

Name _____

Due Date _____

Block _____

Rational Functions Practice Test #2.1

Simplify:

1. $\frac{x+5}{x-2} \cdot \frac{x-3}{x+5} \cdot \frac{x}{x-2}$	2. $\frac{x+3}{x-5} + \frac{x-5}{x+4}$
3. $\frac{x-8}{x+4} - \frac{x-3}{x+1}$	4. $\frac{x^2+8x+15}{x+3}$
5. $\left(\frac{x+6}{x-3} + \frac{x-5}{x+2}\right) \cdot \frac{x^2-x-6}{2x+5}$	

Solve. Be sure to check for extraneous solutions.

6. $\frac{x}{5} + \frac{3}{x} = 8x$	7. $\frac{x}{4} + \frac{5}{x} = -9x$
8. $\frac{x+3}{x+5} + \frac{x+3}{x+7} = \frac{11x+26}{x^2+12x+35}$	9. $\frac{x-2}{x+5} - \frac{x-1}{x+4} = \frac{-x^2-11x-23}{x^2+9x+20}$
10. $\frac{x+2}{x-1} + \frac{x-3}{x-2} - \frac{x-3}{x+4} = \frac{-x^3-3x^2-45x+14}{x^3+x^2-10x+8}$	