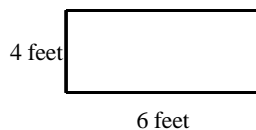


P.I. G.G.39: Investigate, justify, and apply theorems about special parallelograms (rectangles, rhombuses, squares) involving their angles, sides, and diagonals

1. What is the area of this rectangle?



- [A] 24 square feet [B] 10 square feet
[C] 23 feet [D] 24 feet

[1] _____

2. A rectangle is 9.9 inches long and 2.8 inches wide. Find its area.

- [A] 12.7 in. [B] 27.72 in.²
[C] 25.4 in. [D] 277.2 in.²

[2] _____

3. Find the area of the rectangle with the given base and height.
2 yd 24 in., 12 yd

- [A] 29 yd² 12 in.² [B] 32 yd²
[C] 24 yd² 48 in.² [D] 48 yd² 24 in.²

[3] _____

NAME: _____

4. Find the area of the rectangle with the given base and height.
3 ft 8 in., 4 in.

[4] _____

5. A rectangle is 20 in. tall. Its area is 260 in.². What is its width?

- [A] 15 in. [B] 68 in.
[C] 66 in. [D] 13 in.

[5] _____

6. The area of a rectangle is 168 square centimeters. If its width is 14 centimeters, what is its length?

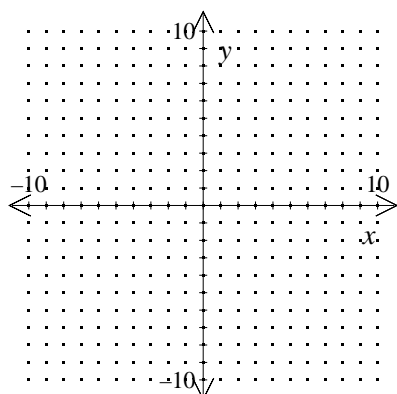
[6] _____

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?

[7] _____

8. Graph rectangle $ABCD$ and find its area.

$A(-9, 3)$, $B(-9, -4)$, $C(-5, -4)$, $D(-5, 3)$



[8] _____

9. A city regulates advertising signs. They *cannot* exceed 36 ft^2 and *cannot* be more than 6 ft high. Draw and label the dimensions for three possible signs.

[9] _____

10. 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] _____

11. 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] _____

12. 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] _____

13. 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] _____

Geometry Practice: G.G.39 #4

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[1] A

[2] B

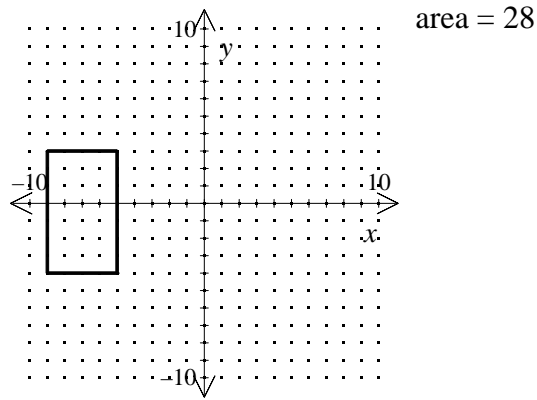
[3] B

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

[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

[9] 12 ft long

[10] \$414

83.3% painted blue or yellow; 5.2% painted

[11] both colors

[12] D

[13] $23\frac{1}{2}\%$ decrease