

Name _____

Due Date _____

Block _____

Rational Functions #3

Simplify each expression. Show your work on another piece of paper.

1. $\frac{x}{4} \cdot \frac{9}{x^2}$

2. $\frac{4}{x} + \frac{x}{5}$

3. $\frac{8x}{x+2} \cdot \frac{2x}{x+1}$

4. $\frac{x+1}{x+2} \cdot \frac{x+2}{x+3} \cdot \frac{5}{x+1}$

5. $\frac{x+4}{x+1} + \frac{x+2}{x+1} - \frac{x-3}{x+1}$ (Careful!!!)

6. $\frac{x+5}{x+2} + \frac{4}{x}$

7. $\frac{x+3}{x-5} \div \frac{x+3}{x}$

8. $\frac{4}{x^2+4x+4} + \frac{8}{x+2}$

9. $\frac{x+1}{x^2+5x+6} + \frac{x+3}{x^2+4x+4}$

10. $\frac{x^3+3x^2+3x+1}{x^2+7x+6}$