Math 3A Name_____

6.3 Solving Rational Equations

Period____

Solve each equation. Remember to check for extraneous solutions.

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

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

3) $1 = \frac{1}{n} + \frac{6n-10}{n}$

4) $\frac{1}{2b} = \frac{3}{b} + \frac{b-6}{b}$

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

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

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

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

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

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

11) $\frac{1}{x^2} = \frac{x + 4}{x} - 4$

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

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

14) $\frac{b^2 + 2b - 24}{b^2 - 6b} + \frac{4}{b - 6} = 1$

15) $\frac{1}{n + 6} + \frac{n + 1}{n + 6} = 6n + 12$

16) $\frac{1}{x^2 - 2x} = \frac{x - 3}{x^2 - 2x} + \frac{5x}{x - 2}$