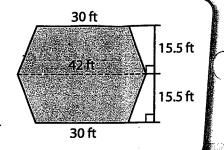


Mourauma

5. The diagram shows the floor plan of a hotel lobby. Carpet costs \$3 per square foot. How much will it cost to carpet the lobby?

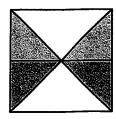


**Guided Practice** 

HW# 54

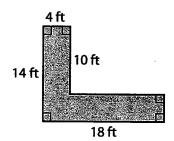
1\_2

1. In the diagram, the area of the large square is 1 square unit. Two diagonal segments divide the square into four equal-sized triangles. Two of these triangles are divided into smaller red and blue triangles that all have the same height and base length. Find the area of a red triangle. (Explore Activity)

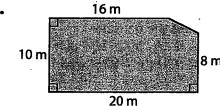


Find the area of each polygon. (Example 1)

2.



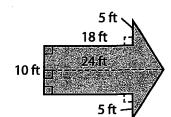
3.



 $A = \underline{\hspace{1cm}}$  square feet

A = \_\_\_\_\_ square meters

**4.** Jess is painting a giant arrow on a playground. Find the area of the giant arrow. If one can of paint covers 100 square feet, how many cans should Jess buy? (Example 2)



## **ESSENTIAL QUESTION**

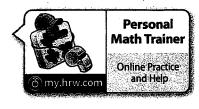
5. How can you find the area of a polygon that is not one for which you know an area formula?

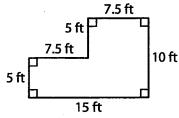
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## 13.4 Independent Practice

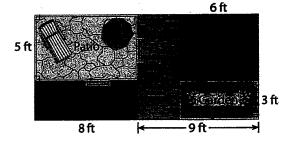


- **6.** Alice wants to put wall-to-wall carpeting in a small room with the floor plan shown.
  - **a.** Alice says she can find the area of the room by dividing the floor plan into two trapezoids. Show how she can divide the floor plan. Then find the area using her method.





- **b.** Describe another way to find the area.
- c. How much will Alice pay for carpet that costs \$4.50 per square foot?
- 7. Hal's backyard has a patio, a walkway, and a garden.
  - a. About what percent of the total area of Hal's backyard is the area taken up by the patio, walkway, and garden? Round to the nearest whole percent.



- **b.** One longer side of Hal's backyard lies next to the back of his house. Hal wants to build a fence that costs \$9.75 per foot around the other three sides. How much will Hal spend on his new fence?
- **8.** The students in a furniture-making class make a tabletop shaped like the figure shown. The tabletop has squares cut out of the corners.
  - a. What is the area of the tabletop?
  - **b.** One of the students wants to make a tabletop shaped like a right triangle. This tabletop will have the same area as the tabletop shown. What are a set of possible lengths for the sides that meet in a right angle on this tabletop? Explain.

