Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples
LINEAR INEQUALITY	
SOLUTION to a Linear Inequality	
EXAMPLE	**Determine which ordered pairs are solutions to the linear inequality below:** $2x - 3y < 15$

(2, 5)	(-1,- 7)	(3, -4)	(0, 0)

GRAPHING Linear Inequalities

Graphing linear inequalities is a way to show ALL the ordered pairs that are solutions! Steps to graph:

Step 1 **Put the inequality in _____- _____ form.**

Be sure to flip the inequality symbol if you multiply or divide by a negative number!

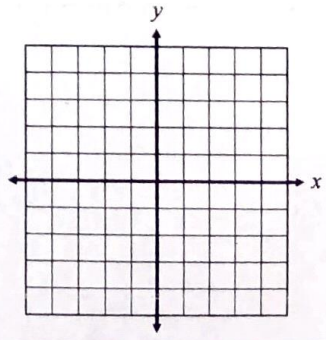
Step 2 **Graph the line!**

- Use a _____ line for ____ or ____ symbols.
- Use a _____ line for ____ or ____ symbols.

Step 3 **Shade!**

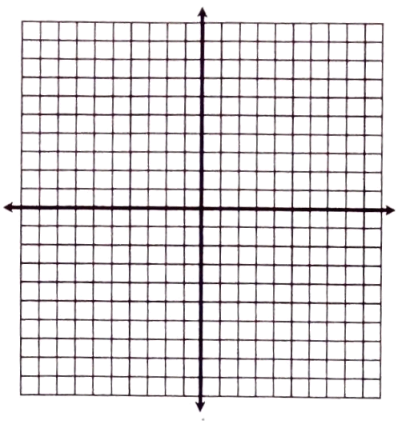
- Shade _____ the line for ____ or ____ symbols.
- Shade _____ the line for ____ or ____ symbols.

Example: $2x - 3y < 15$

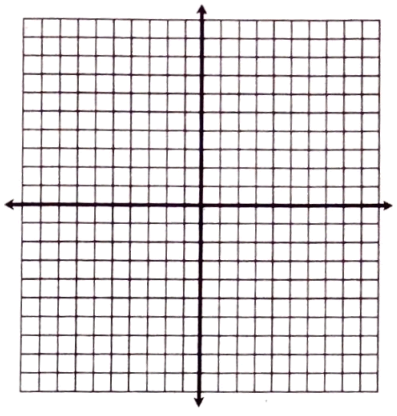


Directions: Graph each linear inequality to show all possible solutions.

