Math 2   Name_____

Unit 5.7 Solve Equations with Rational Expressions Practice   Period____

Solve each equation. Remember to check for extraneous solutions.

1) $1 - \dfrac{n+6}{n} = \dfrac{n+2}{n}$

2) $\dfrac{5}{3} + \dfrac{1}{3} = \dfrac{b-1}{3b}$

3) $\dfrac{v+3}{v} + \dfrac{1}{6v} = \dfrac{1}{v}$

4) $\dfrac{1}{6x} + \dfrac{1}{3} = \dfrac{1}{6}$

5) $\dfrac{3}{b} = \dfrac{5b-30}{b} + \dfrac{1}{b}$

6) $x - 4 - \dfrac{1}{2x} = \dfrac{x^2 - x - 2}{x}$

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

8) $n + \dfrac{n-3}{n} = \dfrac{1}{2}$

9) $\dfrac{b+2}{b} = \dfrac{b^2 - 2b - 24}{3b} + \dfrac{2b+2}{3b}$

10) $\dfrac{k^2 - 25}{3k} = \dfrac{k}{3} - \dfrac{k-1}{k}$

11) $\dfrac{2}{a^2 + a - 20} = \dfrac{6}{a - 4} - \dfrac{1}{a^2 + a - 20}$

12) $\dfrac{1}{k} + \dfrac{1}{k + 5} = \dfrac{3}{k}$

13) $\dfrac{6}{k^2 - 2k} - \dfrac{4}{k} = \dfrac{1}{k - 2}$

14) $1 + \dfrac{n + 3}{n - 2} = \dfrac{n - 3}{n - 2}$

15) $\dfrac{1}{2k} = 1 - \dfrac{3}{k}$

16) $1 + \dfrac{x^2 - 2x - 3}{x^2 - 5x} = \dfrac{6}{x^2 - 5x}$

17) $n + 4 = \dfrac{n + 3}{5n} + \dfrac{1}{5n}$

18) $\dfrac{x - 6}{3} = \dfrac{x^2 - 4x}{3x + 9} + \dfrac{1}{3x + 9}$

19) $\dfrac{r - 4}{3r} + \dfrac{5r^2 - 35r + 60}{3r} = 5r - 20$

20) $\dfrac{r + 4}{3r - 12} = \dfrac{r + 1}{r^2 - 16} + \dfrac{r}{3r - 12}$