Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_

**5.0 Solving Multi-Step Equations with One/None/Infinitely Many Solutions\_Classwork**

*Objective: Solve multistep equations. CCSS: 8.EE.7b (From Lesson 1.2)*

*HW: 5.0 Homework (handout)*

**EXAMPLE PROBLEMS: Solve the following equations.**

|  |  |
| --- | --- |
| EX. 1: 5x – 8x + 13 = -20 | EX 2: 2(1 – 5x) + 4 = -8  |
| EX 3: –x - 5x – 14 = 3x – 59 | EX 4: -9x + 30 = 2(x – 1) + 32 |

**EXAMPLE PROBLEMS 5 - 7: Solve the following equations with one, none, or infinitely many solutions.**

|  |  |  |
| --- | --- | --- |
| One Solution 7x – 3 = 5x + 5Idenifying an equation with one solution:\_\_\_\_\_\_\_\_\_\_\_\_\_ coefficients | No Solutions 7x – 3 = 7x + 5Idenifying an equation with no solutions:\_\_\_\_\_\_\_\_\_\_\_\_\_ coefficients\_\_\_\_\_\_\_\_\_\_\_\_\_ constant | Infinitely Many Solutions 7x – 3 = -(3 – 7x)Idenifying an equation with many solutions:\_\_\_\_\_\_\_\_\_\_\_\_\_ coefficients\_\_\_\_\_\_\_\_\_\_\_\_\_ constant |

**PRACTICE: Solve the following equations.**

|  |  |
| --- | --- |
| 1. 4x – 7 – 8x = 9
 | 1. 12 + 4(6c – 1) = 20
 |
| 1. 3(5p – 3) = 5(p – 1)
 | 1. 3(6x – 4) = -2(1 – 9x) -10
 |
| 1. $\frac{1}{2}\left(8x-4\right)=4(x-7)$
 | 1. 3(x – 4) = -2(4 – x)
 |

Summary

WITHOUT SOLVING COMPLETELY, IDENTIFY THE NUMBER OF SOLUTIONS FOR EACH EQUATION.

|  |  |  |
| --- | --- | --- |
| 1. 6x – 2 = 2(3x – 1)
 | 1. 4(8x – 4) = 16(2x + 1)
 | 1. 9x – 24 = 6(3x – 4)
 |