

# Agenda

## Homework:

- Variables on both sides Worksheet

- Materials:
  - Notebook

## DO NOW

- Complete the following problems on your DESK:

1. SIMPLIFY

$$-3(2x - 5)$$

2. What is the decimal form of  $\frac{3}{8}$



# Set Up Cornell Notes

- **Topic:** Equations with Variables on Both Sides
- **EQ:** How do you solve equations with Variables on BOTH sides of the equal sign?

Be sure to update your table of contents

# How do you solve equations with variables on both sides?



1. Get rid of the variables on the side with the smaller coefficient by **ADDING** or **SUBTRACTING**
2. Simplify both sides of the equations if necessary (distributive property and/or combining like terms)
3. Solve the remaining One/Two Step Equation



# Example: Variable on Both Sides

STEP 1:  
Which side  
has less x's?

$$3x + 2 = 1x - 4$$

$$\begin{array}{r} -1x \\ \hline \end{array}$$

$$\begin{array}{r} 2x + 2 \\ -2 \\ \hline \end{array}$$

$$\begin{array}{r} 2x \\ \hline 2 \end{array}$$

$$x = -3$$

STEP 2 – get rid of those x's

STEP 3 - simplify

STEP 4 –get rid of # farthest away

STEP 5 – simplify

STEP 6 – divide

STEP 7 – simplify



Solve the following

$$4x - 1 = x + 8$$

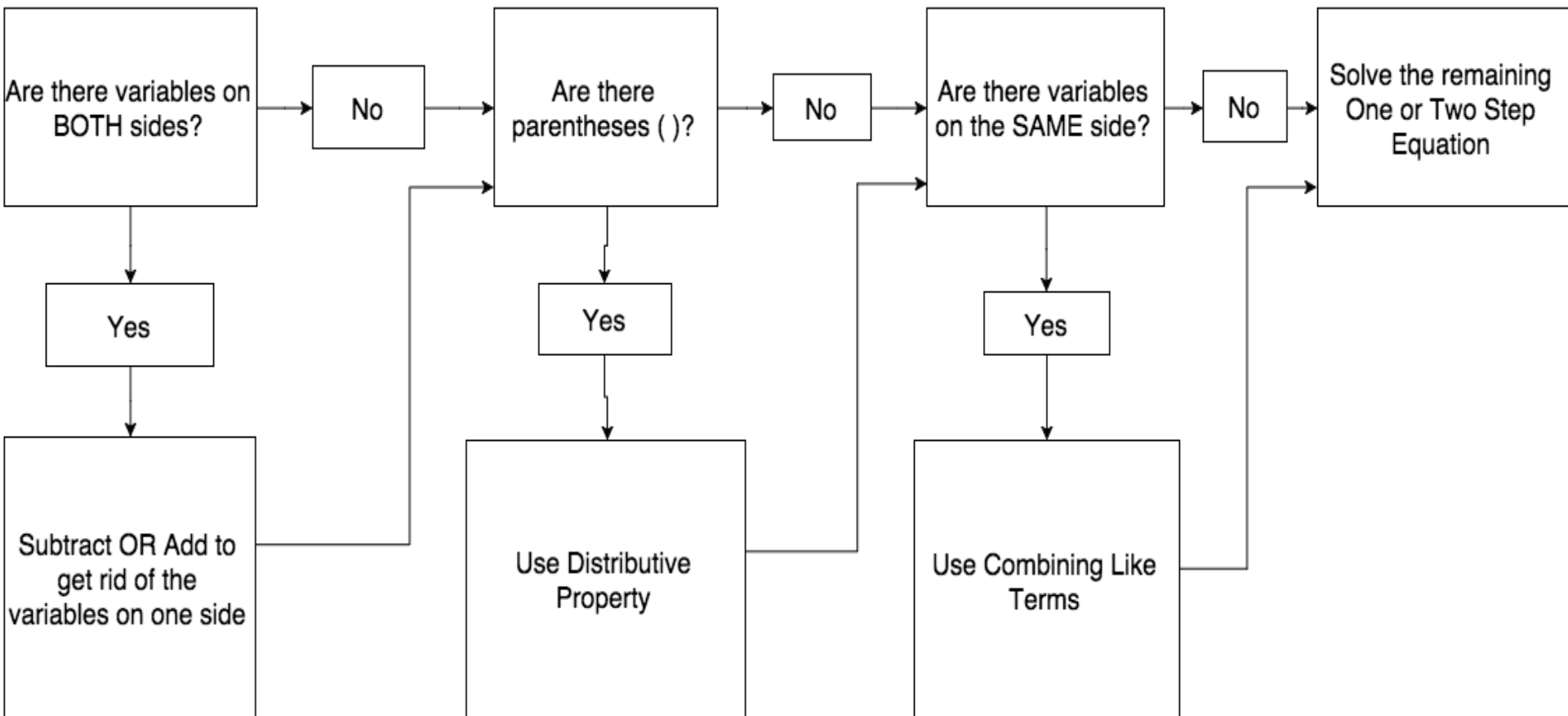
$$x - 7 = 2x + 3$$

$$2x + 5 = -3x - 10$$

$$6 - x = 3x - 6$$

# Solving Equations Flow Map

# Solving Equations Flow Map



# MINI QUIZ

- Solve the DO NOW Problem on folder paper:

$$6x + 5 = x - 15$$