11.8

Name_____

Solving Rational Equations 1

Solve each equation. Remember to check for extraneous solutions.

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

2) $\frac{1}{n} = \frac{1}{5n} - \frac{n-1}{5n}$

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

4) $\frac{4}{n^2} = \frac{5}{n} - \frac{1}{n^2}$

5) $\frac{3n+15}{4n^2} = \frac{1}{n^2} - \frac{n-3}{4n^2}$

6) $\frac{1}{2n^2} + \frac{5}{2n} = \frac{n-2}{n^2}$

7) $\frac{x-6}{x} = \frac{x+4}{x} + 1$

8) $\frac{1}{2n} + \frac{1}{4n^2} = \frac{1}{4n}$

9) $\frac{6b+18}{b^2} + \frac{1}{b} = \frac{3}{b}$

10) $\frac{1}{2x} - \frac{x-1}{2x^2} = \frac{3}{x}$

Solve each equation. Remember to check for extraneous solutions.

11) $\frac{k+4}{4}+\frac{k-1}{4}=\frac{k+4}{4k}$

12) $\frac{1}{2m^2}=\frac{1}{m}-\frac{1}{2}$

13) $\frac{n-6}{n^2}-\frac{12}{n}=\frac{-6}{2n}$

14) $\frac{24x+48}{x^2}+\frac{x-6}{2x^2}=\frac{1}{x^2}$

15) $\frac{k^2+2k-8}{3k^3}=\frac{1}{3k^2}+\frac{1}{k^2}$

16) $\frac{k}{3}-\frac{1}{3k}=\frac{1}{k}$

17) $\frac{x-4}{6x}+\frac{x^2-3x-10}{6x}=\frac{x-1}{6}$

18) $\frac{1}{x^2}=\frac{x-1}{x}+\frac{1}{x}$