

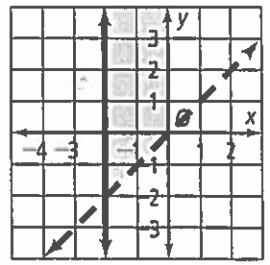
Chapter 4 Cumulative Review CP Alg. 2

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) $(0, -9)$