



NAME:

GRADE:

TIME:

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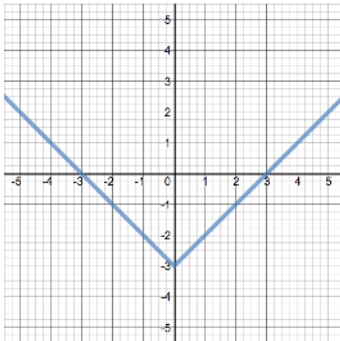
ALGEBRA I

CALCULATOR ALLOWED

1. Solve $|-2x + 3| = 29$

- A. $x = -13$
- B. $x = -13, 13$
- C. $x = -13, 16$
- D. $x = 16, -16$

2. Determine the equation for $g(x)$.



- A. $y = |x| - 3$
- B. $y = |x| + 3$
- C. $y = |x - 3|$
- D. $y = |x + 3|$

3. What is the value of 2^{-2} ?

- A. -4
- B. 4
- C. $1/4$
- D. $-1/4$

4. Solve for x : $x^2 - 3x - 28$

- A. $x = -3$ & 28
- B. $x = 1$ & -3
- C. $x = -7$ & 4
- D. $x = 7$ & -4

5. In the equation $y = 35(5^x)$, what value does the 35 represent?

- A. Y-intercept
- B. Starting value
- C. Growth factor
- D. Growth rate

6. The solution to $(x - 9)^2 = 16$ is

- A. 13 and 5
- B. -1 and 7
- C. -5 and 5
- D. -4 and -14

7. Below is the perimeter formula for a rectangle in terms of length and width. Which of the following represents the width in terms of the perimeter and length? $P = 2l + 2w$

- A. $w = \frac{P}{2} - 2l$
- B. $w = \frac{P - 2l}{2}$
- C. $w = \frac{P}{2} + l$
- D. $w = \frac{P - 2}{2l}$



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8. What is the solution of the system

$$\begin{cases} y = 2x + 3 \\ y = -x + 6 \end{cases} ?$$

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

9. Which list is in order from least to greatest?

- A.** $-5, -\sqrt{2}, -\frac{1}{2}, 1, 2, \sqrt{5}$
- B.** $-5, -\frac{1}{2}, -\sqrt{2}, 1, 2, \sqrt{5}$
- C.** $5, -\sqrt{2}, -\frac{1}{2}, 1, \sqrt{5}, 2$
- D.** $-\frac{1}{2}, -\sqrt{2}, -5, 1, 2, \sqrt{5}$

10. What is the solution to the inequality

$$-9 \leq 2x + 1 < 5?$$

- A.** $-5 \leq x < 2$
- B.** $-4 \leq x < 3$
- C.** $4 \geq x > 2$
- D.** $5 \geq x > -2$

11. What is the slope of the line through the points (3, -2) and (5, 8)?

- A.** -5
- B.** $-\frac{1}{5}$
- C.** $\frac{1}{5}$
- D.** 5

12. The length of a rectangle is 3 more than twice its width. The perimeter of the rectangle is 42 centimeters. What is the length of the rectangle?

- A.** 6 cm
- B.** 13 cm
- C.** 15 cm
- D.** 29 cm

13. Function $f(x) = x^2 + 4x - 5$ given, what is the value of $f(2)$?

- A.** 3
- B.** -3
- C.** 0
- D.** 7

14. Multiply $(3x + 4)(2x - 4)$

- A.** $6x^2 - 4x - 16$
- B.** $6x^2 + 4x - 16$
- C.** $3x^2 + 4x - 4$
- D.** $2x^2 + 4x - 16$

15. Which points are on the graph of the equation $3 - 6x + 2y = -5$? Select **all** that apply.

- A.** (-2, -10)
- B.** (-1, 1)
- C.** (0, 4)
- D.** (4, 8)
- E.** (6, 14)