Kuta Software - Infinite Algebra 1

Name_____

Solving Rational Equations 1

Date_____ Period_____

Solve each equation. Remember to check for extraneous solutions.

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

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

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

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

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

11) $\dfrac{1}{b^2 - 7b + 10} + \dfrac{1}{b - 2} = \dfrac{2}{b^2 - 7b + 10}$

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

15) $\dfrac{1}{5k^2 + 2k} - \dfrac{6}{5k + 2} = \dfrac{6}{5k^2 + 2k}$

16) $\dfrac{6}{n^2 - 6n + 8} = \dfrac{1}{n^2 - 6n + 8} - \dfrac{1}{n - 4}$

19) $\dfrac{v - 3}{v^2 + 3v} = \dfrac{1}{v + 3} - \dfrac{v - 5}{v^2 + 3v}$

Name_____

Solving Rational Equations 2

Date_____ Period_____

Solve each equation. Remember to check for extraneous solutions.

1) $\dfrac{k+4}{4} + \dfrac{k-1}{4} = \dfrac{k+4}{4k}$

2) $\dfrac{1}{2m^2} = \dfrac{1}{m} - \dfrac{1}{2}$

5) $\dfrac{k^2 + 2k - 8}{3k^3} = \dfrac{1}{3k^2} + \dfrac{1}{k^2}$

6) $\dfrac{k}{3} - \dfrac{1}{3k} = \dfrac{1}{k}$

9) $\dfrac{1}{r+3} = \dfrac{r+4}{r-2} + \dfrac{6}{r-2}$

10) $\dfrac{a^2 - 4a - 12}{a^2 - 10a + 25} = \dfrac{6}{a-5} + \dfrac{a-3}{a-5}$

13) $\dfrac{1}{k} = 5 + \dfrac{1}{k^2 + k}$

14) $\dfrac{1}{p^2 - 4p} + 1 = \dfrac{p-6}{p}$