Name: _____

January Choice Board (Algebra)

DUE: JANUARY _____

Directions: You must do 2 assignments from this page. Each is worth 50 points and together, add up to a test grade for the month. Answer them on a separate sheet of paper showing all work and attach the sheet to both assignments. You are to complete in class during the Warm-Up section when extra time is allotted.

Solve:

1. Lisa's school is selling tickets. The first day the school sold 4 senior citizen tickets and 5 student tickets for a total of $102. The school took in $126 on the second day by selling 7 senior citizen tickets and 5 student tickets. What is the price each of one senior citizen ticket and one student ticket?

2. A woman owns 21 pets. Each of her pets is either a cat or a bird. If the pets have a total of 76 legs, and assuming that none of the bird's legs are protruding from any of the cats' jaws, how many cats and how many birds does the woman own?

3. Two small pitchers and one large pitcher can hold 8 cups of water. One large pitcher minus one small pitcher constitutes 2 cups of water. How many cups of water can each pitcher hold?

4. If 4 apples and 2 oranges equals $1 and 2 apples and 3 orange equals $0.70, how much does each apple and each orange cost?

Find the point of intersection for the following:

$Y = 3x + 2$ and $y = 2x - 1$

$Y = x^2 - 1$ and $y = -x + 1$

$Y = x + 3$ and $y = 12 - 2x$

$Y = 3x + 3$ and $y = 12 + 3x$

$Y = -x + 1$ and $x = -3$

$-3x + y = 5$ and $2x - 3y = 6$

$Y = -5x$ and $y = 14 + 2x$

$Y = 4x - 14$ and $y = 10 - 4x$

$X + y = 3$ and $2x - y = 6$

$Y = -.25x + 3$ and $y = -1.5x - 2$

Explain how the slopes of parallel and perpendicular lines differ.

Find a parallel line to $y = 2x - 3$ and goes through the point (9, 12)

Find a parallel line to $y = -2x - 3$ and goes through the point (9, 12)

Find a perpendicular line to $y = 2x - 3$ and goes through the point (9, 12)

Find a perpendicular line to $y = -2x - 3$ and goes through the point (9, 12)

Graph the following using at least three point each:

$Y < 3x - 2$

$Y > 3x - 2$

$Y \leq 3x - 2$

$Y \geq 3x - 2$

What two things do you do distinguish the difference in the equations.

Please use two real life example that use $y = mx + b$. Explain how using the graph, table, and equation will help the process.

Do page 335 in the textbook

Graph the following using at least three point each:

$Y < 3x - 2$

$Y > 3x - 2$

$Y \leq 3x - 2$

$Y \geq 3x - 2$

What two things do you do distinguish the difference in the equations.

Write when you would use the system over any other system. Give an example to show.

1. Elimination
2. Substitution
3. Equal Values or y = y