

Name: \_\_\_\_\_

**Student's Notes**  
**Solving Equations with Variables on Both Sides**

Real life Example #1:

(1) The equation for finding the number of years it takes after 1928 for the men and women's teams to be equal is:  $136.8 - .280y = 111.8 - .136y$ .

What is different about this equation than others we have solved in the past? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(2) In order to solve this equation what must you be able to do? In other words, what is our learning objective for today based on the video you just viewed?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(3) The two basic things to do when solving equations with variables on both sides of the equal sign are:

1. \_\_\_\_\_

2. \_\_\_\_\_



Method Two

*(Work out steps below)*

$4x + 8 = 6x + 12$     **Step 1:** Use the addition property of equality to collect the variables on the \_\_\_\_\_ side \_\_\_\_\_ of the equation.

by \_\_\_\_\_ **Step 2:** Undo the addition of \_\_\_\_\_, it from both sides of \_\_\_\_\_ equation.  
 ↙ **Show this step**

by \_\_\_\_\_ **Step 3:** Undo the multiplication each side by the coefficient \_\_\_\_\_ of X, which is \_\_\_\_\_.  
 ↙ **Show this step**

X = \_\_\_\_\_

**Summary Statement:** When solving equations with variables on both sides of the equal sign you must **first**:

Use the \_\_\_\_\_ property of equality to collect variables on the \_\_\_\_\_ or the \_\_\_\_\_ side of the equal sign.