MFM2PI – *Unit 3: Linear Systems – Lesson 6*  Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Solving Linear Systems by Elimination – Day 2**

1. **Recall: Solving a Linear System by Elimination**

|  |  |  |
| --- | --- | --- |
| Solving a linear system by elimination is an algebraic method of finding the solution. By adding the whole first equation to the whole second equation, we eliminate one variable so that we can focus on solving for the other! We do this by identifying one variable in both equations that has the same coefficient, but with opposite signs! Then, we add the two equations together, solve for the first variable, and substitute into either equation to find the second variable. |  |  |

1. **Multiplying Equations in Order to Solve by Elimination**

Sometimes, when asked to solve a system of linear equations, the coefficients in front of our variables will not have the same value. Do not panic! In those cases, in order to solve a linear system by elimination, we will need to manipulate the equations to produce a coefficient that has the same value in both equations, but opposite signs.

We do this by ***multiplying*** ***every term*** in the chosen equation by the same integer (the integer could be either positive or negative!), which keeps the equation in balance.

Let’s practice this step during a worked example. *Solve the following linear system by elimination. Be sure to state your solution.*

**

**

1. **Practice Makes Perfect!**

*Solve the following linear systems by elimination. Be sure to state your solution.*

1. **  
   **
2. *  
   *
3. **

**

**HW: *Worksheet – “Did You Hear About …”***