Vocabulary and Formulas
Rational equation
Rational equation formula
Rational expression
Rational expression formula
Lowest common multiple
Lowest common denominator
Proportions
Proportion formula

1. Solve for x (Section 6.6). \[ \frac{x}{3} + \frac{3}{4} = \frac{x}{12} \]
2. Solve for x (Section 6.6). \[ \frac{2}{x-1} = \frac{3}{x} \]
3. Solve for x (Section 6.6). \[ \frac{2}{x-3} + 4 = \frac{6}{x-3} \]
4. Solve for x (Section 6.6). \[ \frac{3}{x^2-25} + \frac{1}{x+5} = \frac{8}{x-5} \]
5. Solve for x (Section 6.6). \[ x + \frac{5}{x} = 6 \]
6. Solve for x (Section 6.6) \[ \frac{4}{x+2} + \frac{5}{8} = \frac{3}{2x+4} \]
7. Solve for x (Section 6.6) \[ \frac{t}{t+3} = \frac{9}{t^2+3t} \]
8. Solve for x (Section 6.6) \[ \frac{5}{x-1} - \frac{6}{x+2} = \frac{3x}{x^2+x-2} \]
9. A tree casts a shadow of 39 feet when a 4-foot post nearby casts a shadow of 6 feet. How tall is the tree? (Section 6.7)
10. To estimate a deer population, a researcher captures, tags, and releases 25 deer. Several weeks later, 30 deer were caught and 7 had tags. Estimate the deer population in that area. (Section 6.7)