

Winter Break Extra Credit

Date _____ Period _____

Simplify each expression.

1) $\frac{2}{x+1} - \frac{5x}{x-2}$

2) $\frac{2x-4}{x-5} + \frac{5}{x+5}$

3) $\frac{4}{x-5} - \frac{4}{x-4}$

4) $\frac{6a}{a+3} + \frac{3}{a-2}$

5) $\frac{2a}{2a(5-a)} \cdot \frac{(a-4)(a-5)}{8}$

6) $\frac{35(v+1)}{7} \cdot \frac{5(v+6)}{25(v+1)}$

7) $\frac{p+2}{p^2-8p-20} \div \frac{p-7}{5}$

8) $\frac{9m}{9m^2-90m} \div \frac{1}{7m}$

Solve each equation. Remember to check for extraneous solutions.

9) $\frac{1}{v^2+5v+6} = \frac{4}{v^2+5v+6} - \frac{1}{v+3}$

10) $\frac{1}{p-4} - \frac{1}{p^2-4p} = \frac{4}{p^2-4p}$