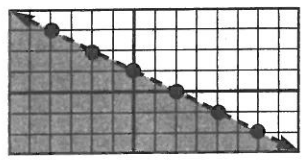


Graphing Linear Equalities

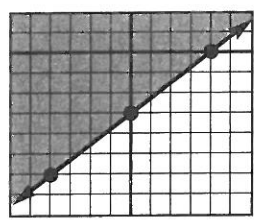
$y < -\frac{1}{2}x + 1$

- 1.) Graph $y = -\frac{1}{2}x + 1$ as a dotted line.
- 2.) Choose a point in one half-plane and substitute.
Try (0, 3):
 $3 < -\frac{1}{2} \cdot 0 + 1 = 3 < 1 = \text{False}$
- 3.) Shade half-plane that does not contain (0, 3).

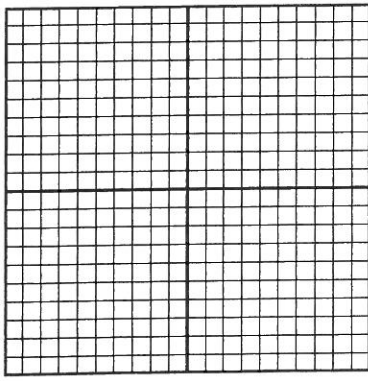


$3x - 4y \leq 12 \Rightarrow y \geq \frac{3}{4}x - 3$

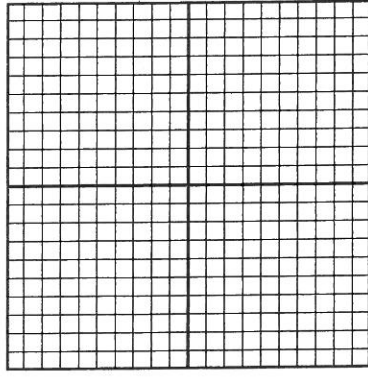
- 1.) Graph $y \geq \frac{3}{4}x - 3$ as a solid line.
- 2.) Choose a point in one half-plane and substitute.
Try (0, 0):
 $0 \geq \frac{3}{4} \cdot -3 \Rightarrow 0 \geq -3 \Rightarrow \text{True}$
- 3.) Shade the half-plane that contains (0, 0).



