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Date: \_\_\_\_\_

**UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES**

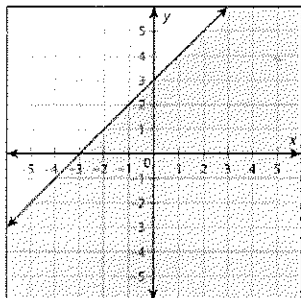
**Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities**

**Assessment**

**Progress Assessment**

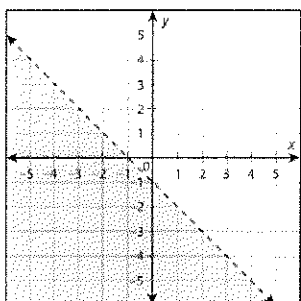
Circle the letter of the best answer.

1. Which inequality corresponds to this graph?



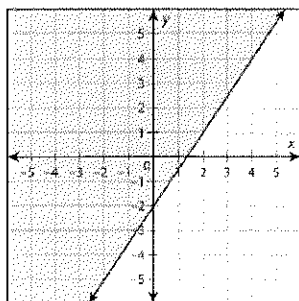
- a.  $y \leq x - 3$
- b.  $y \leq x + 3$
- c.  $y > -x + 3$
- d.  $y \geq x + 3$

2. Which inequality corresponds to this graph?



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

3. Which inequality corresponds to this graph?



- a.  $-3x + 2y \leq 4$
- b.  $3x + 2y \geq -4$
- c.  $-3x - 2y \geq -4$
- d.  $3x - 2y \leq 4$

**continued**

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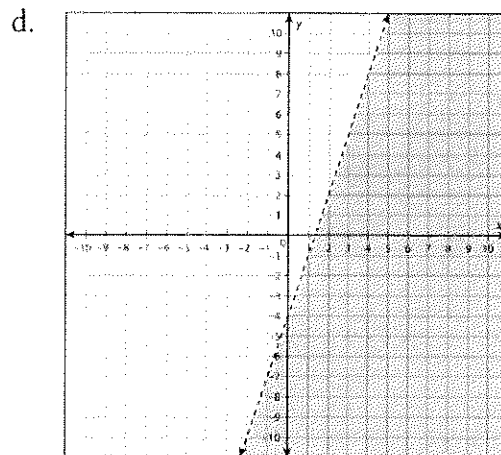
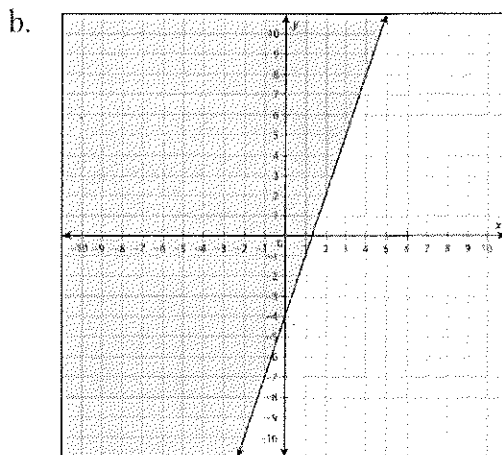
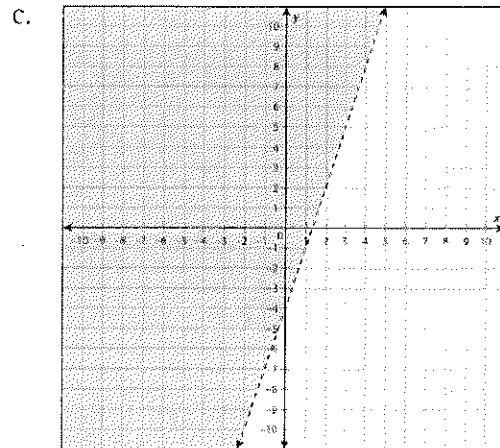
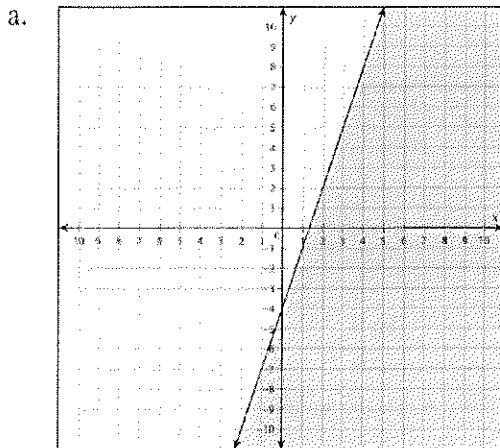
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**UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES**

