Kuta Software - Infinite Algebra 2 8-6B Name_____

Solving Rational Equations

Date_____ Period____

Solve each equation. Remember to check for extraneous solutions.

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

$\left\{\frac{1}{6}\right\}$

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

$\left\{-\frac{1}{2}\right\}$

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

{5}

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

{4}

5) $\frac{1}{x} = \frac{6}{5x} + 1$

$\left\{-\frac{1}{5}\right\}$

6) $\frac{1}{6x^2} = \frac{1}{2x} + \frac{7}{6x^2}$

{–2}

7) $\frac{1}{v} + \frac{3v+12}{v^2-5v} = \frac{7v-56}{v^2-5v}$

{21}

26/5

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

{5}

9) $\frac{1}{n-8} - 1 = \frac{7}{n-8}$

{2}

10) $\frac{1}{r-2} + \frac{1}{r^2-7r+10} = \frac{6}{r-2}$

$\left\{\frac{26}{5}\right\}$