LESSON MAKER PRO

Measure It All

Find perimeter, area, and volume in real situations.

GRADE 5 · 5.MG.2.g

5.MG.2.g "Solve contextual problems that involve perimeter, area, and volume in standard units of measure."

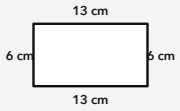
NAME _____ DATE _____

THREE WAYS TO MEASURE

Perimeter is the distance around a flat shape, so add all side lengths. Area is the space inside a flat shape, and for a rectangle, multiply length by width. Volume is the space inside a rectangular prism, so multiply length by width by height.

WORKED EXAMPLE

Find the area of the rectangle shown.

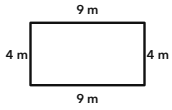


1. Area = length × width.
2. Area = 13 cm × 6 cm.
3. Area = 78 cm^2.
4. The rectangle has an area of 78 cm^2.

Answer: 78 cm^2

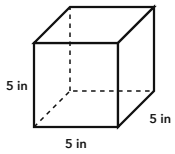
PRACTICE 6 problems

1 Find the perimeter of the rectangle shown.



ANSWER _____

2 Find the volume of the cube shown.



ANSWER _____

3 A rectangular garden bed is 10 feet long and 2 feet wide. What is its area?

ANSWER _____

4 A rectangular storage bin is 14 centimeters long, 3 centimeters wide, and 7 centimeters high. What is its volume?

ANSWER _____

5 A square poster has side lengths of 12 yards. What is its perimeter?

ANSWER _____

6 A rectangular rug is 11 feet long and 8 feet wide. What is its area?

ANSWER _____

APPLY IT Show your work

1 The game club is making a rectangular floor banner that is 16 feet long and 9 feet wide. How many feet of border do they need, and how many square feet of fabric will the banner use?

WORK SPACE

ANSWER _____

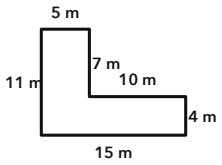
2 A collector packs trading cards in a rectangular box that is 15 centimeters long, 4 centimeters wide, and 8 centimeters high. What is the volume of the box?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The L-shaped patio shown will be covered with 1-square-meter tiles. How many tiles are needed? What is the distance around the outside edge of the patio?



WORK SPACE AND ANSWER

ANSWER KEY

Measure It All

GRADE 5 · 5.MG.2.g

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the perimeter of the rectangle shown.	**26 m**
2	Find the volume of the cube shown.	**125 in^3**
3	A rectangular garden bed is 10 feet long and 2 feet wide. What is its area?	**20 ft^2**
4	A rectangular storage bin is 14 centimeters long, 3 centimeters wide, and 7 centimeters high. What is its volume?	**294 cm^3**
5	A square poster has side lengths of 12 yards. What is its perimeter?	**48 yd**
6	A rectangular rug is 11 feet long and 8 feet wide. What is its area?	**88 ft^2**

PART 2 · APPLY IT

1. **50 ft of border; 144 ft^2 of fabric** Find perimeter with 16 + 16 + 9 + 9 = 50. Find area with 16 × 9 = 144.
2. **480 cm^3** Multiply the three dimensions: 15 × 4 × 8 = 480.

CHALLENGE

95 tiles; 52 m

Accept equivalent unit wording, such as square feet for ft^2 and cubic centimeters for cm^3. For the challenge, accept a correct decomposition such as 15 × 4 + 5 × 7 for the area.