Math-3A Name_____ ID: 1

SM3-A HW #12-8 (Solve Rational Equations)

Date_____ Period____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{1}{3} = \frac{1}{n} + \frac{n+3}{n}$

2) $\frac{3n-18}{n} = \frac{1}{n} + 1$

3) $\frac{4}{5n^2} + \frac{3}{5n} = \frac{3}{n}$

4) $\frac{1}{2a} = \frac{5}{4} + \frac{1}{a}$

5) $\frac{6}{x} = 1 - \frac{1}{x}$

6) $\frac{m-6}{3m^2} + \frac{m-6}{m^2} = \frac{m+2}{3m^2}$

7) $\frac{5}{2k} = \frac{1}{k^2} - \frac{1}{2k}$

8) $\frac{1}{2x} + \frac{2}{x^2} = \frac{3x-6}{x^2}$

9) $1 = \frac{x-4}{5x} + \frac{1}{5x}$

10) $\frac{1}{m} = 1 + \frac{1}{6m}$

11) $\frac{3}{n+1} = \frac{1}{n+1} + 1$

12) $\frac{2}{x-3} = 1 + \frac{1}{x-3}$

13) $\frac{v+2}{v+5} = \frac{1}{v+5} - \frac{v-5}{v^2+10v+25}$

14) $1 - \frac{1}{n^2+2n} = \frac{2}{n^2+2n}$

15) $\frac{3}{m} + \frac{3m-9}{m^2-4m} = 1$

16) $\frac{4}{n^2+12n+36} = 5 - \frac{1}{n^2+12n+36}$