

Name:  
Instructor:

Date:  
Section:

### Practice Set 3.7

Use the choices to fill in each blank.

above  
below

dashed  
solid

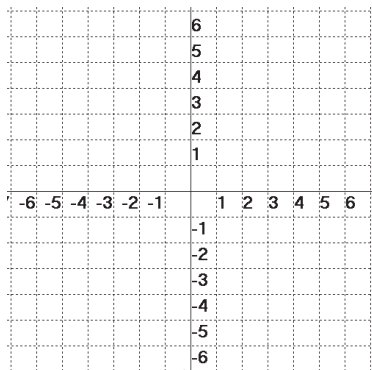
origin  
quadrant I

quadrant II  
quadrant III

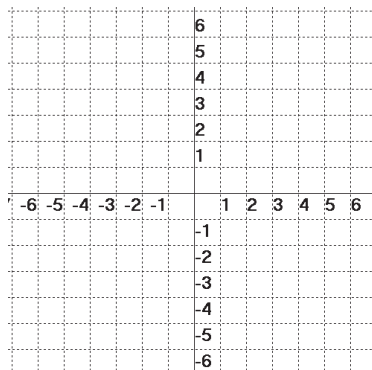
1. When graphing an inequality using  $>$  or  $<$ , the line is \_\_\_\_\_.
2. When graphing an inequality using  $\geq$  or  $\leq$ , the line is \_\_\_\_\_.
3. When graphing a linear inequality,  $(0, 0)$  cannot be used for a checkpoint when the graph goes through the \_\_\_\_\_.
4. When graphing a linear inequality of the form  $y > ax + b$  where  $a$  and  $b$  are real numbers, the solution will be \_\_\_\_\_ the line.
5. When graphing a linear inequality of the form  $y < ax + b$  where  $a$  and  $b$  are real numbers, the solution will be \_\_\_\_\_ the line.

Graph each inequality.

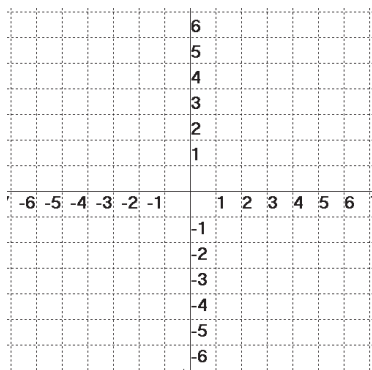
6.  $y < x + 3$



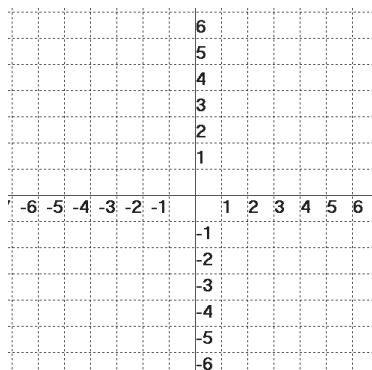
7.  $2x + 3y > 5$



8.  $y \leq \frac{3}{4}x - 2$



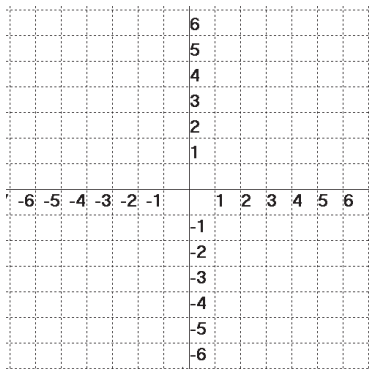
9.  $y \geq -\frac{1}{3}x + 3$



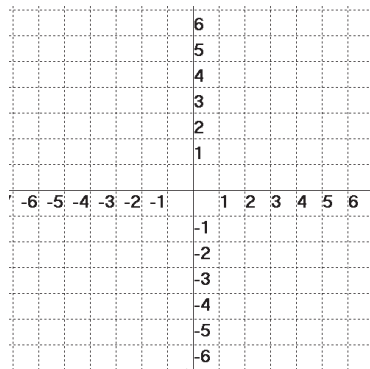
Practice Set 3.7

Graph each inequality.

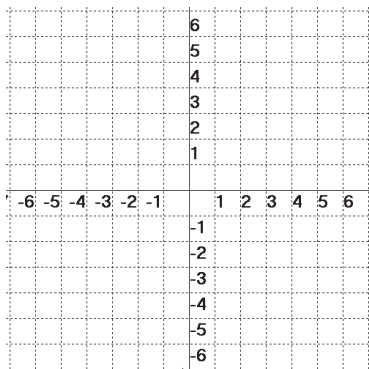
10.  $2x - 3y < 6$



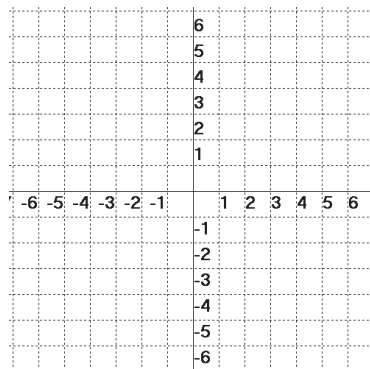
11.  $3x - 4y > 8$



12.  $-x - 2y \leq 6$



13.  $-2x - 3y \geq 9$



**Problem Solving**

14. Mark has 150 feet of fence to make a rectangular dog pen. Write an inequality to represent the different dimensions that are possible for a dog pen with perimeter less than or equal to 150 feet and graph it.

14. \_\_\_\_\_

