Solving Rational Equations EASY/MED Name_____

Algebra 1.5

Date_____

Solve each equation. Remember to check for extraneous solutions.

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

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

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

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

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

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

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

8) $\frac{k+6}{2k} = \frac{2}{3} + \frac{4}{3}$

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

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

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

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

13) $\frac{1}{k+4} - \frac{1}{k^2+4k} = \frac{4}{k^2+4k}$

14) $\frac{n-7}{n^2-7n+6} = \frac{n+5}{n^2-7n+6} + \frac{1}{n-6}$

15) $\frac{3}{7n} = 1 + \frac{1}{7n}$

16) $\frac{2}{x+4} + \frac{1}{3} = 1$

17) $1 + \frac{1}{x+4} = \frac{8}{x+4}$

18) $1 - \frac{1}{6x} = \frac{5}{6x}$

19) $\frac{4r-32}{3r+4}=\frac{r+4}{6r+8}+1$

20) $\frac{3}{p-6}=\frac{8p-8}{p^2-6p}-\frac{1}{p^2-6p}$

21) $\frac{2}{m-2}=\frac{1}{m-2}-1$

22) $\frac{8}{5a-4}=\frac{a+4}{5a^2+21a-20}+\frac{1}{5a-4}$

23) $\frac{3v+6}{v^2+10v+25}+\frac{1}{v^2+10v+25}=\frac{8}{v+5}$

24) $\frac{8}{n^2+5n}=\frac{1}{n}+\frac{1}{n^2+5n}$