

## Rational Equations Review

Date \_\_\_\_\_ Period \_\_\_\_\_

**Solve each equation. Remember to check for extraneous solutions.**

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

2)  $\frac{1}{a^2} + \frac{1}{6a} = \frac{a+4}{3a^2}$

3)  $\frac{3}{x-4} = \frac{5}{x-4} + \frac{x+1}{x^2-4x}$

4)  $\frac{5x-15}{6x^2} + \frac{x^2+2x+1}{6x^2} = \frac{2}{6x}$

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

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

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

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

**Solve each proportion.**

$$9) \frac{7}{x-5} = \frac{10}{x+8}$$

$$10) \frac{3}{v} = \frac{4}{2}$$

$$11) \frac{r-9}{5} = \frac{r}{2}$$

$$12) \frac{n}{n-5} = \frac{2}{n+9}$$

$$13) \frac{6}{x+9} = \frac{x+4}{x+9}$$

$$14) \frac{4}{x+3} = \frac{10}{x+6}$$

$$15) -\frac{4}{b-7} = \frac{b}{3}$$

$$16) 3 = \frac{b+3}{8}$$