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

**Assessment**

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



*continued*

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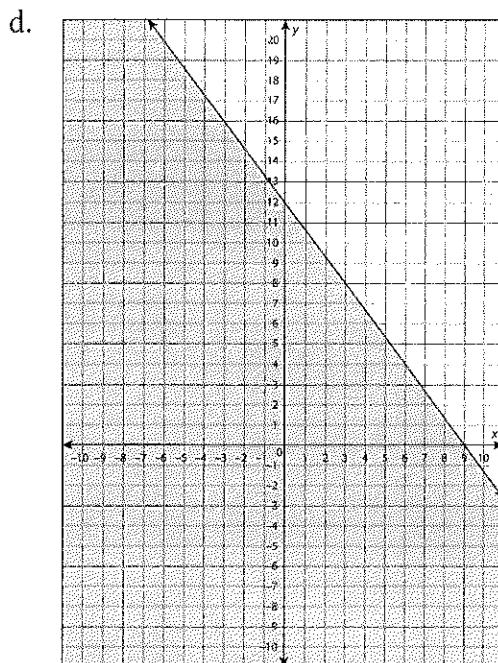
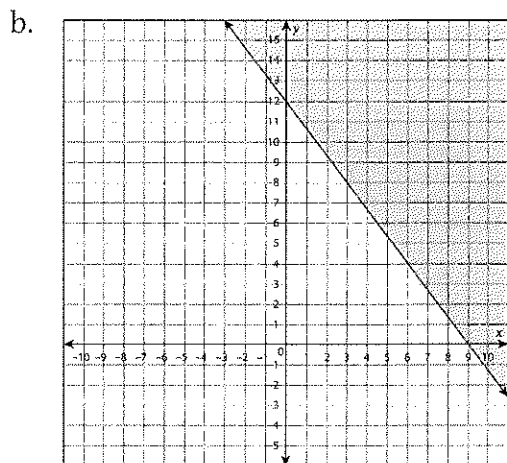
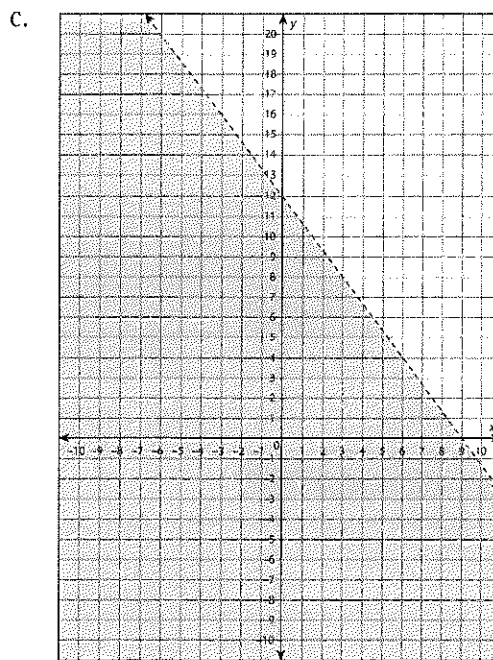
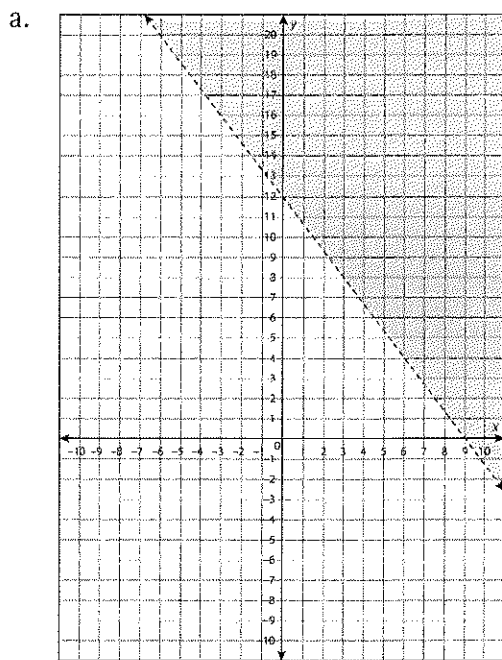
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**UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES**

