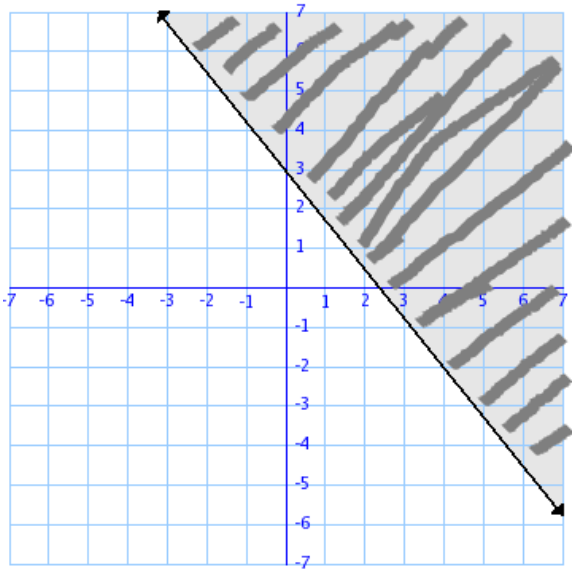
Systems of Inequalities Day 2

Fill in the blank with the word *dashed* or *solid*.

1. If the inequality has a < or > , then your graph will have a _____ line.

2. If the inequality has a ≤ or ≥, then your graph will have a _____ line.

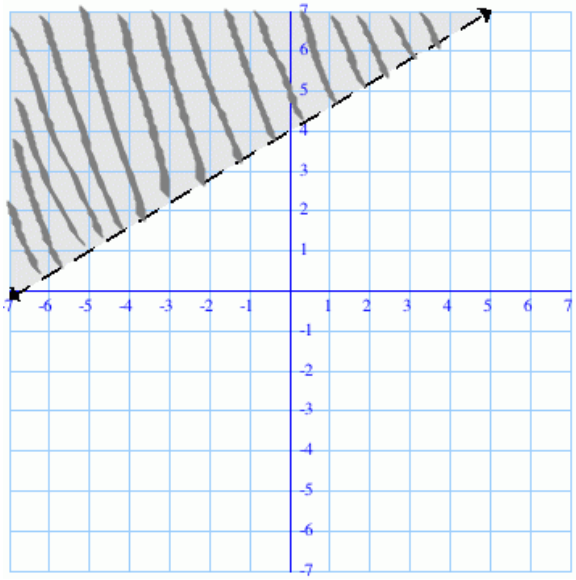
3.)
Circle the inequality that represents this graph.



A.) $y \le \frac{5}{4}x+3$ C.) $y \le \frac{-5}{4}x+3$

B.) $y \le \frac{5}{4}x-3$ D.) $y \le \frac{-5}{4}x-3$

4.)
State the inequality that represents this graph.



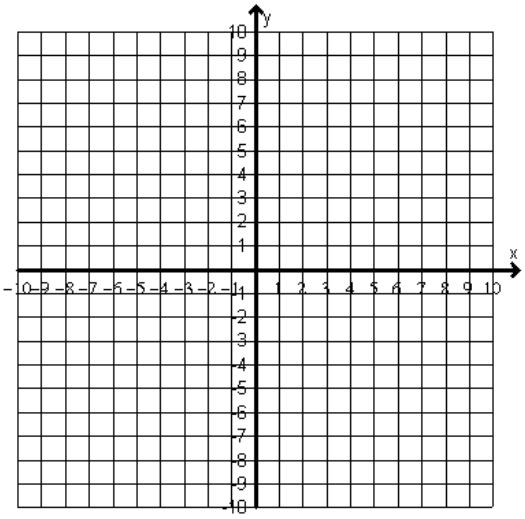
4.)_____

5.) Consider the system of linear inequalities

(a) Graph this system.

$y \ge 2x-7$

$y \le 2x+4$



(b) State the coordinates of one point that lies in *A*

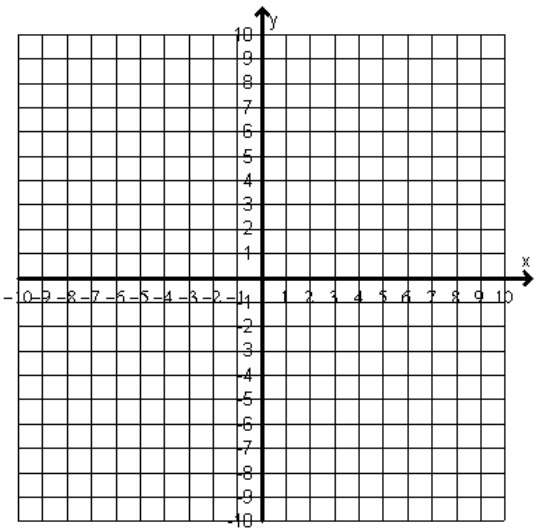
(c) State the coordinates of one point that does not lie in *A*.

