Name: _____ Class: _____ Date: _____

Solving Equations with Special Solutions

Type of Solution	What You See	Examples	What This Means

Example 1: *Solve each equation. Show your work.*

a) $2(6x-9)=3(4x-6)$

b) $-(4x-6)=2(4-2x)$

c) $3(2x-4)=-6(x+2)$

d) $-5(2x-2)=\frac{2}{3}(3x-3)$

Try: *Solve each equation. Show your work.*

a) $\frac{1}{2}(4x-8) = -(4x-8)$

b) $2(3x-3) = \frac{2}{3}(9x-6)$

c) $4(2x+5) - 8(x+2) = 4$

d) $\frac{1}{5}(10-5x) = 2x+3x+2$

Example 2: *For each problem, determine whether there is one solution, no solution, or infinite solutions. Show or explain how you know.*

a) Five times the sum of a number and one is equal to the product of five and the number.

b) The sum of a number and twice the number equals four times the number less six.

Try: *For each problem, determine whether there is one solution, no solution, or infinite solutions. Show or explain how you know.*

a) Three more than the product of two and a number is the same as two times the number increased by 3.

b) Six times the sum of a number and five equals thirty.