LESSON MAKER PRO

Rectangle Detectives

Find area, perimeter, and missing side lengths.

GRADE 4 · MA.4.GR.2.1

MA.4.GR.2.1 "Solve perimeter and area mathematical and real-world problems, including problems with unknown sides, for rectangles with whole-number side lengths."

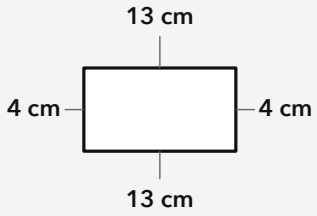
NAME _____ DATE _____

AREA AND PERIMETER

Area tells how much space is inside a rectangle. Multiply length by width for area, and add all four side lengths for perimeter.

WORKED EXAMPLE

Look at the rectangle. Find its area and perimeter.

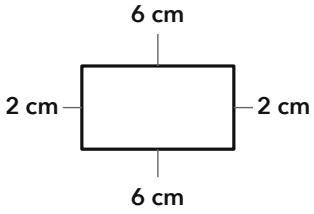


1. Area: 13 x 4 = 52 square cm.
2. Perimeter: 13 + 4 + 13 + 4 = 34 cm.
3. Use square units for area and units for perimeter.

Answer: Area = 52 square cm; perimeter = 34 cm

PRACTICE 4 problems

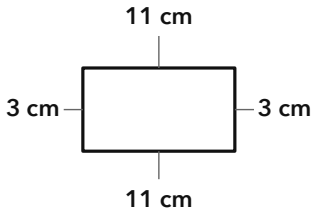
1 Look at the rectangle. Find its area and perimeter.



ANSWER _____

_____

2 Look at the rectangle. What is its perimeter?



ANSWER _____

3 A rectangle has an area of 42 square centimeters and a length of 7 centimeters. What is its width?

ANSWER _____

4 A rectangle has a perimeter of 36 centimeters. Its width is 7 centimeters. What is its length?

ANSWER _____

APPLY IT Show your work

1 A game poster is 14 inches long and 9 inches wide. How much paper covers its front? How much ribbon goes around its edge?

WORK SPACE

ANSWER _____

2 An 80-square-foot rectangular hamster play pen is 10 feet long. What is its width? What is its perimeter?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A rectangular art board has a perimeter of 50 inches. Its length is 5 inches greater than its width. Find its length, width, and area. Show how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Rectangle Detectives

GRADE 4 · MA.4.GR.2.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Look at the rectangle. Find its area and perimeter.	**Area = 12 square cm; perimeter = 16 cm**
2	Look at the rectangle. What is its perimeter?	**28 cm**
3	A rectangle has an area of 42 square centimeters and a length of 7 centimeters. What is its width?	**6 cm**
4	A rectangle has a perimeter of 36 centimeters. Its width is 7 centimeters. What is its length?	**11 cm**

PART 2 · APPLY IT

1. **Area = 126 square inches; perimeter = 46 inches** Multiply 14 by 9 for the area. Add 14, 9, 14, and 9 for the perimeter.
2. **Width = 8 feet; perimeter = 36 feet** Divide 80 by 10 to find the width. Then add all four side lengths.

CHALLENGE

Width = 10 inches; length = 15 inches; area = 150 square inches. The length and width must add to 25, and 15 is 5 more than 10.

Accept equivalent unit wording, such as sq. cm or cm². For the challenge, accept any clear reasoning that finds side lengths of 10 and 15.