

Rectangle Measure Quest

Find perimeter and area with fractions and decimals.

GRADE 5 • MA.5.GR.2

MA.5.GR.2 "Find the perimeter and area of rectangles with fractional or decimal side lengths."

NAME _____

DATE _____

TWO RECTANGLE MEASURES

Perimeter is the distance around a rectangle. Add all four sides, or use $P = 2(\text{length} + \text{width})$. Area is the space inside a rectangle, so multiply length times width.

WORKED EXAMPLE

A rectangle is 3.6 cm long and 1.5 cm wide. Find its perimeter and area.

1. $P = 2(3.6 + 1.5)$

2. $P = 2(5.1) = 10.2 \text{ cm}$

3. $A = 3.6 \times 1.5$

4. $A = 5.4 \text{ square cm}$

Answer: Perimeter = 10.2 cm; area = 5.4 square cm

PRACTICE 6 problems

- 1** A rectangle is 4.2 cm long and 2 cm wide.
Find the perimeter and area.

ANSWER _____

- 2** A rectangle is $\frac{5}{6}$ ft long and $\frac{1}{3}$ ft wide.
Find the perimeter and area.

ANSWER _____

- 3** A rectangle is 7.5 m long and 0.8 m wide.
Find the perimeter and area.

ANSWER _____

- 4** A rectangle is $2\frac{3}{4}$ in. long and $1\frac{1}{2}$ in. wide.
Find the perimeter and area.

ANSWER _____

- 5** A rectangle is $\frac{3}{8}$ yd long and $\frac{1}{4}$ yd wide.
Find the perimeter and area.

ANSWER _____

- 6** A rectangle is 6.25 cm long and 1.2 cm wide.
Find the perimeter and area.

ANSWER _____

APPLY IT Show your work

- 1** Jalen is making a rectangular game board that is $3\frac{1}{2}$ ft long and $2\frac{1}{4}$ ft wide. He wants to put tape around the edge and cover the whole board with paper. How much tape does he need? How much paper does he need?

WORK SPACE

ANSWER _____

- 2** A school club has a rectangular snack table that is 2.75 m long and 1.6 m wide. They will put ribbon around the edge of the tablecloth and place a paper cover over the top. How much ribbon and paper cover are needed?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A rectangular poster has an area of $12\frac{1}{2}$ square inches and a length of 5 inches. Find the width and the perimeter. Show how you used the area to find the missing side length.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A rectangle is 4.2 cm long and 2 cm wide. Find the perimeter and area.	Perimeter = 12.4 cm; area = 8.4 square cm
2	A rectangle is $\frac{5}{6}$ ft long and $\frac{1}{3}$ ft wide. Find the perimeter and area.	Perimeter = $2\frac{1}{3}$ ft; area = $\frac{5}{18}$ square ft
3	A rectangle is 7.5 m long and 0.8 m wide. Find the perimeter and area.	Perimeter = 16.6 m; area = 6 square m
4	A rectangle is $2\frac{3}{4}$ in. long and $1\frac{1}{2}$ in. wide. Find the perimeter and area.	Perimeter = $8\frac{1}{2}$ in.; area = $4\frac{1}{8}$ square in.
5	A rectangle is $\frac{3}{8}$ yd long and $\frac{1}{4}$ yd wide. Find the perimeter and area.	Perimeter = $1\frac{1}{4}$ yd; area = $\frac{3}{32}$ square yd
6	A rectangle is 6.25 cm long and 1.2 cm wide. Find the perimeter and area.	Perimeter = 14.9 cm; area = 7.5 square cm

PART 2 • APPLY IT

- Tape needed: $11\frac{1}{2}$ ft; paper needed: $7\frac{7}{8}$ square ft** Add the length and width, then double the sum for the tape. Multiply $3\frac{1}{2}$ by $2\frac{1}{4}$ for the paper.
- Ribbon needed: 8.7 m; paper cover needed: 4.4 square m** Use $2(2.75 + 1.6)$ to find the ribbon length. Multiply 2.75 by 1.6 to find the area of the cover.

CHALLENGE

Width = $2\frac{1}{2}$ in.; perimeter = 15 in.

Accept equivalent fraction forms and decimal equivalents when they are correct. Students should include units, using square units for area and regular units for perimeter.