## **Problem Solving • Practice Addition and Subtraction**

**COMMON CORE STANDARD—5.NF.A.2**Use equivalent fractions as a strategy to add and subtract fractions.

Read each problem and solve.

**1.** From a board 8 feet in length, Emmet cut two  $2\frac{1}{3}$ -foot bookshelves. How much of the board remained?

Write an equation: 
$$8 = 2\frac{1}{3} + 2\frac{1}{3} + x$$

Rewrite the equation to work backward:

$$8 - 2\frac{1}{3} - 2\frac{1}{3} = x$$

Subtract twice to find the length remaining:  $3\frac{1}{3}$  feet

- **2.** Lynne bought a bag of grapefruit,  $1\frac{5}{8}$  pounds of apples, and  $2\frac{3}{16}$  pounds of bananas. The total weight of her purchases was  $7\frac{1}{2}$  pounds. How much did the bag of grapefruit weigh?
- **3.** Mattie's house consists of two stories and an attic. The first floor is  $8\frac{5}{6}$  feet tall, the second floor is  $8\frac{1}{2}$  feet tall, and the entire house is  $24\frac{1}{3}$  feet tall. How tall is the attic?
- **4.** It is  $10\frac{3}{5}$  miles from Alston to Barton and  $12\frac{1}{2}$  miles from Barton to Chester. The distance from Alston to Durbin, via Barton and Chester, is 35 miles. How far is it from Chester to Durbin?
- **5.** Marcie bought a 50-foot roll of packing tape. She used two  $8\frac{5}{6}$ -foot lengths. How much tape is left on the roll?
- **6. WRITE** Math Write a word problem involving fractions for which you would use the *work backward* strategy and addition to solve. Include your solution.