

Solving Rational Equations

Solve for x and check for excluded values.

1. $\frac{2}{x-2} - \frac{2x}{3} = \frac{x-3}{3}$

2. $1 + \frac{3}{x-3} = \frac{4}{x^2-9}$

3. $\frac{x}{x-1} = \frac{2x+10}{x+11}$

4. $\frac{4x}{x-5} = \frac{20}{x-5}$

$$5. \frac{4}{x} - \frac{1}{x+2} = \frac{2}{x}$$

$$6. \frac{1}{x-5} - \frac{1}{x+5} = \frac{x+3}{x^2-25}$$

$$7. \frac{x}{x-4} + 1 = \frac{4}{x-4}$$

$$8. \frac{x}{x+2} + \frac{2}{x^2+5x+6} = \frac{15}{x+3}$$