

MY Homework

Lesson 8

Area of Composite Figures

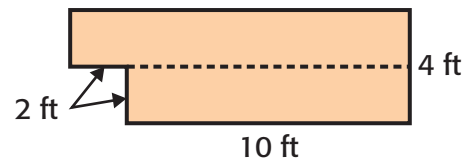
Homework Helper



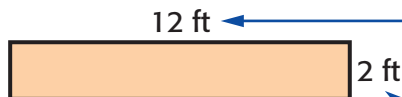
Need help? connectED.mcgraw-hill.com

Find the area of the composite figure.

- 1 Break the composite figure into smaller parts. Look for rectangles.



Rectangle 1



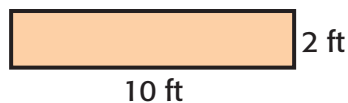
$$10 + 2 = 12$$

So, this length is 12 feet.

$$4 - 2 = 2$$

So, this length is 2 feet.

Rectangle 2



- 2 Find the area of each part.

Rectangle 1

$$\begin{aligned} A &= \ell \times w \\ &= 12 \times 2 \\ &= (10 \times 2) + (2 \times 2) \quad \text{Decompose 12 as } 10 + 2. \\ &= 20 + 4 \\ &= 24 \end{aligned}$$

Rectangle 2

$$\begin{aligned} A &= \ell \times w \\ &= 10 \times 2 \\ &= 20 \end{aligned}$$

The area of Rectangle 1 is 24 square feet.

The area of Rectangle 2 is 20 square feet.

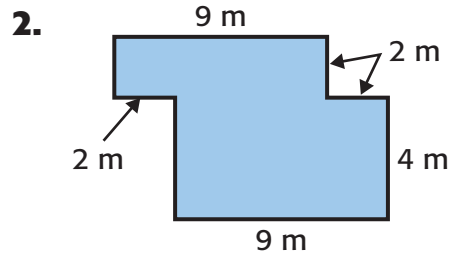
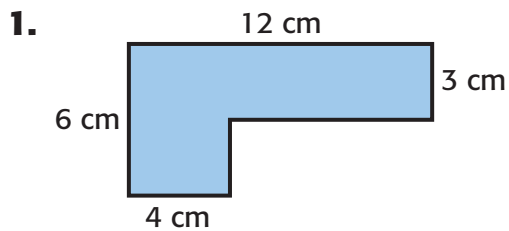
- 3 Add the areas.

$$24 + 20 = 44$$

The area of the composite figure is 44 square feet.

Practice

Find the area of each composite figure. Show your work.



The area is 48 square centimeters. The area is 54 square meters.

Vocabulary Check



3. Draw an example of a composite figure. **See students' work.**




Problem Solving

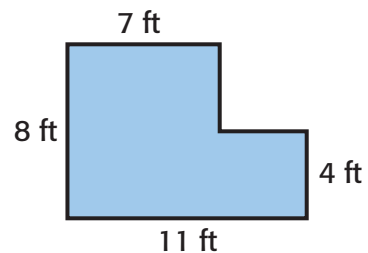
The composite figure shows the floor plan of a bathroom.

4. What is the area of the bathroom floor?

72 square feet

5. **Mathematical PRACTICE**  **Plan Your Solution** The floor will be covered in square tiles. If one square tile covers one square foot, how many tiles are needed?

72 tiles



Test Practice

6. What is the area of the composite figure shown?

- (A) 8 square units (C) 16 square units
(B) 12 square units (D) 20 square units

