Notes: Complex Equations Oct. 19

Directions: *Solve each equation and then circle its solution type (one solution, no solution, or infinite many solutions).*

1. $2(4x + 4) = 10x$ $8x + 8 = 10x$ $-8x \quad -8x$ $\frac{8}{2} = \frac{2x}{2}$ $x = 4$	No Solution Infinite Many Solutions **One Solution**	2. $4x + 5 = 6x - 9$ $-6x \quad -6x$ $-2x + 5 = -9$ $-5 \quad -5$ $\frac{-2x}{-2} = \frac{-14}{-2}$ $x = 7$	No Solution Infinite Many Solutions **One Solution**
3. $5x + 4x - 4 = 9x$ $9x - 4 = 9x$ $-9x \quad -9x$ $-4 \neq 0$	**No Solution** Infinite Many Solutions One Solution	4. $x + 4 = -9 + x$ $-x \quad -x$ $4 \neq -9$	**No Solution** Infinite Many Solutions One Solution
5. $7(2x + 3) = 28$ $14x + 21 = 28$ $-21 \quad -21$ $\frac{14x}{14} = \frac{7}{14}$ $x = \frac{1}{2}$	No Solution Infinite Many Solutions **One Solution**	6. $-5x + 4 = 3 - 5x + 1$ $-5x + 4 = 4 - 5x$ (same same) infinite many solutions	No Solution **Infinite Many Solutions** One Solution
7. $2x + 3 = 2(x - 8)$ $2x + 3 = 2x - 16$ $-2x \quad -2x$ $3 \neq -16$	**No Solution** Infinite Many Solutions One Solution	8. $12x + 22 = 2(6x + 11)$ $12x + 22 = 12x + 22$ same	No Solution **Infinite Many Solutions** One Solution
9. $-10x + 1 + 8x = -11$ $-2x + 1 = -11$ $-1 \quad -1$ $\frac{-2x}{-2} = \frac{-12}{-2}$ $x = 6$	No Solution Infinite Many Solutions **One Solution**	10. $15x - 12x - 5 = 3x + 7$ $3x - 5 = 3x + 7$ $-3x \quad -3x$ $-5 \neq 7$	**No Solution** Infinite Many Solutions One Solution