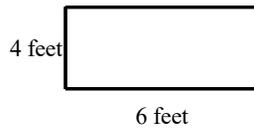


1. What is the area of this rectangle?



- [A] 24 square feet      [B] 10 square feet  
 [C] 23 feet              [D] 24 feet
2. A rectangle is 9.9 inches long and 2.8 inches wide. Find its area.
- [A] 12.7 in.              [B] 27.72 in.<sup>2</sup>  
 [C] 25.4 in.              [D] 277.2 in.<sup>2</sup>
3. Find the area of the rectangle with the given base and height.  
 2 yd 24 in., 12 yd
- [A] 29 yd<sup>2</sup> 12 in.<sup>2</sup>      [B] 32 yd<sup>2</sup>  
 [C] 24 yd<sup>2</sup> 48 in.<sup>2</sup>      [D] 48 yd<sup>2</sup> 24 in.<sup>2</sup>
4. Find the area of the rectangle with the given base and height.  
 3 ft 8 in., 4 in.
5. A rectangle is 20 in. tall. Its area is 260 in.<sup>2</sup>.  
 What is its width?
- [A] 15 in.                  [B] 68 in.  
 [C] 66 in.                  [D] 13 in.

6. The area of a rectangle is 168 square centimeters. If its width is 14 centimeters, what is its length?
7. The cost of seeding a lawn is directly proportional to the area to be seeded. The cost of seeding an area 10 feet by 8 feet is \$8.00. How much does it cost to seed an area that measures 60 feet by 10 feet?
8. A city regulates advertising signs. They *cannot* exceed 36 ft<sup>2</sup> and *cannot* be more than 6 ft high. Draw and label the dimensions for three possible signs.
9. Mr. Alan's family room is a rectangle that measures 7 meters by 5 meters. In the room is a fireplace that extends out from the wall 0.5 meter and measures 1 meter across. Mr. Alan wants to cover the floor with carpet that costs \$12 per square meter. How much will the carpet cost?
10. Thom's living room is 10 ft by 12 ft by 8 ft high. He plans to paint one of the long walls as follows: a yellow square 7 ft by 7 ft in one corner and an overlapping blue square 6 ft by 6 ft in the opposite corner. What percent of the wall will be painted either blue or yellow? What percent will be painted with both colors?

11. The area of a rectangle is decreased by 25%. Which of the following could happen?
- [A] Both sides are decreased by 50%.
- [B] One side is decreased by 50%.
- [C] Both sides are decreased by 25%.
- [D] One side is decreased by 25%.
- [E] none of the above
- 
12. If a rectangle's length is increased by 70% and its width is decreased by 55%, then what is the percent change in area?
- 
13. Compare the quantity in Column A with the quantity in Column B.
- |  |  |
|--|--|
| <u>Column A</u>                                      | <u>Column B</u>  |
| perimeter of a square<br>with area $64 \text{ cm}^2$ | perimeter of a rectangle that is not<br>a square with area $64 \text{ cm}^2$ |
- [A] The quantity in Column A is greater.
- [B] The quantity in Column B is greater.
- [C] The two quantities are equal.
- [D] The relationship cannot be determined on the basis of the information supplied.

Geometry Practice G.MG.A.3: Area 3

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[1] A \_\_\_\_\_

[2] B \_\_\_\_\_

[3] B \_\_\_\_\_

[4]  $1 \text{ ft}^2 \text{ } 32 \text{ in.}^2$  \_\_\_\_\_

[5] D \_\_\_\_\_

[6] 12 cm \_\_\_\_\_

[7] \$60.00 \_\_\_\_\_

Answers may vary. Sample: 4 ft high and 9 ft long, 6 ft high and 6 ft long, or 3 ft high and

[8] 12 ft long \_\_\_\_\_

[9] \$414 \_\_\_\_\_

83.3% painted blue or yellow; 5.2% painted

[10] both colors \_\_\_\_\_

[11] D \_\_\_\_\_

[12]  $23\frac{1}{2}\%$  decrease \_\_\_\_\_

[13] B \_\_\_\_\_