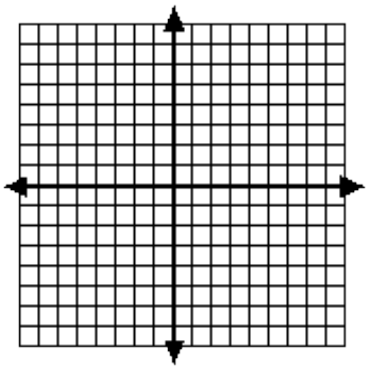
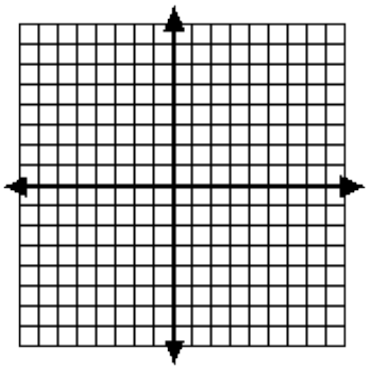
Algebra 2 **Name: _____**
Section 3.1 Worksheet #2

Graph each system of equations and describe the solution as consistent and independent, consistent and dependent, or inconsistent.

1. $y = x - 5$
$-2x + 2y = -10$



2. $2x - 5y = 10$
$3x + 3y = 15$



Solve each system of equations.

3. $7x + 2y = -1$
$4x - 3y = -13$

4. $4b - 2d = 5$
$-2b + d = 1$

5. $6w - 8v = 16$
$3w - 4v = 8$

6. $3x + 8y = -6$
$x - y = 9$

7. Samantha wants to buy pets for each of her five grandchildren. If she buys 3 poodles and 2 Siamese cats, she will spend $1200. If she buys 2 poodles and 3 Siamese cats, she will spend $1050. Find the cost of a poodle and the cost of a Siamese cat.

8. A hotel has 260 rooms, some singles and some doubles. The singles cost $35 and the doubles cost $60. Because of a math teachers' convention, all of the hotel rooms are occupied. The sales for this night are $14,000. How many of each type of room does the hotel have?

9. A collection of 31 nickels and dimes has a value of $2.65. How many nickels and how many dimes are there?

10. A total of $25,000 is invested in two funds paying 5% and 6% annual interest. The combined annual interest is $1400. How much of the $25,000 is invested in each type of fund?

11. Eric's farm picked a total of 390 pumpkins. Eric separated the pumpkins into two groups, small and large. He sold the small pumpkins for $3 and the large ones for $7. He sold all of the pumpkins for a total sales of $1970. How many small and large pumpkins did Eric originally pick?