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

**Assessment**

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



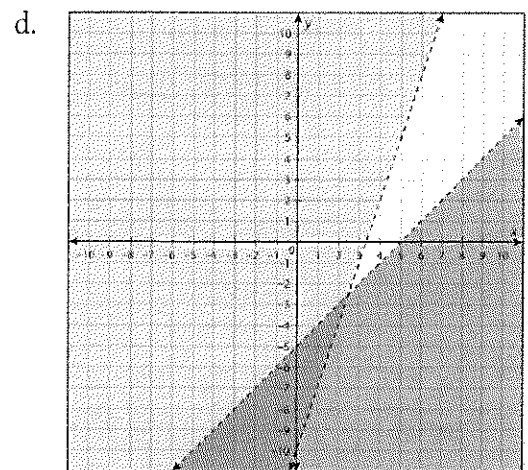
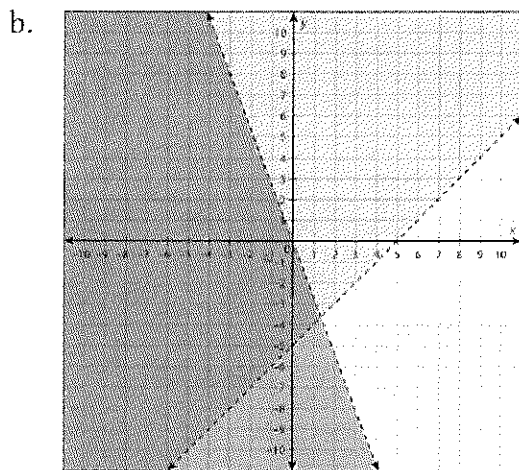
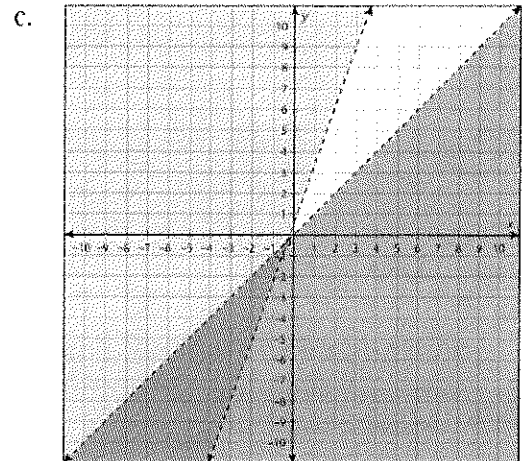
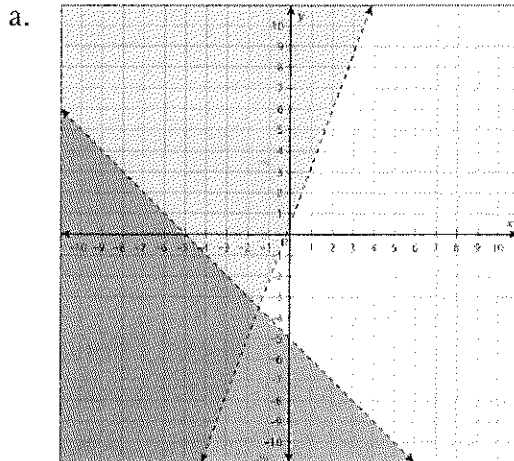
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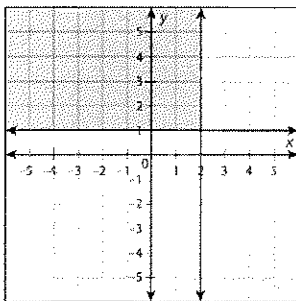
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**UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES****Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities****Assessment**

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



7. Which system of inequalities corresponds to this graph?



- a.  $\begin{cases} x > 2 \\ y \leq 1 \end{cases}$   
 b.  $\begin{cases} x \leq 2 \\ y > 1 \end{cases}$   
 c.  $\begin{cases} x \geq 2 \\ y \geq 1 \end{cases}$   
 d.  $\begin{cases} x \leq 2 \\ y \geq 1 \end{cases}$

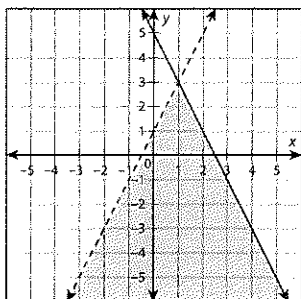
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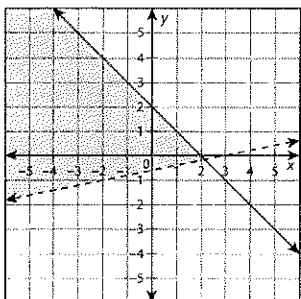
**UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES****Lesson 8: Solving Linear Inequalities in Two Variables and Systems of Inequalities****Assessment**

8. Which system of inequalities corresponds to this graph?



- a.  $\begin{cases} y \leq 2x + 1 \\ y > -2x + 5 \end{cases}$
- b.  $\begin{cases} y > 2x + 1 \\ y > -2x + 5 \end{cases}$
- c.  $\begin{cases} y > 2x + 1 \\ y \leq -2x + 5 \end{cases}$
- d.  $\begin{cases} y < 2x + 1 \\ y \leq -2x + 5 \end{cases}$

