

Name: _____ Hour: _____ Date: _____

NOTES: Sections 3.4 – Solving Equations with Variables on Both Sides

Goals: #1 – I can solve equations that have variables on both sides.



Homework: Section 3.3 – 3.4 Worksheet

Warm Up:

1. Solve the following equations.

a. $5(6 + j) = 45$

b. $5w + 2w - 7 = 70$

c. $\frac{3}{4}(x + 6) = 12$

Exploration #1:

1. Combine all the like terms and simplify the expression:

a. $3x^2 + 4 - x - 2x + 5x^3$

b. $3(x + 2) + 4x - x^2$

Notes:

Solving linear equations may require more than _____ step.

Some equations have variables on _____ sides. To solve these equations, we are going to _____ all our variable terms on one side of the equation.

Linear equations have _____ solution, _____ solutions, OR _____ solution.

Example:

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Example #1: Solve the following equations.

1. $7x + 19 = -2x + 55$

2. $80 - 9y = 6y$

You practice: Solve the following equations.

1. $5y - 2 = y + 10$

2. $-6x + 4 = -8x$

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Example #2: Solve the following equations.

1. $3x - 10 + 4x = 5x - 7$

2. $3(x + 2) = 3x + 6$

3. $3(x + 2) = 2x + 4$

You practice: Solve the following equations.

1. $5x - 3x + 4 = 3x + 8$

2. $2(x + 4) = 2x - 8$

CHALLENGE: Solve the equation: $7 - (-4t) = 4t - 14 - 21t$