Solving Linear Systems by Elimination Method

Sometimes the Substitution Method is awkward or tedious. Another way to solve systems of equations is to eliminate one variable. This is known as the ELIMINATION METHOD.

1. $2x + 3y = 8$
   $5x - 3y = -1$

- Look for _____ coefficients of either x or y.
- _____the equations together.
- _____for the remaining variable.
- Remember that the solution must be a _____ (____, ____).
- _____ this value into one of the _____equations.
- Solve for the _____ variable.
- Write your solution as a _____.

2. $5x + 2y = 6$
   $-3x - 4y = 2$

3. $3x + 6y = 12$
   $4x + 7y = 11$

→The solution to a system of equations is the _____ ____ _____.

Solving Linear Systems by Elimination Method

Sometimes the Substitution Method is awkward or tedious. Another way to solve systems of equations is to eliminate one variable. This is known as the ELIMINATION METHOD.

1. $2x + 3y = 8$
   $5x - 3y = -1$

- Look for ___opposite___ coefficients of either x or y.
  (You may need to multiply one or both equations!)
- ___Add___ the equations together.
  (This should ELIMINATE one variable…if not check your work!)
- ___Solve___ for the remaining variable.
- Remember that the solution must be a ___point___ (___x___, ___y___).
- ___Substitute___ this value into one of the ___original___ equations.
- Solve for the ___remaining___ variable.
- Write your solution as a ___point___.

2. $5x + 2y = 6$
   $-3x - 4y = 2$

3. $3x + 6y = 12$
   $4x + 7y = 11$

→The solution to a system of equations is the ___point___ ___of___ ___intersection___.