

Algebra II Chapter 3 Systems of Equations

Name: _____

Solve each system of equations using the graphing method. Use Desmos and screen shot your results. All of your Desmos problems need to be on one document and emailed to me.

1. $x + y = 6$
 $3x - 4y = 4$

2. $2x + 3y = 12$
 $2x - y = 4$

3. $3x - 8y = 4$
 $6x - 42 = 16y$

Solve the system of inequalities by graphing on Desmos.

4. $x > -2$
 $2y \geq 3x + 6$

5. $x > -1$
 $y < (2/3)x + 2$
 $3y > 4x$

Graph the following constraints. Then find the maximum and minimum values of the given function. Graph in Desmos indicate vertices and display solution.

6. $x \geq 1$
 $y \geq 2$
 $x + 2y \leq 9$

$f(x,y) = 2x - 3y$

7. $2x + 3y \geq 6$
 $3x - 2y \geq -4$
 $5x + y \leq 15$

$f(x,y) = x + 3y$

Solve the system using SUBSTITUTION. Show all of your work.

8. $y - 5x = 37$
 $2x - 3y = -20$

Solve the system using ELIMINATION. Show all of your work.

9. $2x + y = 4$
 $3x + 2y = 1$

Use either of the above two methods to solve the following systems.

10. $6x + 3y = 6$
 $8x + 5y = 12$

11. $2x - y = -1$
 $3x + 2y = 30$