CALIFORNIA ALGEBRA II · UNIT 1 · 10 QUESTIONS

Functions and Polynomial Functions — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The inverse of f(x) = 2x + 9 is**

- **A** $f^{-1}(x) = 2x - 9$
- **B** $f^{-1}(x) = \frac{x - 9}{2}$
- **C** $f^{-1}(x) = \frac{x + 9}{2}$
- **D** $f^{-1}(x) = \frac{x}{2} + 9$

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2 Given $f(x) = x + 3$ and $g(x) = x^2$, the value of $(f \circ g)(4)$ is

- A 14
- B 19
- C 7
- D 22

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3 The average rate of change of $f(x) = 2x^2$ on the interval $1 \leq x \leq 3$ is

- A 8
- B 6
- C 4
- D 16

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4 **The larger zero of $x^2 - 2x - 15$ is**

A 3

B -3

C 5

D -5

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5 **The function $f(x) = x^3 + 2x$ is**

A odd

B neither even nor odd

C both even and odd

D even

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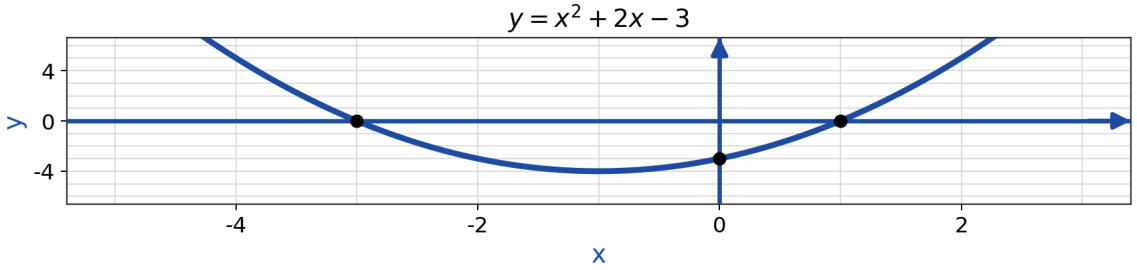
6 **The graph below shows y = x² + 2x - 3. The vertex of the graph is**



- **A** (-1, -4)
- **B** (1, 0)
- **C** (1, -4)
- **D** (-3, 0)

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7 **The factored form of x² + x - 20 is**

- **A** (x + 5)(x + 4)
- **B** (x - 5)(x - 4)
- **C** (x - 5)(x + 4)
- **D** (x + 5)(x - 4)

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8 **If $p(x) = x^3 - x$, then $p(-3)$ is**

ANSWER _____

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9 **The remainder when $x^2 + 5x + 6$ is divided by $x + 1$ is**

A 2

B 0

C -2

D 12

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10 **The product of the zeros of $x^2 - 8x + 12$ is**

ANSWER _____

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ANSWER KEY

1. B
2. B
3. A
4. C
5. A
6. A
7. D
8. -24
9. A
10. 12

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