Name: _____ Date: _____

Learning Goal 6.2	Solving equations, identifying any non-permissible values and extraneous roots.

Assignment

Solve the following rational equations. State any non – permissible values and/or extraneous roots.

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

$k = \frac{1}{6}$

b. $\frac{1}{n^2} + \frac{1}{n} = \frac{1}{2n^2}$

$n = -\frac{1}{2}$

c. $\frac{1}{6b^2} + \frac{1}{6b} = \frac{1}{b^2}$

$b = 5$

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

$b = 4$

e. $\frac{1}{x} = \frac{6}{5x} + 1$

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

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

$x = -2$

g. $\frac{3}{m^2} = \frac{m-4}{3m^2} + \frac{2}{3m^2}$

$m = 11$

h. $\frac{1}{n} = \frac{1}{5n} - \frac{n-1}{5n}$

$n = -3$