Notes #6 –Systems using Elimination Day 2

Examples:

1.
$$\begin{cases} 3x + 5y = 10 \\ 5x + 7y = 10 \end{cases}$$
2.
$$\begin{cases} 15x + 3y = 9 \\ 10x + 7y = -4 \end{cases}$$

Try It!

a.
$$\begin{cases} 2x - 3y = -11 \\ 3x + 2y = 29 \end{cases}$$
 b.
$$\begin{cases} 5x + 7y = -1 \\ 4x - 2y = 22 \end{cases}$$

Examples:

3. The sum of two numbers is 18. The sum of the greater number and twice the smaller number is 25. Find the numbers.

4. Suppose a band at another school sells erasers for \$2 per package and pencils for \$5 per package. The band sells 220 packages in all and earns a total of \$695. Write a system of equations to find the number of each type of package sold.

Try It!

a. Grandma's Bakery sells single crust apple pies for \$6.99 and double crust cherry pies for \$10.99. The total number of pies sold on a busy Friday was thirty-six. If the amount collected for all the pies that day was \$331.64, how many of each type of pies was sold?

b. A promoter priced tickets to a concert as follows: \$17 when purchased in advance and \$20 when purchased at the door. The total number of tickets purchased was 514, and ticket sales totaled \$9,158. How many tickets were sold at the door?