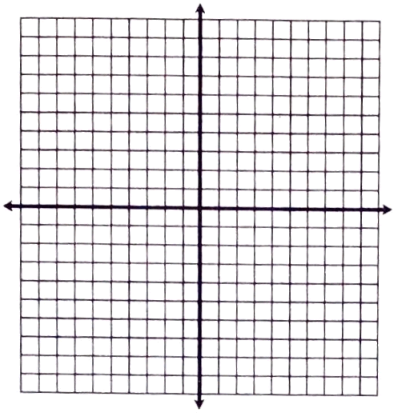
1. $y > \frac{1}{3}x - 5$



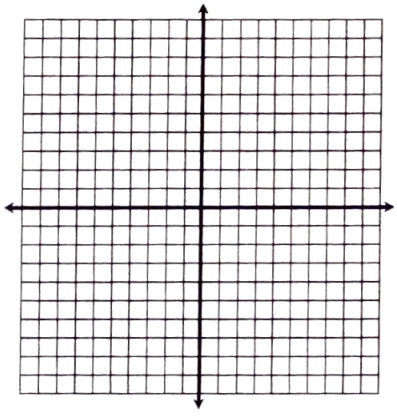
2. $y \leq -2x - 1$



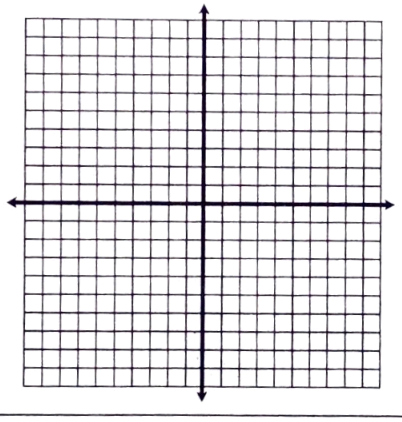
3. $5x - 2y > 12$



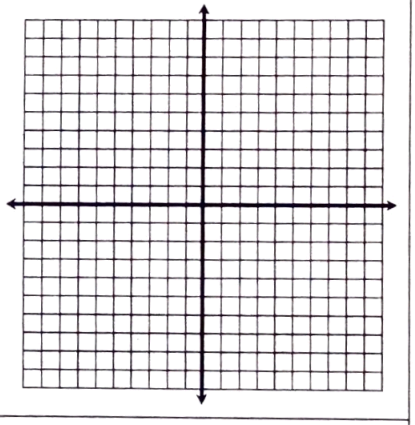
4. $x - 4y < 8$



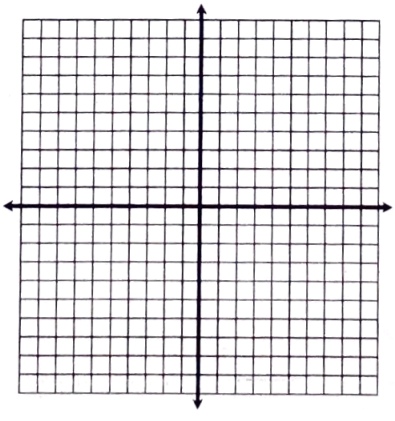
5. $x - y \geq 8$



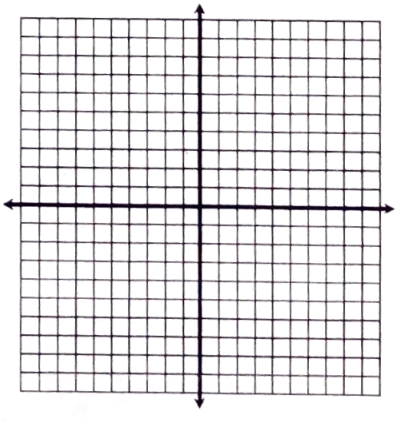
6. $3x + 2y < 0$



7. $y \leq -4$



8. $x > 7$



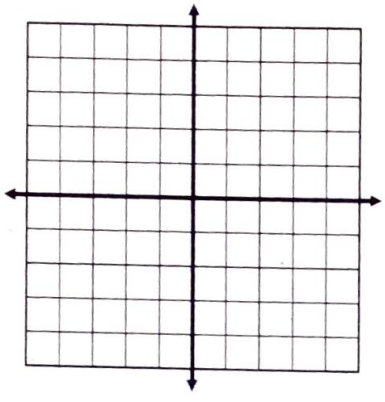
Name: _____

Date: _____ **Bell:** _____

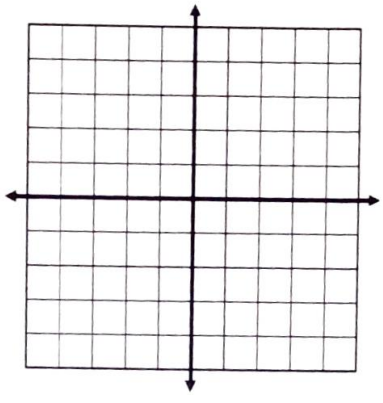
Linear Inequalities

Graph the following linear inequalities.

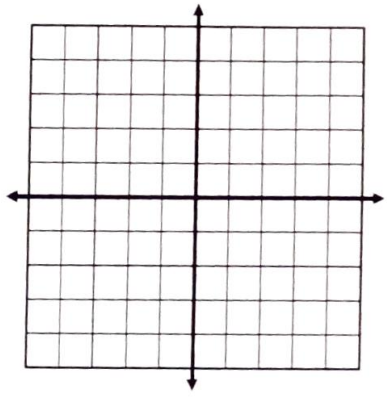
1. $y \leq -2x + 1$



2. $2x - 5y < 20$

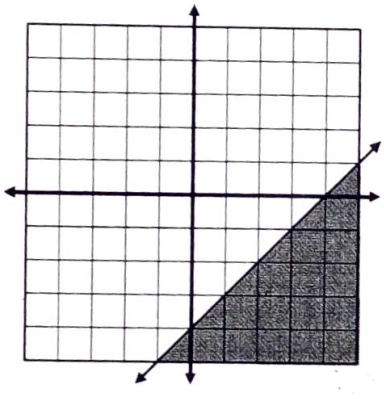


3. $x - 3y < 0$



Select the inequality that best represents the graph.

4.



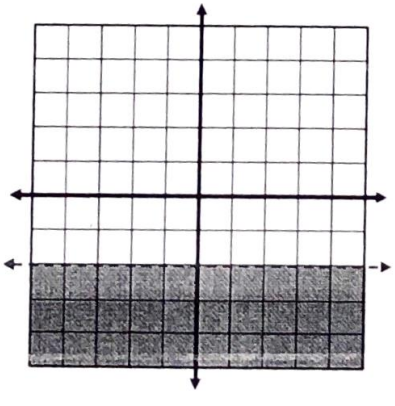
A. $x + y \leq -4$

B. $x + y \geq -4$

C. $x - y \leq 4$

D. $x - y \geq 4$

5.



A. $x < -2$

B. $y < -2$

C. $x > -2$

D. $y > -2$