

Reason It Out Answer Key

1. Answer: $\frac{7}{12}$
Sample explanation: I found the least common denominator of 12. I renamed both fractions with twelfths so I could subtract the numerators.
2. Answer: $\frac{1}{8}$
Sample explanation: The least common denominator is 8. I changed $\frac{1}{2}$ to $\frac{4}{8}$ so both fractions had the same denominator.
3. Answer: $\frac{7}{15}$
Sample explanation: The least common denominator is 15. I renamed both fractions as fifteenths before subtracting.
4. Answer: $\frac{9}{20}$
Sample explanation: The least common denominator is 20. I rewrote both fractions with a denominator of 20, then subtracted the numerators.
5. Answer: $\frac{1}{2}$
Sample explanation: The least common denominator is 6. I changed $\frac{1}{3}$ to $\frac{2}{6}$ so both fractions had the same denominator, then simplified.
6. Answer: $\frac{19}{24}$
Sample explanation: The least common denominator is 24. I renamed both fractions with twenty-fourths before subtracting.

Teacher's Guide

- Model one example by thinking aloud as you find the least common denominator and rename the fractions.
- Accept explanations that correctly describe the process, even if students use different wording.
- Provide sentence starters such as "I found the least common denominator by..." or "I renamed the fractions because..."
- Have students share explanations with a partner and compare their mathematical reasoning.
- Encourage students to check that they simplified the final answer after subtracting.
- Extend the activity by asking students to explain why subtracting fractions with different denominators without renaming them does not work.