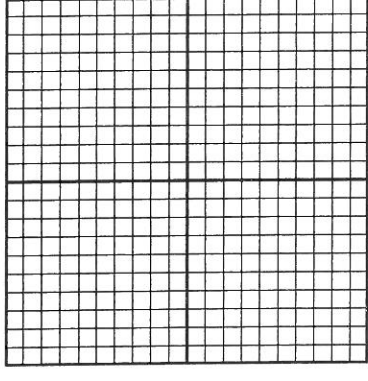
1. $y > x + 1$



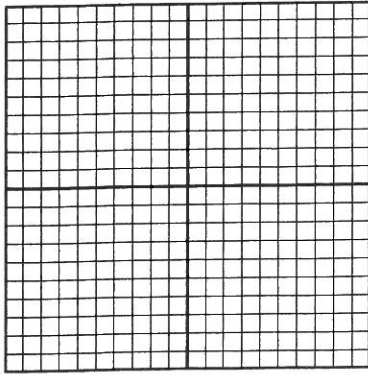
2. $3x - y \leq 6$



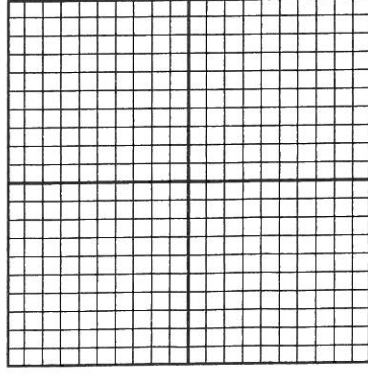
3. $y + 5 \leq 0$



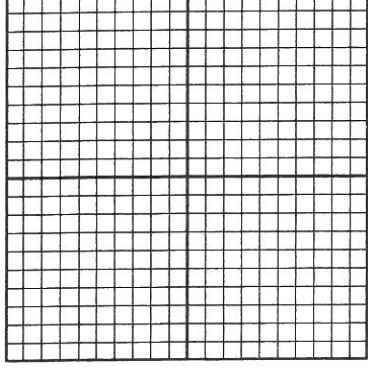
4. $y \geq 2x - 3$



5. $x + y < 3$



6. $2x + y > -8$

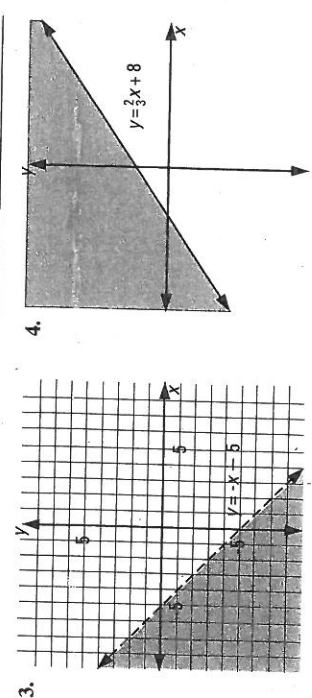
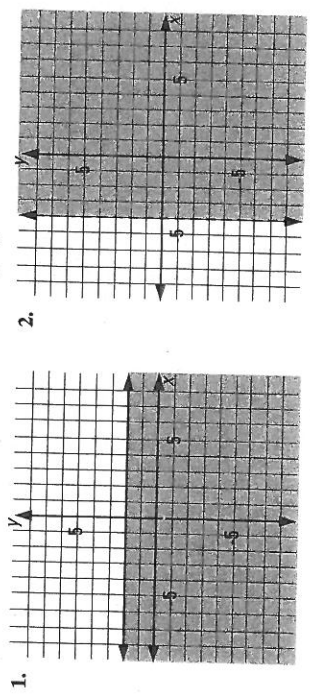


LESSON MASTER 7-9 B

Questions on SPUR Objectives

Representations Objective I: Graph linear inequalities.

In 1-4, write an inequality that describes the graph.

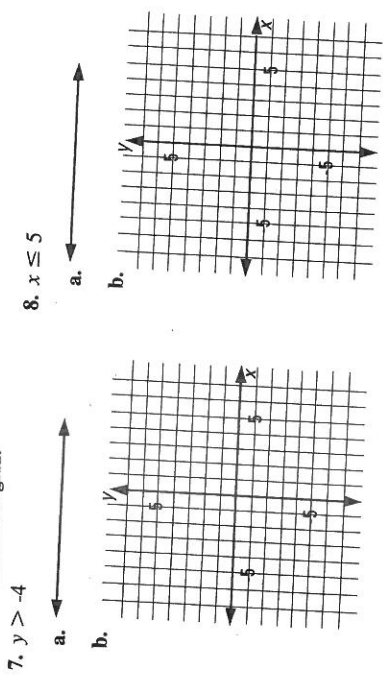


In 5 and 6, an inequality is given. a. Tell if you should shade above or below the boundary line. b. Tell if the boundary line should be solid or dashed.

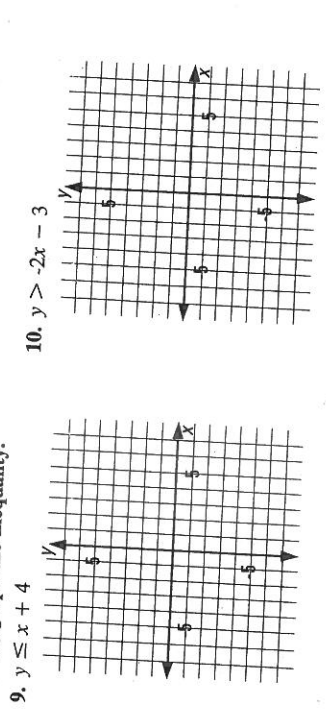
5. $y < x - 11$
- a. _____
- b. _____
6. $y \geq 5x + 4$
- a. _____
- b. _____

LESSON MASTER 7-9 B page 2

In 7 and 8, graph the inequality a. on the number line and b. on the coordinate grid.



In 9-10, graph the inequality.



11. Graph $3W + 1T \geq 3$

