Problem Solving • Practice Addition and Subtraction

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.
Lesson Check (5.NF.A.2)

1. Paula spent \(\frac{3}{8}\) of her allowance on clothes and \(\frac{1}{6}\) on entertainment. What fraction of her allowance did she spend on other items?

2. Della bought a tree seedling that was \(2\frac{1}{4}\) feet tall. During the first year, it grew \(1\frac{1}{6}\) feet. After two years, it was 5 feet tall. How much did the seedling grow during the second year?

Spiral Review (5.OA.A.1, 5.NBT.A.2, 5.NBT.B.6, 5.NF.B.7)

3. What is a way to write 100,000 using exponents?

4. What expression can be used for estimating \(868 \div 28\)?

5. Justin gave the clerk $20 to pay a bill of $6.57. How much change should Justin get?

6. What is the value of the following expression?

\[7 + 18 \div (6 - 3)\]