LESSON MAKER PRO

Shape Area Puzzles

Split each shape to find its area.

GRADE 3 · 3.M.B.23

3.M.B.23 "Decompose rectilinear figures into smaller rectangles to find the area, using concrete materials."

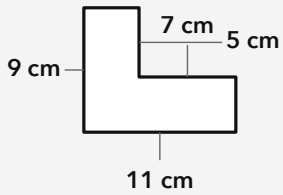
NAME _____ DATE _____

SPLIT AND ADD

Imagine covering the whole shape with square tiles. Split it into rectangles, find the area of each rectangle, and add the areas.

WORKED EXAMPLE

Find the area of this shape. Each length is in centimeters.

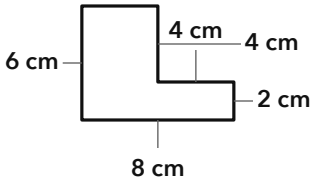


1. The bottom rectangle is 9 - 5 = 4 cm tall.
2. The top rectangle is 11 - 7 = 4 cm wide.
3. Their areas are 11 x 4 = 44 and 4 x 5 = 20 square centimeters.
4. Add the areas: 44 + 20 = 64 square centimeters.

Answer: 64 square centimeters

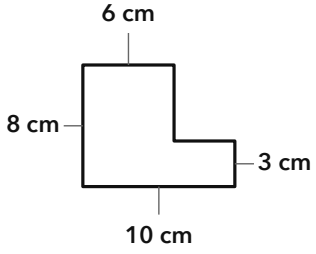
PRACTICE 6 problems

1 Split this shape into rectangles. What is its area?



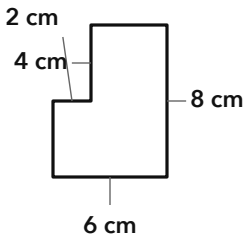
ANSWER _____

2 Split this shape into rectangles. What is its area?



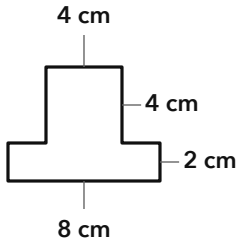
ANSWER _____

3 Split this shape into rectangles. What is its area?



ANSWER _____

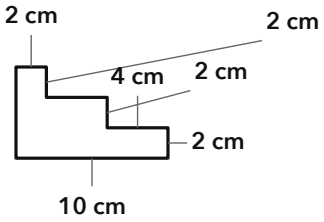
4 Split this shape into a bottom rectangle and a rectangle above it. Find their areas and the total area.



ANSWER _____

_____

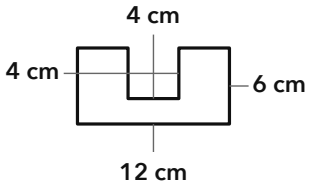
5 Split this shape into three horizontal rectangles. Find each area and the total area.



ANSWER _____

_____

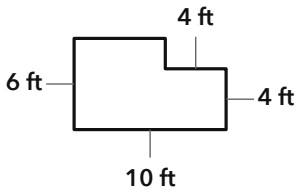
6 Split this shape into rectangles. What is its area?



ANSWER _____

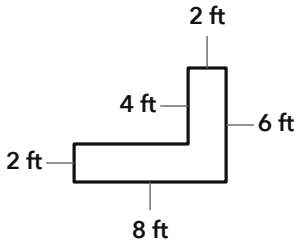
APPLY IT Show your work

1 A class paints the L-shaped play space shown. How many square feet will they paint?



ANSWER _____

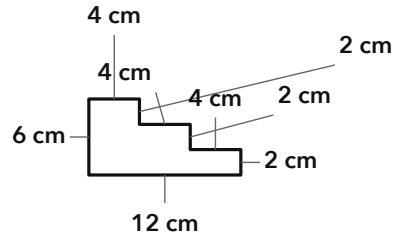
2 Mia covers the L-shaped clubhouse floor shown with foam tiles. Each tile covers 1 square foot. How many tiles does she need?



ANSWER _____

CHALLENGE One step up

Find this shape's area in two ways. Write one number sentence for horizontal rectangles and one for vertical rectangles.



WORK SPACE AND ANSWER

ANSWER KEY

Shape Area Puzzles

GRADE 3 · 3.M.B.23

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Split this shape into rectangles. What is its area?	**32 square centimeters**
2	Split this shape into rectangles. What is its area?	**60 square centimeters**
3	Split this shape into rectangles. What is its area?	**40 square centimeters**
4	Split this shape into a bottom rectangle and a rectangle above it. Find their areas and the total area.	**Bottom: 16 square centimeters; above: 16 square centimeters; total: 32 square centimeters**
5	Split this shape into three horizontal rectangles. Find each area and the total area.	**Bottom: 20; middle: 12; top: 4; total: 36 square centimeters**
6	Split this shape into rectangles. What is its area?	**56 square centimeters**

PART 2 · APPLY IT

1. **52 square feet** The bottom rectangle is 10 x 4 = 40 square feet. The top rectangle is 6 x 2 = 12 square feet, so the total is 52 square feet.
2. **24 tiles** Split the floor into an 8 x 2 rectangle and a 2 x 4 rectangle. Their areas add to 16 + 8 = 24 square feet, so Mia needs 24 tiles.

CHALLENGE

Horizontal: 12 x 2 + 8 x 2 + 4 x 2 = 48. Vertical: 4 x 6 + 4 x 4 + 4 x 2 = 48 square centimeters.

Accept any split into rectangles that covers the whole shape without overlap. For the challenge, each number sentence must match its stated direction and total 48 square centimeters.