


4.3 Independent Practice

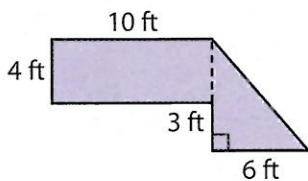
FL 7.G.2.6



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5. A banner is made of a square and a semicircle. The square has side lengths of 26 inches. One side of the square is also the diameter of the semicircle. What is the total area of the banner? Use 3.14 for π .

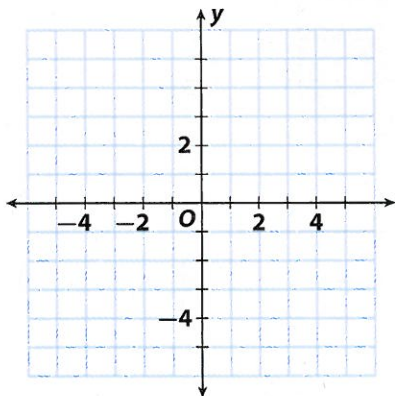
6. **Multistep** Erin wants to carpet the floor of her closet. A floor plan of the closet is shown.



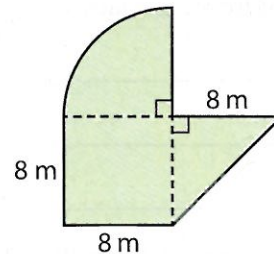
- a. How much carpet does Erin need?

- b. The carpet Erin has chosen costs \$2.50 per square foot. How much will it cost her to carpet the floor?

7. **Multiple Representations** Hexagon $ABCDEF$ has vertices $A(-2, 4)$, $B(0, 4)$, $C(2, 1)$, $D(5, 1)$, $E(5, -2)$, and $F(-2, -2)$. Sketch the figure on a coordinate plane. What is the area of the hexagon?

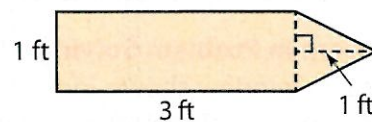


8. A field is shaped like the figure shown. What is the area of the field? Use 3.14 for π .



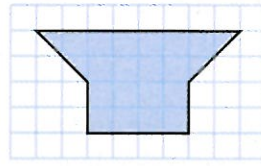
9. A bookmark is shaped like a rectangle with a semicircle attached at both ends. The rectangle is 12 cm long and 4 cm wide. The diameter of each semicircle is the width of the rectangle. What is the area of the bookmark? Use 3.14 for π .

10. **Multistep** Alex is making 12 pennants for the school fair. The pattern he is using to make the pennants is shown in the figure. The fabric for the pennants costs \$1.25 per square foot. How much will it cost Alex to make 12 pennants?

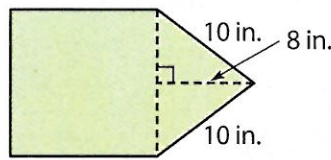


11. **Reasoning** A composite figure is formed by combining a square and a triangle. Its total area is 32.5 ft^2 . The area of the triangle is 7.5 ft^2 . What is the length of each side of the square? Explain.

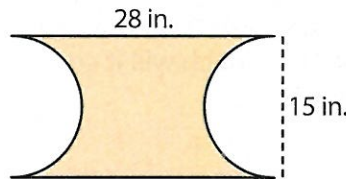
- 12. Represent Real-World Problems** Christina plotted the shape of her garden on graph paper. She estimates that she will get about 15 carrots from each square unit. She plans to use the entire garden for carrots. About how many carrots can she expect to grow? Explain.



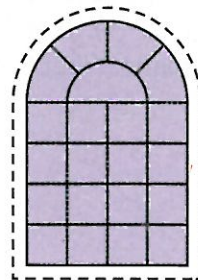
- 13. Analyze Relationships** The figure shown is made up of a triangle and a square. The perimeter of the figure is 56 inches. What is the area of the figure? Explain.



- 14. Critical Thinking** The pattern for a scarf is shown at right. What is the area of the scarf? Use 3.14 for π .



- 15. Persevere in Problem Solving** The design for the palladium window shown includes a semicircular shape at the top. The bottom is formed by squares of equal size. A shade for the window will extend 4 inches beyond the perimeter of the window, shown by the dashed line around the window. Each square in the window has an area of 100 in^2 .



- a. What is the area of the window? Use 3.14 for π .

- b. What is the area of the shade? Round your answer to the nearest whole number.
