

### Solving Rational Equations Homework

Solve the following rational equations. Do not forget to check for extraneous solutions. Give exact answers.

1.  $7 = \frac{1}{w} - 4$

2.  $\frac{1}{x} = \frac{x}{6} - \frac{5}{6}$

3.  $k + \frac{1}{k} = 2$

4.  $\frac{x}{x-3} + \frac{x}{2} = \frac{6x}{2x-6}$

5.  $\frac{14}{z} = 9 - z$

6.  $\frac{4x}{x-3} + \frac{x}{2} = \frac{12}{x-3}$

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

8.  $4 + \frac{1}{x} = \frac{10}{2x}$

9.  $\frac{1}{a-7} = 3$