

Name: _____

NS4 Math

Homework: Solving 2nd degree equations

Solve each of the following equations.

a) $\frac{3}{2}x - \frac{1}{3} = \frac{3}{4}x + \frac{1}{2}$
 $\left\{ \frac{10}{9} \right\}$

b) $2x^2 - x = 10$
 $\left\{ -2, \frac{5}{2} \right\}$

c) $(2x+1)^2 = 9$
 $\left\{ -2, 1 \right\}$

d) $x^3 + 2x^2 - 3x = 0$
 $\left\{ -3, 0, 1 \right\}$

e) $(x+5)(2x-3) = 0$
 $\left\{ -5, \frac{3}{2} \right\}$

f) $x^2 + 3x - 54 = 0$
 $\left\{ -9, 6 \right\}$

g) $10n^2 - 37n - 36 = 0$
 $\left\{ -\frac{4}{5}, \frac{9}{2} \right\}$

h) $8p^2 - 8p = 2p - 3$
 $\left\{ \frac{1}{2}, \frac{3}{4} \right\}$

i) $117k^2 - 36 = 13 - 4k^2$
 $\left\{ -\frac{7}{11}, \frac{7}{11} \right\}$

j) $2(n-5)^2 = 82 - n^2$
 $\left\{ -\frac{4}{3}, 8 \right\}$

k) $27w^2 - 8w + 18w^3 - 12 = 0$
 $\left\{ -\frac{3}{2}, -\frac{2}{3}, \frac{2}{3} \right\}$

l) $(2j+3)(3j-5) - 6(j^2+j-4) = -5$
 $\left\{ 2 \right\}$