

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

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

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

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

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