Algebra 2 Name_____



# Rational Equations -- Quadratics

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

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

2) $\frac{v^2-9v+20}{2v^3} + \frac{1}{4v^2} = \frac{v-3}{4v^2}$

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

4) $r - 4 = \frac{r^2-7r+10}{r} - \frac{1}{r}$

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

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

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

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

9) $\frac{2n^2+18n+40}{n+3} - 1 = \frac{1}{n+3}$

10) $\frac{3}{v^2-10v+24} = \frac{v^2+2v-3}{v^2-10v+24} - \frac{1}{v-4}$

# Answers to Rational Equations -- Quadratics

1) $\{-2\}$

2) $\{10, 4\}$

3) $\left\{-\frac{1}{4}\right\}$

4) $\{3\}$

5) $\left\{-1, -\frac{11}{5}\right\}$

6) $\left\{-\frac{7}{2}\right\}$

7) $\{-4\}$

8) $\{-9\}$

9) $\left\{-4, -\frac{9}{2}\right\}$

10) $\{0, -1\}$