Secondary Math 3   Name_____

HW 9-3 Solving Rational Equations   Period____

Solve each equation. Remember to check for extraneous solutions.

1) $\dfrac{4}{(x+2)(x-4)} = \dfrac{1}{x+2} - \dfrac{1}{(x+2)(x-4)}$

2) $\dfrac{1}{x} = \dfrac{1}{x(x+3)} + \dfrac{4}{x+3}$

3) $\dfrac{2p+2}{p(p-3)} = \dfrac{1}{p-3} - \dfrac{p+1}{p(p-3)}$

4) $\dfrac{4}{x-3} = \dfrac{x+5}{(x-3)(x-4)} - \dfrac{3}{x-4}$

5) $\dfrac{1}{v^2-v} + \dfrac{2}{v} = \dfrac{6}{v-1}$

6) $\dfrac{1}{k^2-3k} + \dfrac{5}{k} = \dfrac{2}{k}$

7) $\dfrac{5}{n} = \dfrac{1}{n} + \dfrac{2n+4}{n^2-5n}$

8) $\dfrac{1}{p} = \dfrac{1}{p-3} + \dfrac{2p+6}{p^2-3p}$

9) $\dfrac{5}{n^2-9n+18} = \dfrac{1}{n-6} - \dfrac{3}{n^2-9n+18}$

10) $\dfrac{1}{x-5} - \dfrac{4x-12}{x^2+x-30} = \dfrac{1}{x+6}$

11) $\dfrac{2}{k+1} + \dfrac{1}{k^2-2k-3} = \dfrac{1}{k-3}$

12) $\dfrac{1}{x-3} + \dfrac{1}{x-1} = \dfrac{3x+3}{x^2-4x+3}$