

## LESSON

## 8-4

**Problem Solving****Area of Parallelograms**

Write the correct answer.

1. A dollar bill has an area of 15.86 square inches. If a dollar bill is 2.6 inches long, how wide is it?

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2. On an official United States flag, the ratio of width to length is exactly 1 to 1.9. What is the area of a United States flag whose width is 2 feet?

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3. A back yard is shaped like a parallelogram with a height of 32 feet and a base of 100 feet. One bag of grass seed covers 125 square feet. What is the least number of bags of seed needed to seed the lawn?

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4. The art club is painting a mural on a school wall. The mural is in the shape of a parallelogram. If the base of the mural is 10.5 feet long and the mural covers 89.25 square feet, how high is the mural?

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Choose the letter of the correct answer.

5. In baseball, the area of each base is 225 square inches. Each base is a square. What is the length of each side of a base on a baseball field?

A 12 in.

C 25 in.

B 22.5 in.

D 15 in.

6. The area of a parallelogram is 632.1 square centimeters. Its base is 24.5 centimeters. What is the height of the parallelogram?

F 25.8 cm

H 21.9 cm

G 705.6 cm

J 11.8 cm

7. The official rules for volleyball were developed in 1897. The rules state that the court or floor space must be 25 feet wide and 50 feet long. An official basketball court is 94 feet by 50 feet. How much larger is the area of a basketball court than the area of a volleyball court?

A 69 ft<sup>2</sup> larger

B 3,450 ft<sup>2</sup> larger

C 1,250 ft<sup>2</sup> larger

D 4,700 ft<sup>2</sup> larger

8. Two parallelograms each have an area of 288 square inches. One has a height of 12 inches, and the other has a height of 18 inches. What are the bases of each parallelogram?

F 40 in. and 30 in.

G 22 in. and 15 in.

H 24 in. and 16 in.

J 26 in. and 20 in.