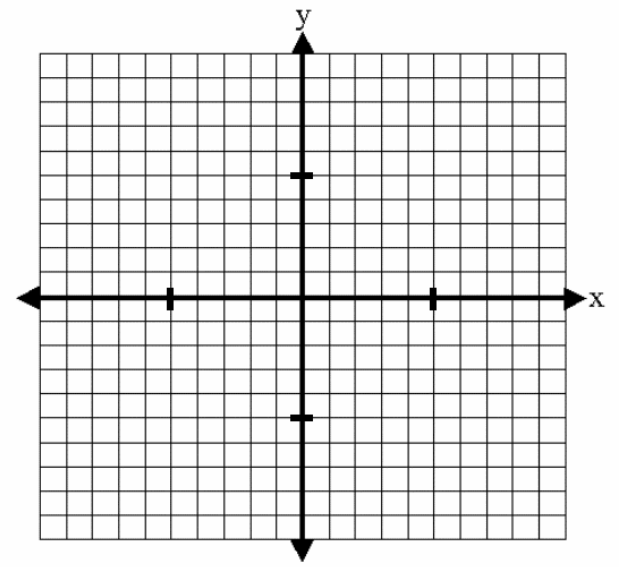
Algebra 2: Palka/Peto
Unit 3 Review System of Equations

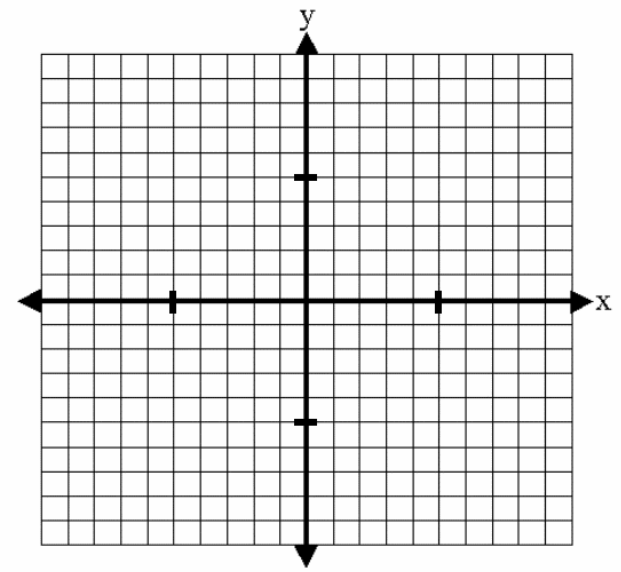
Name _____
Period _____Date_____

Solve each system of inequalities below.

1) $y > \frac{1}{4}x + 2$
$y < -3x - 2$

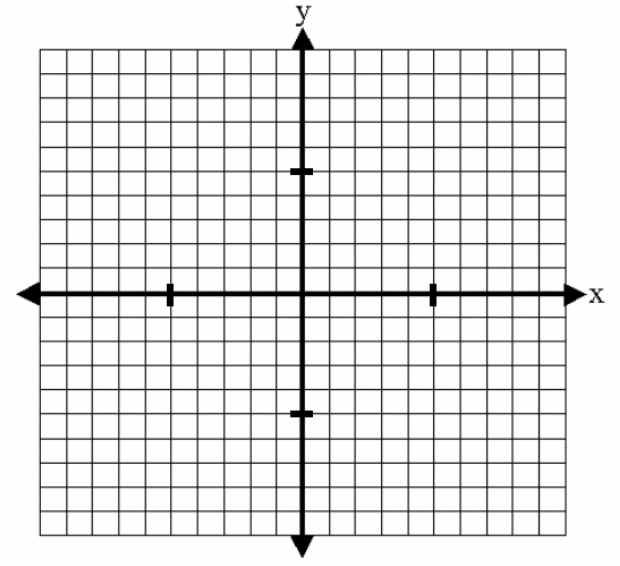
2) $y \geq -2$
$y \leq 3x + 1$

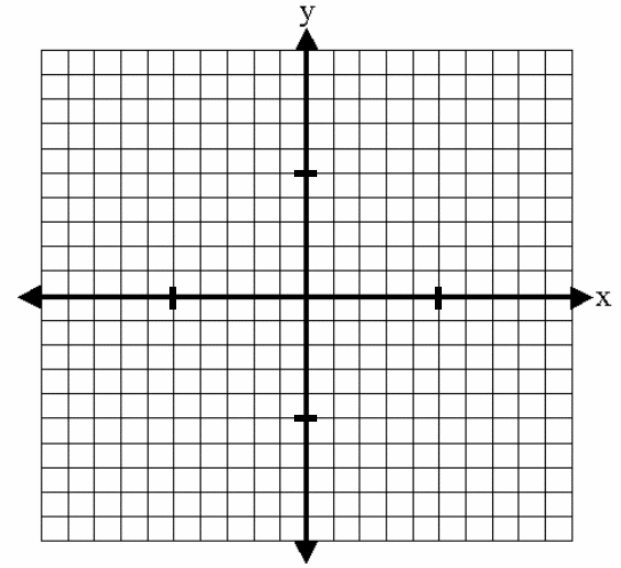




3) $x > -1$
$2x - y \leq 3$

4) $y \leq 3$
$-3x - 2y \leq -4$





Solve each system below ***algebraically***. (You may use either substitution or linear combination.)

5) $\begin{aligned} 2x + y &= 5 \\ 4x + 2y &= 10 \end{aligned}$

Solution: _____

6) $\begin{aligned} 3x + y &= 9 \\ -2x + y &= -1 \end{aligned}$

Solution: _____

7) $\begin{aligned} y &= -x + 8 \\ -4x + 2y &= -2 \end{aligned}$

Solution: _____

8) $\begin{aligned} -3x + 7y &= -1 \\ -2x + 5y &= 0 \end{aligned}$

Solution: _____

9) Sandy and Danny sell 300 tickets to the school dance. Boys pay $3 for their tickets, and girls pay $2 for their tickets. Sandy and Danny make $720. How many boys and girls bought tickets to the dance?
a) Define the variables.

b) Set-up and solve a system of equations

c) Answer the question

10) A fundraising dinner was held on two consecutive nights. On the first night, 100 adult tickets and 175 student tickets were sold for a total of $937.50. On the second night, 200 adult tickets were sold and 316 student tickets were sold for a total of $1790. What was the price for a student's ticket?
a) Define the variables.

b) Set-up and solve a system of equations

c) Answer the question