Name: _____ Date: _____

TEST PREP

12 Area and Perimeter

25

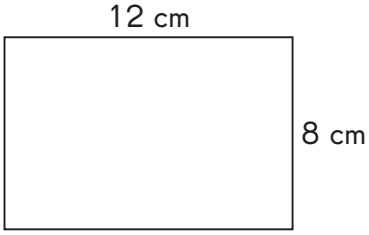
Suggested Time: 30 min

Multiple Choice

(5 × 2 points = 10 points)

Fill in the circle next to the correct answer.

1. Find the area of the rectangle.



Ⓐ 20 cm^2

Ⓑ 24 cm^2

Ⓒ 40 cm^2

Ⓓ 96 cm^2

2. Find the length of a rectangle that has a perimeter of 64 feet and a width of 4 feet.

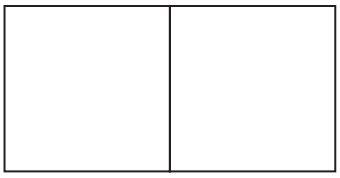
Ⓐ 14 ft

Ⓑ 16 ft

Ⓒ 28 ft

Ⓓ 32 ft

3. The figure is made up of two identical squares and has a perimeter of 42 inches. What is the area of one square?



Ⓐ 7 $in.^2$

Ⓑ 28 $in.^2$

Ⓒ 49 $in.^2$

Ⓓ 84 $in.^2$

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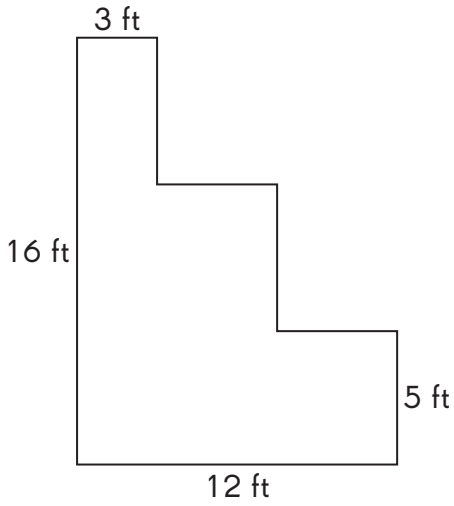
4. Find the perimeter of the figure.



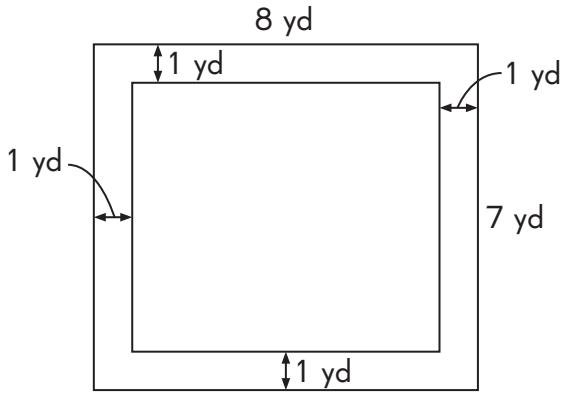
Ⓐ 28 ft

Ⓑ 36 ft

Ⓒ 56 ft

Ⓓ 192 ft

5. A carpet is placed on a rectangular floor as shown in the diagram. Find the area of the floor not covered by the carpet.



Ⓐ 56 yd^2

Ⓑ 30 yd^2

Ⓒ 26 yd^2

Ⓓ 16 yd^2

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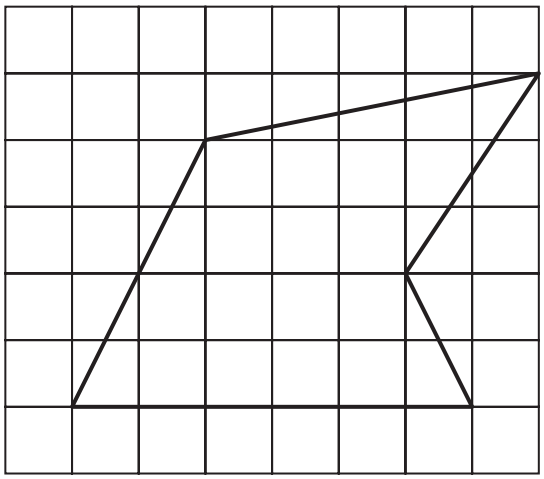
Short Answer

(5 × 2 points = 10 points)

Solve. Show your work.

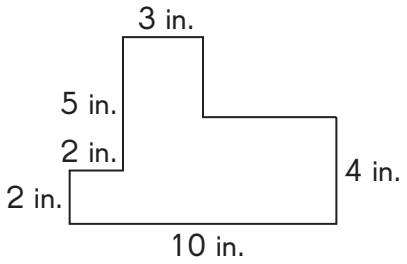
6. The area of a square is 64 square centimeters. Find the perimeter of the square.

7. Estimate the area of the figure.



Area = _____ units^2

8. Find the perimeter of the figure.



Perimeter = _____ in.

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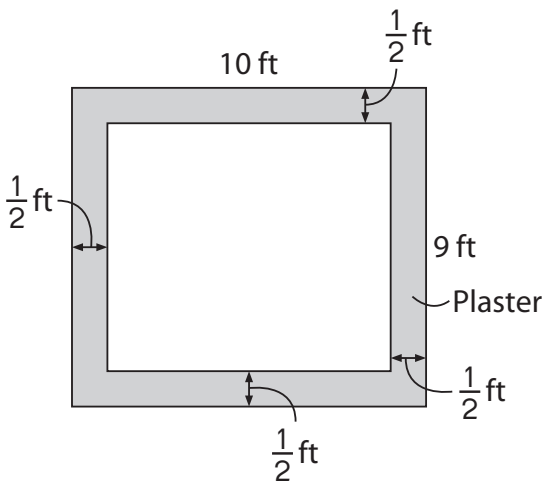
9. The length of a rectangle is twice its width. The area of the rectangle is 18 square centimeters. Find the perimeter of the rectangle.

10. A ceiling has a border made of plaster around its edge. The width of the plaster border is $\frac{1}{2}$ foot. The area not covered by plaster needs to be painted.



a. What is the area of the ceiling that needs to be painted?

b. The cost of painting the ceiling is $5 per square foot. How much will it cost to paint the area of the ceiling that needs to be painted?

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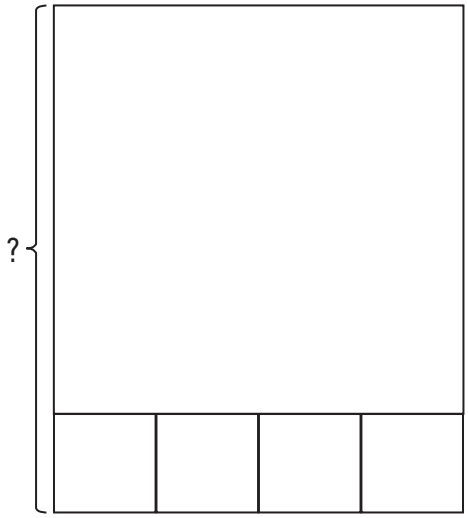
Extended Response

(2 × 2.5 points = 5 points)

Solve. Show your working.

11. The figure is made up of a big square and 4 smaller identical squares. The area of the whole figure is 980 square inches. Find the unknown length.



12. A rectangular piece of paper is folded along the dotted lines as shown. Find the area of the folded figure.