Notes \#6 -Systems using Elimination Day 2

## Examples:

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

Try It!
a. $\quad\left\{\begin{array}{l}2 x-3 y=-11 \\ 3 x+2 y=29\end{array}\right.$
b. $\left\{\begin{array}{l}5 x+7 y=-1 \\ 4 x-2 y=22\end{array}\right.$

## 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.
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?
