units. Write an addition equation to find its area. Then find the area.	**6 + 6 + 6 + 6 + 6 + 6 + 6 = 42; 42 square units**
5	A craft board is made from two rectangles that do not overlap. One rectangle is 9 units by 2 units. The other rectangle is 9 units by 6 units. What is the total area?	**72 square units**
6	Rectangle A is 10 units by 5 units. Rectangle B is 7 units by 7 units. Which rectangle has the greater area, and how many more square units does it have?	**Rectangle A, 1 square unit more**

PART 2 · APPLY IT

1. **48 square centimeters** Multiply the side lengths: 12 × 4 = 48. The game mat covers 48 square centimeters.
2. **55 square inches** Find each rectangle's area: 8 × 5 = 40 and 3 × 5 = 15. Add 40 + 15 = 55 square inches.

CHALLENGE

26 square units. One way is to split it into a 6 by 1 rectangle and a 4 by 5 rectangle. 6 + 20 = 26.

Accept equivalent addition or multiplication equations with correct square units. For the challenge, accept any correct split that totals 26 square units.