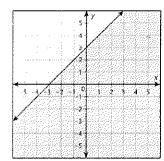
# Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities

Assessment

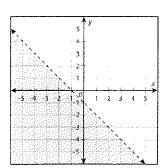
### **Progress Assessment**

Circle the letter of the best answer.

1. Which inequality corresponds to this graph?

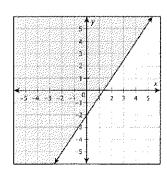


- a.  $y \le x 3$
- b.  $y \le x + 3$
- c. y > -x + 3
- d.  $y \ge x + 3$
- 2. Which inequality corresponds to this graph?



- a. y < -x 1
- b. y > x 1
- c.  $y \le -x 1$
- d.  $y \le x + 2$

3. Which inequality corresponds to this graph?



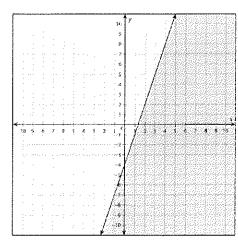
- a.  $-3x + 2y \le 4$
- b.  $3x + 2y \ge -4$
- c.  $-3x 2y \ge -4$
- d.  $3x 2y \le 4$

# Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities

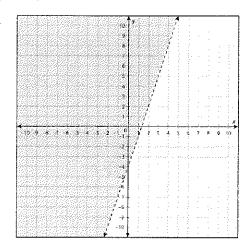
Assessment

4. Which graph represents the solution to the inequality 3x - y > 4?

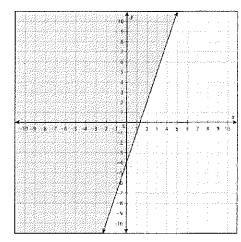
a.



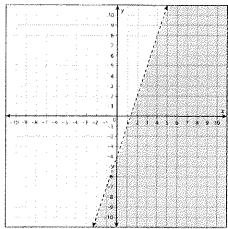
۰



b.



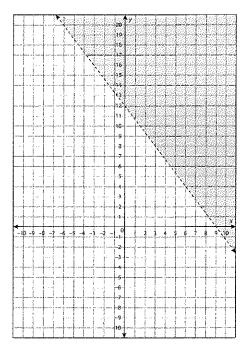
d.

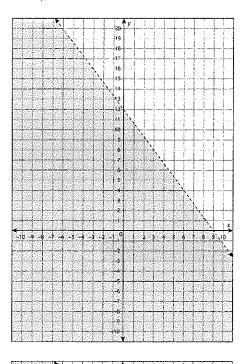


# Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities

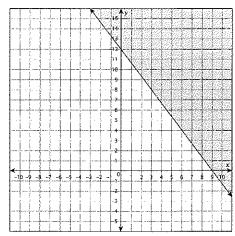
Assessment

5. Which graph represents the solution to the inequality  $4x + 3y \ge 36$ ?

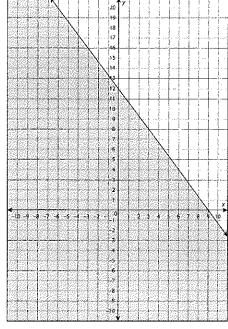




b.



d.

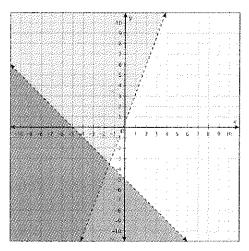


# Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities

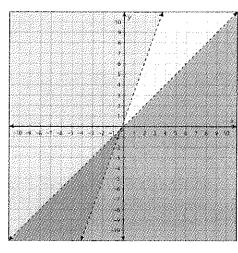
Assessment

6. Which graph represents the solution to the system of inequalities  $\begin{cases} y > 3x - 10 \\ y < x - 5 \end{cases}$ ?

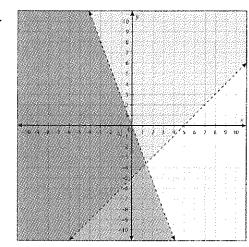
a.



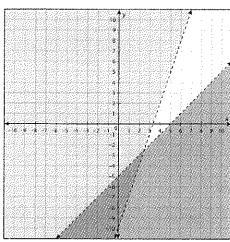
c.