9. Which system of inequalities corresponds to this graph?



- a.  $\begin{cases} y < \frac{1}{5}x - \frac{1}{2} \\ y \geq -x + 2 \end{cases}$
- b.  $\begin{cases} y > \frac{1}{5}x - \frac{1}{2} \\ y \leq -x + 2 \end{cases}$
- c.  $\begin{cases} y > \frac{1}{5}x - \frac{1}{2} \\ y \geq -x + 2 \end{cases}$
- d.  $\begin{cases} y < \frac{1}{5}x - \frac{1}{2} \\ y \leq -x + 2 \end{cases}$

**continued**

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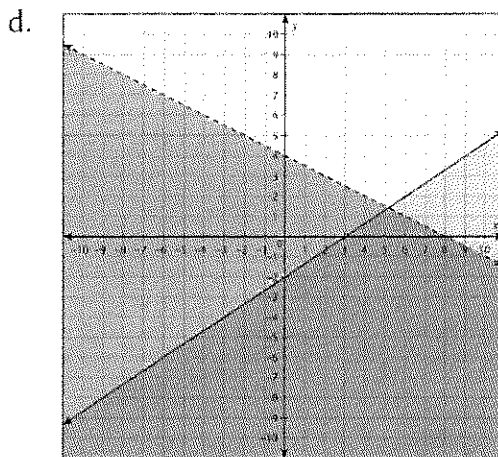
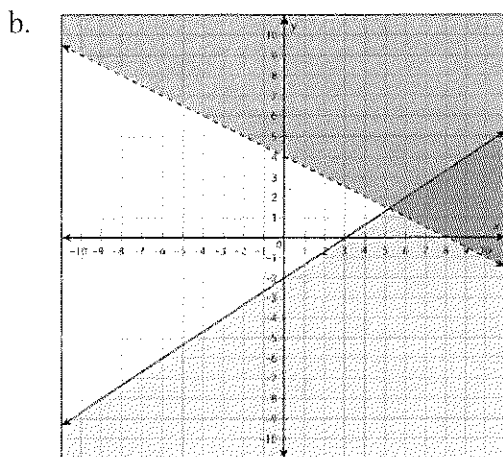
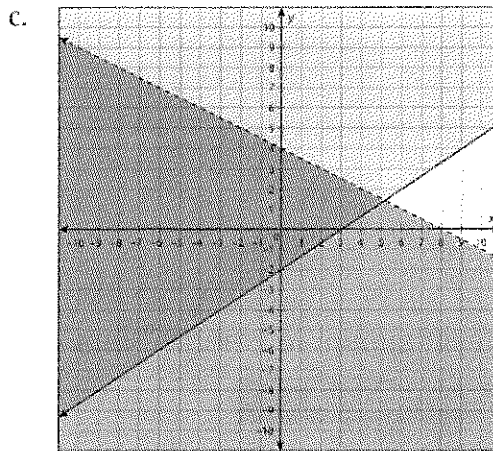
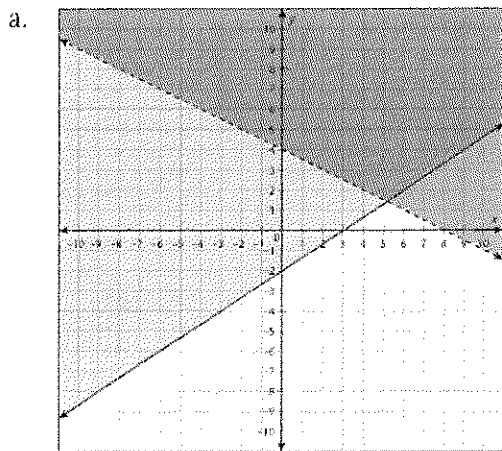
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**UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES**

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

**Assessment**

10. Which graph represents the solution to the system of inequalities  $\begin{cases} 3x + 6y > 24 \\ 2x - 3y \leq 6 \end{cases}$  ?



**continued**

## UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES

## Lesson 3: Representing Constraints

## Assessment

## Progress Assessment

Circle the letter of the best answer.

1. Which point is a solution to the system of inequalities

$$\begin{cases} y \geq -7x + 3 \\ y \geq \frac{2}{3}x - 3 \\ y \leq -x + 7 \end{cases} ?$$

a. (2, 6)

c. (0, -3)

b. (-1, 8)

d. (1, 4)

2. 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)

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

a. a solution to both inequalities

c. a solution to  $y \leq 4x + 5$  onlyb. a solution to  $y < 2x - 6$  only

d. not a solution of either of the inequalities

4. 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

5. 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