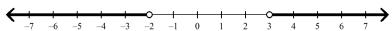
## **Graph Quadratic Inequalities on a number line**

### **Multiple Choice**

Identify the choice that best completes the statement or answers the question.

1.



Which of the following is the inequality for the graph?

a. 
$$(x-3)(x+2) > 0$$

c. 
$$(x-3)(x-2) > 0$$

b. 
$$(x+3)(x-2) > 0$$

d. 
$$(x+3)(x+2) > 0$$

2.



Which of the following is the inequality for the graph?

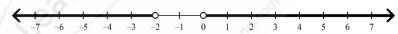
a. 
$$x^2 - 5x - 6 < 0$$

c. 
$$-x^2 - 5x + 6 < 0$$

b. 
$$x^2 - 5x + 6 < 0$$

d. 
$$-x^2 + 5x - 6 < 0$$

3.



Which of the following is the inequality for the graph?

a. 
$$x^2 + 2x - 8 > -8$$

c. 
$$x^2 - 2x + 8 > -8$$

b. 
$$-x^2 - 2x - 8 > -8$$

d. 
$$-x^2 - 2x + 8 > -8$$

4.



Which of the following is the inequality for the graph?

a. 
$$-x^2 - 3x - 6 > -5x - 9$$
 c.  $-x^2 - 3x + 6 > -5x - 9$ 

c. 
$$-x^2 - 3x + 6 > -5x - 9$$

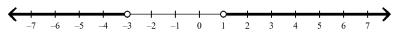
b. 
$$x^2 + 3x + 6 > -5x - 9$$
 d.  $x^2 - 3x - 6 > -5x - 9$ 

d. 
$$x^2 - 3x - 6 > -5x - 9$$

#### **Multiple Response**

Identify one or more choices that best complete the statement or answer the question.

5.



Which two of the following are inequalities for the graph?

a. 
$$-(x-3)(x+1) < 0$$

c. 
$$-x^2 + 2x - 3 < 0$$

b. 
$$-x^2 - 2x + 3 < 0$$

d. 
$$-(x+3)(x-1) < 0$$

6.



Which two of the following are inequalities for the graph?

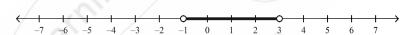
a. 
$$x^2 - 4x - 9 < 6$$

c. 
$$(x-3)(x-1) < 0$$

b. 
$$(x+3)(x+1) < 0$$

d. 
$$x^2 + 4x + 9 < 6$$

7.



Which two of the following are inequalities for the graph?

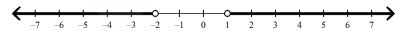
a. 
$$(x-3)(x+1) < 0$$

c. 
$$x^2 - 5x + 1 < -3x + 4$$

b. 
$$(x+3)(x-1) < 0$$

d. 
$$x^2 + 5x - 1 < -3x + 4$$

8.



Which two of the following are inequalities for the graph?

a. 
$$-x^2 - 6x + 14 < 7x - 16$$

c. 
$$-x^2 + 6x - 14 < 7x - 16$$
  
d.  $-(x-2)(x+1) < 0$ 

b. 
$$-(x+2)(x-1) < 0$$

d. 
$$-(x-2)(x+1) < 0$$

# **Graph Quadratic Inequalities on a number line Answer Section**

### **MULTIPLE CHOICE**

- 1. ANS: A
- 2. ANS: D
- 3. ANS: A
- 4. ANS: B

### MULTIPLE RESPONSE

- 5. ANS: B, D
- 6. ANS: B, D
- 7. ANS: A, C
- 8. ANS: B, C