

Chapter 5 Cumulative Review

CP Alg. 2 BB3

Multiple Choice

For Exercises 1-14, choose the correct letter.

1. Which relation is *not* a function?

- (A) $y = 0$ (B) $y = 2x$ (C) $y = x + 2$ (D) $x = 2$

2. For which of the following sets of data is a linear model reasonable?

- (F) $\{(0, 11), (2, 8), (3, 7), (7, 2), (8, 0)\}$
 (G) $\{(-15, 8), (-8, -7), (-3, 0), (0, 5), (7, -3)\}$
 (H) $\{(-10, 3.5), (-5.5, 6.5), (-0.1, -4), (3.5, -7.5), (12, -5)\}$
 (I) $\{(-1, 3.5), (0, 2.5), (2, 6.5), (-3, 11.5), (5, 27.5)\}$

3. Which is a solution of the system of inequalities $\begin{cases} y + 4 > 0 \\ y \leq x + 1 \end{cases}$?

- (A) (3, 3) (B) (-1, 2) (C) (1, 5) (D) (0, 2)

4. Which of the following is the equation of a parabola?

- (F) $y = x - 1$ (G) $y = |x + 3|$ (H) $y = x^2 + 1$ (I) $x = y + 2$

5. Which of these is a direct variation?

- (A) $x = 8$ (B) $y = 8$ (C) $y = 8x$ (D) $y = 8x^2$

6. Which of these quadratic equations has the factors $(x - 2)$ and $(x - 3)$?

- (F) $x^2 - x - 6$ (G) $x^2 + x - 6$ (H) $x^2 - 5x + 6$ (I) $x^2 + 5x + 6$

7. Which polynomial is written in standard form?

- (A) $1 + 3x - 5x^2$ (B) $3x^2 + 2 + x^3$ (C) $4x - 5x^2$ (D) $6x^3 - x + 7$

8. Solve the system $\begin{cases} x + 4 = 0 \\ y = x + 1 \end{cases}$.

- (F) (-4, -3) (G) (4, 3) (H) (-4, -5) (I) (-4, 3)

9. Solve $8x < 12 + 4x$.

- (A) $x < 1$ (B) $x < 3$ (C) $x > 3$ (D) $x = 3$

10. What is the axis of symmetry of $y = 2(x - 3)^2 + 5$?

- (F) $y = 3$ (G) $x = 2.5$ (H) $x = 3$ (I) $x = 5$