

Mistake Finder Answer Key

1. Mistake: Added the denominators. / Correct answer: $\frac{5}{8}$
2. Mistake: Incorrect subtraction of mixed numbers. / Correct answer: $\frac{3}{4}$ yard
3. Mistake: Did not simplify correctly. $\frac{6}{3} = 2$, not 6. / Correct answer: 2 cups
4. Mistake: Dividing by $\frac{1}{2}$ means finding how many halves are in 4. / Correct answer: 8 pieces
5. Mistake: The problem asks how much is left, which is already given. No subtraction is needed. / Correct answer: $\frac{1}{6}$ of the book
6. Mistake: Incorrect multiplication. / Correct answer: 18 students
7. Mistake: Added the denominators instead of keeping the common denominator. / Correct answer: $\frac{3}{5}$ gallon
8. Mistake: Divided the numerators and denominators instead of dividing fractions correctly. / Correct answer: 3 pieces

Teacher's Guide

- Quick implementation tips
 - Ask students to identify the mistake before calculating the correct answer.
 - Encourage students to explain the error in words.
 - Review common fraction misconceptions before beginning.
- Differentiation strategies
 - Model one example as a class before independent work.
 - Pair students to discuss each error and agree on a correction.
 - Challenge advanced students to create a similar incorrect solution for a classmate to analyze.
- Engagement ideas
 - Treat each problem like a "math mystery" and have students act as detectives.
 - Let students vote on what type of mistake was made before revealing the correct reasoning.
- Extension activities
 - Have students rewrite each incorrect solution correctly, showing all steps.
 - Ask students to sort the mistakes into categories such as "operation error," "fraction computation error," or "reasoning error."