

Name _____
Date _____

Advanced Algebra Unit #6 Linear Programming Assignment #3
Review of Solving Systems of Equations

Solve the following simultaneous equations by graphing:

1) $x - y = 2$
 $3x + y = 16$

 $-2x = 8$
 $x = -4$
 $(-4, -6)$

2) $x - y = -1$
 $x + y = 7$

 $2x = 6$
 $x = 3$
 $(3, 4)$

3) $x + y = 5$
 $x - y = -4$

 $2x = 1$
 $x = \frac{1}{2}$
 $y = 4.5$
 $(\frac{1}{2}, 4.5)$

4) $x + y = -2$
 $6x - y = 9$

 $7x = 7$
 $x = 1$
 $(1, -3)$

5) $3x - y = -2$
 $-2x + y = 3$

 $x = 1$
 $(1, 5)$

6) $5x - y = -1$
 $-2x + y = 5$

 $3x = -6$
 $x = -2$
 $(-2, -9)$

Solve the following systems by using the Elimination Method

1) $x + y = 5$
 $-x + y = 1$

 $2y = 6$
 $y = 3$
 $(2, 3)$

2) $x + y = 1$
 $2x + y = 5$

 $x + y = 1$
 $-2x - y = -5$

 $-x = -4$
 $x = 4$
 $(4, -3)$

3) $x + y = 10$
 $x - y = 6$

 $2x = 16$
 $x = 8$
 $(8, 2)$

4) $x + y = 14$
 $x - y = -4$

 $2x = 10$
 $x = 5$
 $(5, 9)$

5) $x + y = 9$
 $2x + y = 15$

 $2x + 2y = 18$
 $-2x - y = -15$

 $y = 3$
 $(6, 3)$

6) $x + y = 0$
 $2x + y = 1$

 $x + y = 0$
 $-2x - y = -1$

 $-x = -1$
 $x = 1$
 $(1, -1)$

7) $2x + 4y = 12$
 $x + 2y = 2$ (-2)

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

 $0 = 8$
 No solution

8) $x + y = 2$
 $2x + y = 7$

9) $x - 4y = 20$
 $2x + 5y = 1$

10) $9x - 5y = -30$
 $x + 3y = 18$

11) $x + 3y = -2$ (3)
 $-3x + y = 6$

$3x + 9y = -6$
 $-3x + y = 6$

 $10y = 0$
 $y = 0$
 $(-2, 0)$