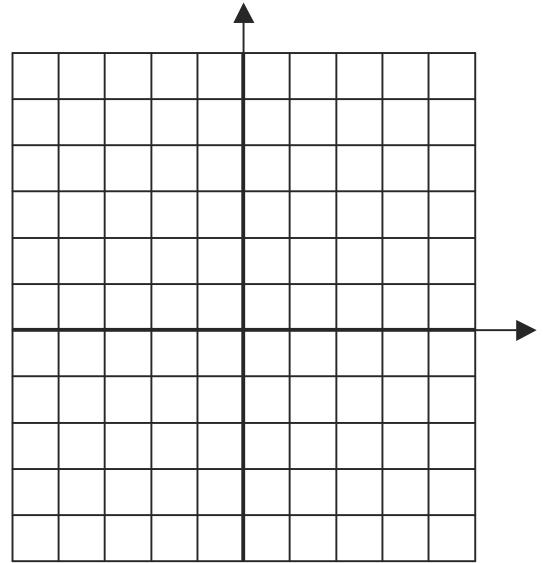# Worksheet #1 – Systems of Equations

1. Graph.

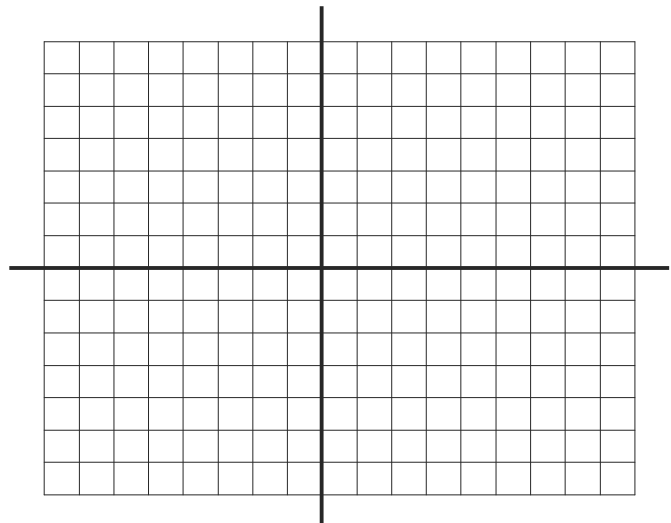   Equation 1: $x - y = 2$
   Equation 2: $x + y = 6$

2. Solve by Graphing.

   $y = x - 5$

   $2x + y = 4$

3. Solve this system of equations using the Substitution Method.

   $y = x - 6$
   $x + y = -2$

   $x + ($ $) = -2$

4. Solve this system of equations using substitution.

   $x - y = -3$

   $2x + 3y = -6$

   Get x alone: $x - y = -3$

   $2(\qquad\qquad) + 3y = -6$

5. Solve this system of equations using Elimination.

   $x + y = 8$

   $-x + 2y = 7$

6. Solve this system of equations using Elimination.

   $2w - 3z = -1$

   $3w + 4z = 24$

For Questions 7 – 18, solve showing all your work on a separate piece of paper.

Solve each system using elimination.

7. $y = -x + 3$
$y = x^2 + 1$

8. $y = x^2$
$y = x + 2$

9. $y = -x - 7$
$y = x^2 - 4x - 5$

10. $y = x^2 + 11$
$y = -12x$

11. $y = 5x - 20$
$y = x^2 - 5x + 5$

12. $y = x^2 - x - 90$
$y = x + 30$

Solve each system using substitution.

13. $y = x^2 - 2x - 6$
$y = 4x + 10$

14. $y = 3x - 20$
$y = -x^2 + 34$

15. $y = x^2 + 7x + 100$
$y + 10x = 30$

16. $-x^2 - x + 19 = y$
$x = y + 80$

17. $3x - y = -2$
$2x^2 = y$

18. $y = 3x^2 + 21x - 5$
$-10x + y = -1$