LESSON MAKER PRO

Rectangle Detectives

Find area and perimeter with whole-number side lengths.

GRADE 4 · TEKS 4.5.D

4.5.D "solve problems related to perimeter and area of rectangles where dimensions are whole numbers."

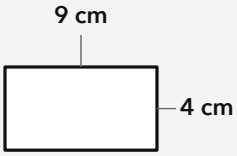
NAME _____ DATE _____

AREA OR PERIMETER?

To find the area of a rectangle, multiply its length by its width. To find the perimeter, add the lengths of all four sides, and use square units only for area.

WORKED EXAMPLE

Look at the rectangle. Find its area and perimeter.

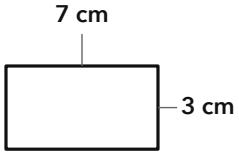


1. The length is 9 cm and the width is 4 cm.
2. Area = 9 × 4 = 36 square cm.
3. Perimeter = 9 + 4 + 9 + 4 = 26 cm.

Answer: Area: 36 square cm; Perimeter: 26 cm

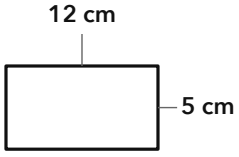
PRACTICE 6 problems

1 Look at the rectangle. Find its perimeter.



ANSWER _____

2 Look at the rectangle. Find its area.



ANSWER _____

3 A rectangle is 6 cm long and 8 cm wide. Find its area.

ANSWER _____

4 A rectangle is 13 cm long and 2 cm wide. Find its perimeter.

ANSWER _____

5 A rectangle has an area of 56 square cm. Its width is 7 cm. Find its length.

ANSWER _____

6 A rectangle is 17 cm long and 3 cm wide. Find its area and perimeter.

ANSWER _____

_____

APPLY IT Show your work

1 Maya is making a rectangular poster for her game club. The poster is 16 inches long and 10 inches wide. How many inches of border does she need, and what is the area of the poster?

WORK SPACE

ANSWER _____

2 A trading-card display board is shaped like a rectangle. It is 21 cm long and 8 cm wide. What is the area of the board?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A rectangular game board has a perimeter of 34 inches. Its width is 7 inches. What is its length and area? Explain how you know.

WORK SPACE AND ANSWER

ANSWER KEY # Rectangle Detectives

GRADE 4 · TEKS 4.5.D

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Look at the rectangle. Find its perimeter.	**20 cm**
2	Look at the rectangle. Find its area.	**60 square cm**
3	A rectangle is 6 cm long and 8 cm wide. Find its area.	**48 square cm**
4	A rectangle is 13 cm long and 2 cm wide. Find its perimeter.	**30 cm**
5	A rectangle has an area of 56 square cm. Its width is 7 cm. Find its length.	**8 cm**
6	A rectangle is 17 cm long and 3 cm wide. Find its area and perimeter.	**Area: 51 square cm; Perimeter: 40 cm**

PART 2 · APPLY IT

1. **Border: 52 inches; Area: 160 square inches** Find the border by adding all four sides: 16 + 10 + 16 + 10 = 52. Multiply 16 × 10 to find the area.
2. **168 square cm** Multiply the length by the width: 21 × 8 = 168.

CHALLENGE

Length: 10 inches; Area: 70 square inches. The two widths total 14 inches, so the two lengths total 20 inches. Each length is 10 inches, and 10 × 7 = 70.

Accept square units written as square cm, cm², square inches, or in². For the challenge, accept any clear explanation that finds the two missing equal sides and then multiplies length by width.