

Name _____

Due Date _____

Block _____

Rational Functions Practice Test #2.3

Simplify:

1. $\frac{x-5}{x-2} \cdot \frac{x-1}{x+5} \cdot \frac{x-2}{x-1}$	2. $\frac{x-3}{x+5} + \frac{x}{x+2}$
3. $\frac{x-1}{x-3} - \frac{x-3}{x+1}$	4. $\frac{x^2-7x+12}{x-3}$
5. $\left(\frac{5x+6}{x-5} + \frac{x-3}{x+5}\right) \cdot \frac{x^2-25}{4x+1}$	

Solve. Be sure to check for extraneous solutions.

6. $\frac{x}{8} - \frac{2}{x} = \frac{3}{4}$	7. $\frac{3x}{5} - \frac{4}{2x} = \frac{-7}{10}$
8. $\frac{x-3}{x+4} + \frac{2x-1}{x+1} = \frac{2x^2+4x+13}{x^2+5x+4}$	9. $\frac{x+5}{x-1} - \frac{x-3}{x+2} = \frac{-x^2+7x+12}{x^2+x-2}$
10. $\frac{x+5}{x-3} + \frac{x-1}{x+2} - \frac{x-3}{x+5} = \frac{27x^2+77}{x^3+4x^2-11x-30}$	