6.) Consider the system of linear inequalities

(a) Graph this system.

$3x - 3y \leq 9$

$2x + 2y \leq 8$



(b) State the coordinates of one point that lies in *A*

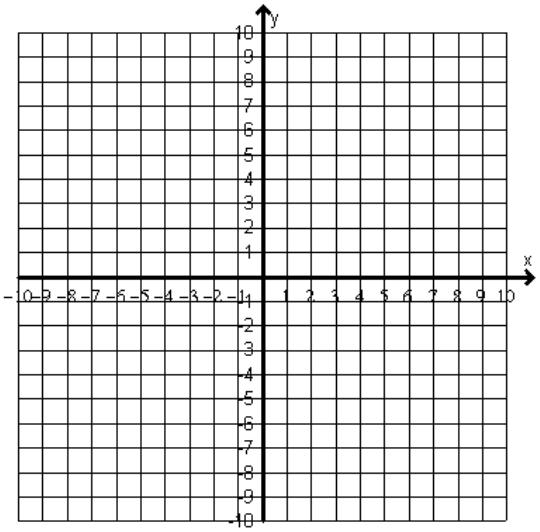
(c) State the coordinates of one point that does not lie in *A*.

7.) Consider the system of linear inequalities

(a) Graph this system.

$x \geq -2$

$y < 3$



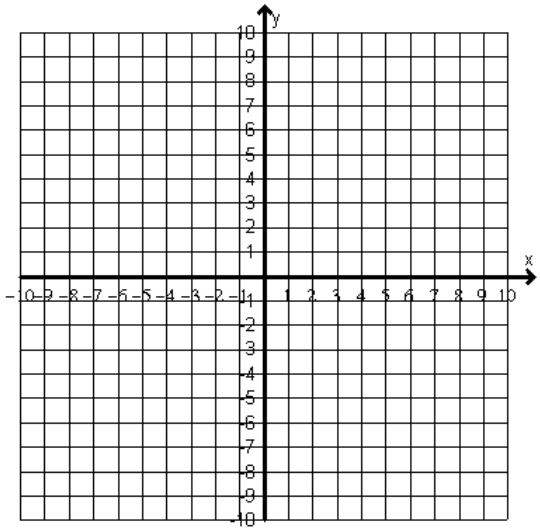
(b) State the coordinates of one point that lies in *A*

(c) State the coordinates of one point that does not lie in *A*.

8.) Consider the system of linear inequalities

(a) Graph this system.

$$\begin{cases} y \geq -x + 7 \\ 2x - y > 4 \end{cases}$$



(b) State the coordinates of one point that lies in *A*

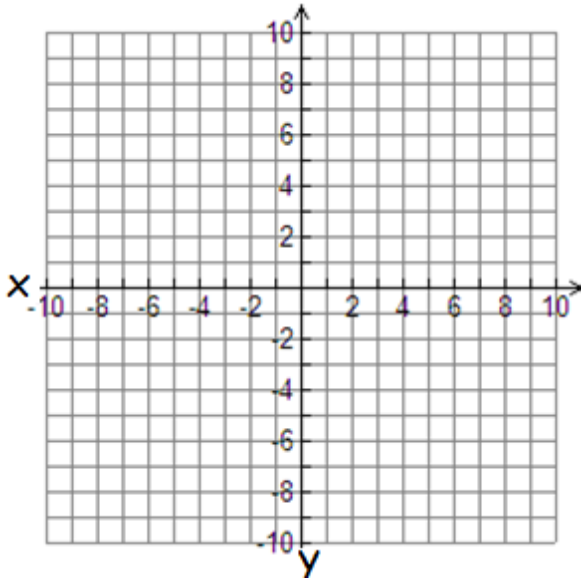
(c) State the coordinates of one point that does not lie in *A*.

Day 3

1.) Macys sells shoes and belts. The store makes a $5 profit on the sale of shoes (x), but loses $4 on the sale of each belt (y). The store wants to make a profit of at least $20 from the sale of shoes and belts.

They also sell t-shirts and sweaters. They make a $6 profit on the sale of t-shirts (x), and a profit of $4 on the sale of each pair of pants (y). The store wants to make a profit of at least $24 from the sale of t-shirts & sweaters.

Write & Graph the inequalities that describes both situations and choose a solution.



(__, __)