

# Chapter 4 Cumulative Review

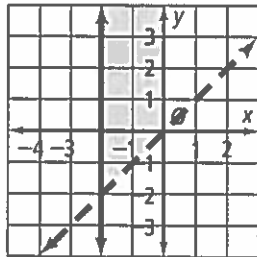
CP Alg. 2 BB2

## Multiple Choice

For Exercises 1–13, choose the correct letter.

1. Which line is perpendicular to the graph of  $y = -\frac{3}{2}x + \frac{2}{3}$ ?
- (A)  $y = \frac{3}{2}x + 6$       (B)  $y = 3x + \frac{2}{3}$       (C)  $y = \frac{2}{3}x + \frac{3}{2}$       (D)  $y = \frac{6}{3}x + \frac{2}{3}$

2. What system describes this graph?



- (F)  $\begin{cases} y \geq x \\ x \geq -2 \\ x \leq 0 \end{cases}$       (G)  $\begin{cases} y > x \\ x > -2 \\ x < 0 \end{cases}$       (H)  $\begin{cases} y = x \\ x \geq 2 \\ x \leq 0 \end{cases}$       (I)  $\begin{cases} y > x \\ x \geq -2 \\ x \leq 0 \end{cases}$

3. Which of these is the standard form of  $y = 8x + 12$ ?

- (A)  $y - 8x - 12 = 0$       (C)  $-8x + y = 12$   
 (B)  $y - 8x = 12$       (D)  $8x - y = -12$

4. What is the solution of the system?  $\begin{cases} y = -x^2 + 3x - 3 \\ y = 2x - 5 \end{cases}$

- (F)  $(0, -3), (2, -1)$       (H)  $(-1, -7), (2, -1)$   
 (G)  $(-1, -7), (3, -3)$       (I)  $(-1, -10), (3, 2)$

5. Which number is irrational?

- (A)  $\sqrt{144}$       (B)  $\frac{27}{9}$       (C)  $\sqrt{2}$       (D)  $-0.5$

6. Which point lies on the graph of  $2x - y + z = 0$ ?

- (F)  $(0, 4, -8)$       (G)  $(0, 2, 4)$       (H)  $(12, -6, 6)$       (I)  $(0, -5, -5)$

7. Which of these is the solution of  $-7x > 4x + 33$ ?

- (A)  $x > 3$       (B)  $x < 3$       (C)  $x > -3$       (D)  $x < -3$

8. Simplify  $(5 + 6i) + (2 - 3i)$ .

- (F) 4      (G)  $7 - 3i$       (H)  $7 + 3i$       (I)  $3 + 3i$

9. At which vertex is the objective function  $C = 3x - 4y$  maximized?

- (A)  $(9, 0)$       (B)  $(-2, -20)$       (C)  $(-5, -2)$       (D)  $(0, -9)$