LESSON MAKER PRO

Rectangle Measure Quest

Use area and perimeter to solve rectangle problems.

GRADE 4 · NY-4.MD.3

NY-4.MD.3 "Apply the area and perimeter formulas for rectangles in real world and mathematical problems."

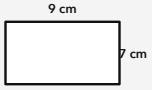
NAME _____ DATE _____

AREA AND PERIMETER

For a rectangle, find area by multiplying length by width. Find perimeter by adding all four sides, or by adding the length and width and multiplying by 2.

WORKED EXAMPLE

Use the rectangle shown. Find its area and perimeter.

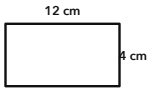


1. Area = length × width.
2. Area = 9 × 7 = 63 square cm.
3. Perimeter = 2 × (9 + 7) = 32 cm.

Answer: Area = 63 square cm; perimeter = 32 cm.

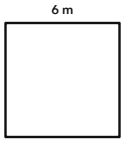
PRACTICE 6 problems

1 Use the rectangle shown. Find its area.



ANSWER _____

2 Use the square shown. Find its perimeter and area.



ANSWER _____

3 A rectangular dog run is 15 m long and 8 m wide. How many meters of fencing are needed to go around it?

ANSWER _____

4 A rectangle is 11 cm long and 5 cm wide. What is its area?

ANSWER _____

5 A rectangular art mat is 14 in long and 3 in wide. Find its perimeter and area.

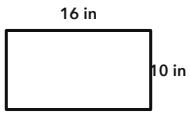
ANSWER _____

6 A rectangle has a perimeter of 36 cm and a length of 10 cm. Find its width and area.

ANSWER _____

APPLY IT Show your work

1 Avery is making a rectangular cover for a comic binder. Use the rectangle shown. How many square inches of paper does Avery need to cover the front? How many inches of tape are needed to go around the edge?



ANSWER _____

2 The skate club marks off a rectangular practice space that is 20 ft long and 12 ft wide. What is the area of the space? What is the distance around the space?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A 12 cm by 10 cm rectangle has a 4 cm by 3 cm rectangle cut from one corner. What are the area and perimeter of the new shape? Explain why the perimeter changes or stays the same.

WORK SPACE AND ANSWER

ANSWER KEY

Rectangle Measure Quest

GRADE 4 · NY-4.MD.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the rectangle shown. Find its area.	**48 square cm**
2	Use the square shown. Find its perimeter and area.	**Perimeter = 24 m; area = 36 square m**
3	A rectangular dog run is 15 m long and 8 m wide. How many meters of fencing are needed to go around it?	**46 m**
4	A rectangle is 11 cm long and 5 cm wide. What is its area?	**55 square cm**
5	A rectangular art mat is 14 in long and 3 in wide. Find its perimeter and area.	**Perimeter = 34 in; area = 42 square in**
6	A rectangle has a perimeter of 36 cm and a length of 10 cm. Find its width and area.	**Width = 8 cm; area = 80 square cm**

PART 2 · APPLY IT

1. **160 square in; 52 in** Multiply 16 by 10 to find the cover area. Add the side lengths twice, 2 × (16 + 10), to find the tape length.
2. **240 square ft; 64 ft** Multiply 20 by 12 for area. Use 2 × (20 + 12) for perimeter.

CHALLENGE

Area = 108 square cm; perimeter = 44 cm. The cut removes 4 cm and 3 cm from the outside edges, but it adds new edges that are 4 cm and 3 cm, so the perimeter stays the same.

Accept equivalent wording and correct square-unit notation for area. For the challenge, accept an explanation that the removed side lengths equal the added cutout side lengths.