



Review

Do You Know How?



Estimating Sums and Differences of Mixed Numbers (8-6)

Estimate each sum. Round to the nearest whole number.

$$1. 1\frac{7}{8} + 10\frac{3}{4} \quad \mathbf{13} \qquad 2. 14\frac{1}{2} + 2\frac{1}{3} \quad \mathbf{17}$$

$$3. 4\frac{1}{3} + 1\frac{11}{12} \quad \mathbf{6} \qquad 4. 3\frac{9}{10} + \frac{5}{6} \quad \mathbf{5}$$

Do You Understand?



A. Sample answer: The numerator is less than half the denominator; The numerator is more than half the denominator.

- A** How can you tell when a fraction is less than $\frac{1}{2}$? Greater than $\frac{1}{2}$? **See above.**
- B** How do you round when a mixed number is halfway between two whole numbers? **Round it to the next higher whole number.**

Understanding Adding and Subtracting Mixed Numbers (8-5)

Adding Mixed Numbers (8-7)

Subtracting Mixed Numbers (8-8)

Add or subtract. Simplify, if necessary. You may use fraction strips or draw pictures to help.

$$5. 3\frac{1}{10} - 2\frac{1}{5} \qquad 6. 2\frac{1}{6} \qquad 7. 5\frac{9}{10} + 4\frac{1}{4}$$

$$\begin{array}{r} \frac{9}{10} \\ + 1\frac{7}{8} \\ \hline 4\frac{1}{24} \end{array} \qquad \mathbf{10\frac{3}{20}}$$

$$8. 11 - 2\frac{7}{9} \qquad 9. 9\frac{1}{2} \qquad 10. 12\frac{3}{8} + 3\frac{7}{16}$$

$$\begin{array}{r} 8\frac{2}{9} \\ - 4\frac{1}{5} \\ \hline 5\frac{3}{10} \end{array} \qquad \mathbf{15\frac{13}{16}}$$

C. Sample answer: When the fraction's numerator is larger than its denominator; $3\frac{5}{4}$

- C** Explain when you need to simplify a mixed number answer. Give an example. **See above.**
- D** Explain when you have to rename before you can subtract mixed numbers. Give an example. **Sample answer:** With common denominators, it is when the first numerator is less than the second numerator; $4\frac{3}{8} - 3\frac{7}{8}$

Problem-Solving Strategy: Work Backward (8-9)

- 11.** John has \$7 left from the money his father gave him at the baseball game. He spent \$8 on food and \$10 on a T-shirt. How much money did John's father give him? **\$25**
- 12.** A winter storm began on Friday and by Monday morning there were 7 inches left. On Saturday, it melted 3 inches, and on Sunday it snowed another 4 inches. How much did it snow on Friday? **6 inches**

- E** What strategy did you use to solve Exercise 11? **Work backward**
- F** Is your answer to Exercise 11 reasonable? Explain how you know. **See below.**
- G** Explain how you solved Exercise 12. **Sample answer:** Starting with 7 in., subtract the 4 in. it snowed Sunday, to get 3 in. Then add the 3 in. it melted on Saturday, to get 6 in.

F. Sample answer: Yes; Checking $\$25 - \$8 - \$10$ does get \$7.