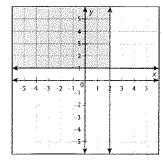
b.



d.



7. Which system of inequalities corresponds to this graph?



a. 
$$\begin{cases} x > 2 \\ v \le 1 \end{cases}$$

b. 
$$\begin{cases} x \le 2 \\ y > 1 \end{cases}$$

c. 
$$\begin{cases} x \ge 2 \\ y \ge 1 \end{cases}$$

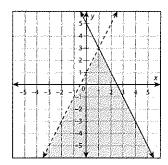
$$d. \begin{cases} x \le 2 \\ y \ge 1 \end{cases}$$

continued

# Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities

**Assessment** 

8. Which system of inequalities corresponds to this graph?



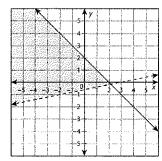
a. 
$$\begin{cases} y \le 2x + 1 \\ y > -2x + 5 \end{cases}$$

$$b. \begin{cases} y > 2x + 1 \\ y > -2x + 5 \end{cases}$$

c. 
$$\begin{cases} y > 2x + 1 \\ y \le -2x + 1 \end{cases}$$

$$d. \begin{cases} y < 2x + 1 \\ y \le -2x + 5 \end{cases}$$

9. Which system of inequalities corresponds to this graph?



a. 
$$\begin{cases} y < \frac{1}{5}x - \frac{1}{2} \\ y \ge -x + 2 \end{cases}$$

b. 
$$\begin{cases} y > \frac{1}{5}x - \frac{1}{2} \\ y \le -x + 2 \end{cases}$$

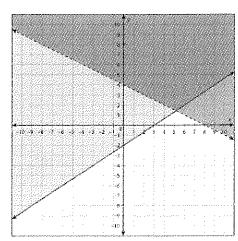
$$c. \begin{cases} y > \frac{1}{5}x - \frac{1}{2} \\ y \ge -x + 2 \end{cases}$$

$$d. \begin{cases} y < \frac{1}{5}x - \frac{1}{2} \\ y \le -x + 2 \end{cases}$$

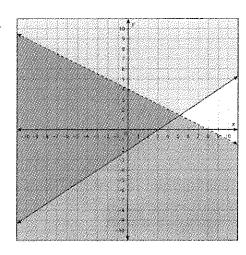
# Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities

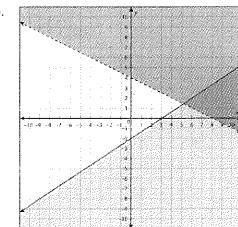
Assessment

10. Which graph represents the solution to the system of inequalities

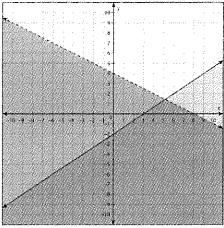


c.





đ.



### **Lesson 3: Representing Constraints**

Assessment

### **Progress Assessment**

Circle the letter of the best answer.

11. Which point is a solution to the system of inequalities  $\begin{cases} y \ge \frac{2}{3}x - 3 & ? \\ y \le -x + 7 & \end{cases}$ 

a. (2, 6)

c. (0, -3)

b. (-1, 8)

d. (1, 4)

12. Given the system of inequalities in problem 1, which point is NOT a solution?

a. (3, -1)

c. (5, 1)

b. (1, -3)

d. (2, 4)

13. Given the inequalities y < 2x - 6 and  $y \le 4x + 5$ , the point (2, 3) is:

- a. a solution to both inequalities
- c. a solution to  $y \le 4x + 5$  only

b. a solution to y < 2x - 6 only

d. not a solution of either of the inequalities

14. An online company is advertising a subscription service for downloads of e-books. The monthly fee is \$6.50, plus \$1.99 for each downloaded book. You can afford to spend no more than \$15.00 each month on e-books. What is the maximum number of e-books you can download?

a. 8

c. 5

b. 7

d. 4

15. Used video games are advertised for \$12.00 and new video games are advertised for \$20.00. You have a gift card for \$100.00. Which of the following game combinations can you NOT buy?

- a. 7 used video games and 1 new video game
- b. 4 used video games and 2 new video games
- c. 1 used video game and 4 new video games
- d. 0 used video games and 5 new video games

continued