

Name _____
Due Date _____
Block _____

Rational Functions Practice Test #2.2

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. $\frac{x}{4} + \frac{3}{x} = \frac{-7}{4}$	7. $\frac{x}{2} - \frac{4}{x} = -1$
8. $\frac{x-5}{x+7} - \frac{x+3}{x-2} = \frac{-x^2-21x+1}{x^2+5x-14}$	9. $\frac{x+3}{x-7} + \frac{x-1}{x+4} = \frac{12x+26}{x^2-3x-28}$
10. $\frac{x-1}{x+2} + \frac{x+3}{x-4} + \frac{x-1}{x+5} = \frac{2x^3+10x^2+38x+106}{x^3+3x^2-18x-40}$	