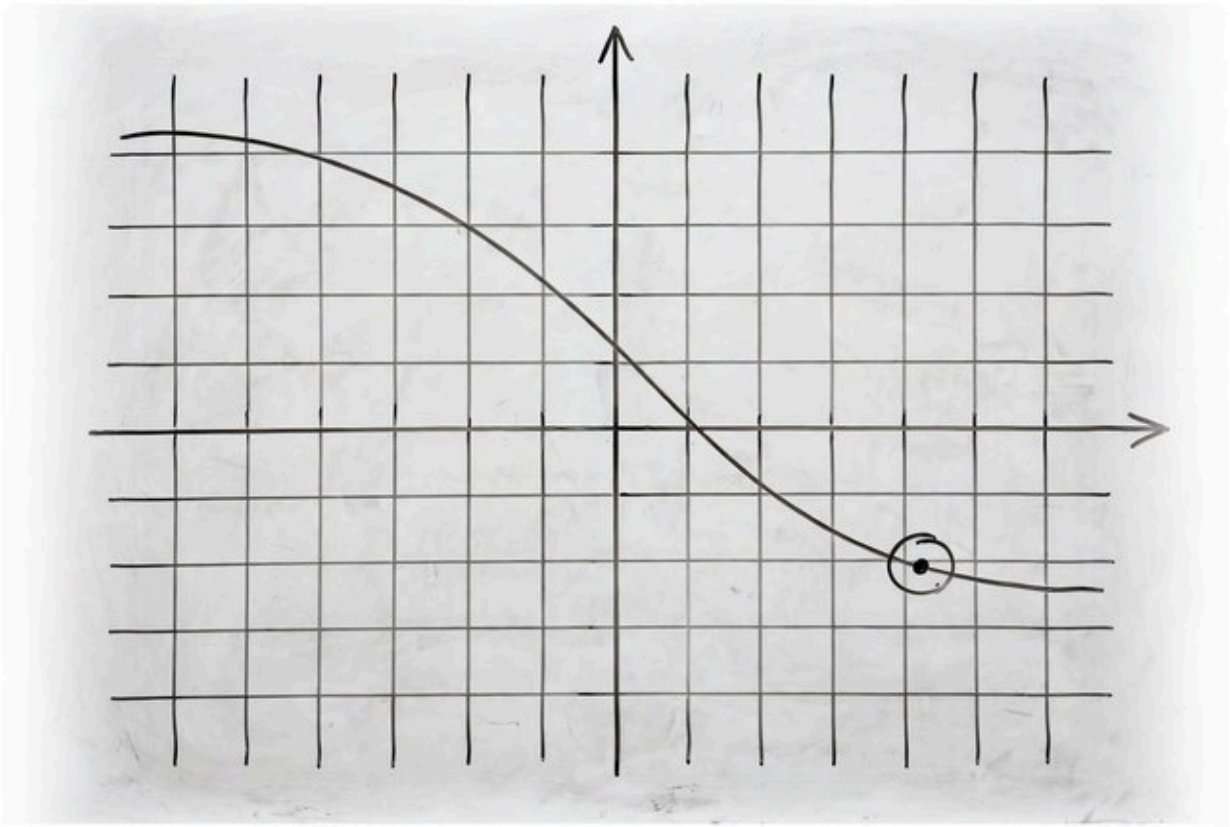
CALIFORNIA PRECALCULUS · UNIT 1 · 10 QUESTIONS

Functions, Graphs, and Transformations — 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 point (-1, 4) lies on the graph of y = f(x). The image of this point on the graph of y = f(-x) is**



A (-1, -4)

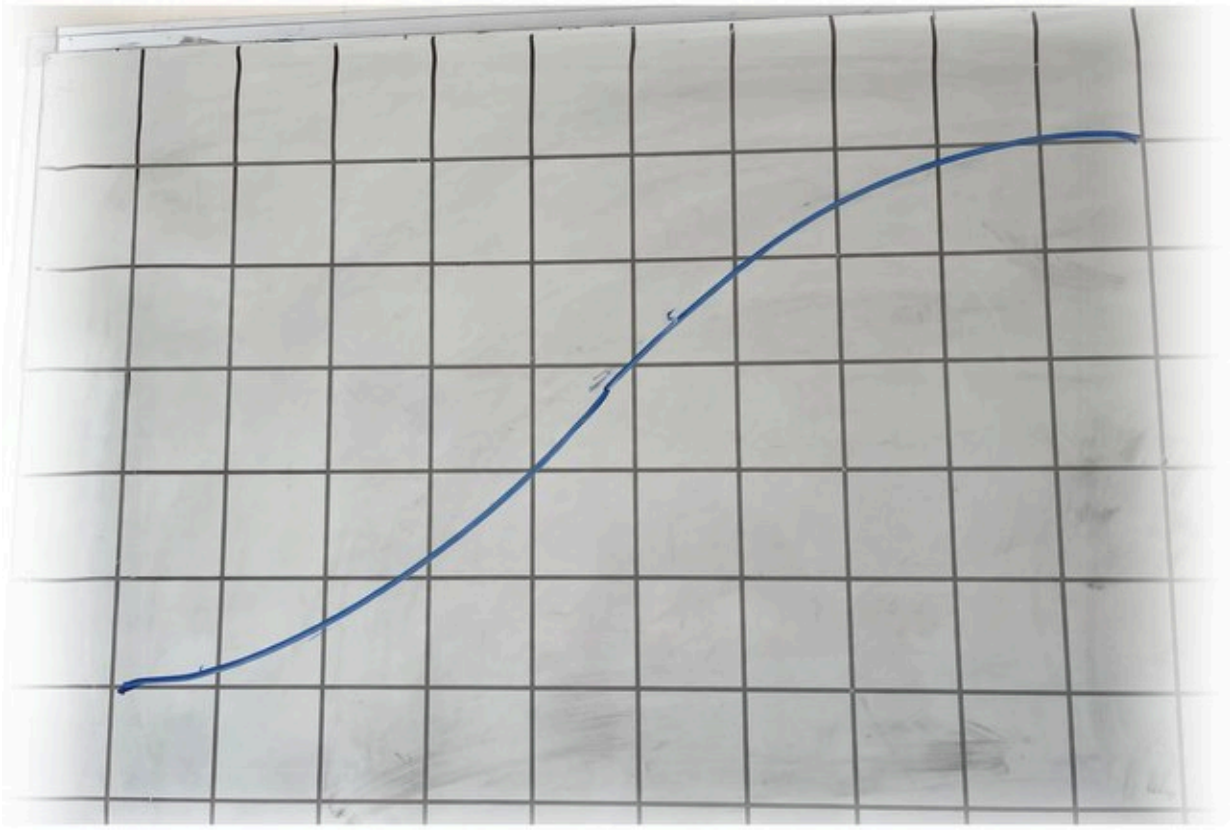
B (1, -4)

C (1, 4)

D (-1, 4)

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2 **Compared with y = f(x), the graph of y = f(x) + 3 is**



A shifted left by 3

B shifted right by 3

C shifted down by 3

D shifted up by 3

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3 **The function $f(x) = (x - 2)^2$ is decreasing on**

A $x < 2$

B $x > 2$

C all real numbers

D $x > 0$

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4 **Let $f(x) = x^2$ for $x < 0$ and $f(x) = 3x$ for $x \geq 0$. The value of $f(-3)$ is**

A 9

B 6

C -9

D -3

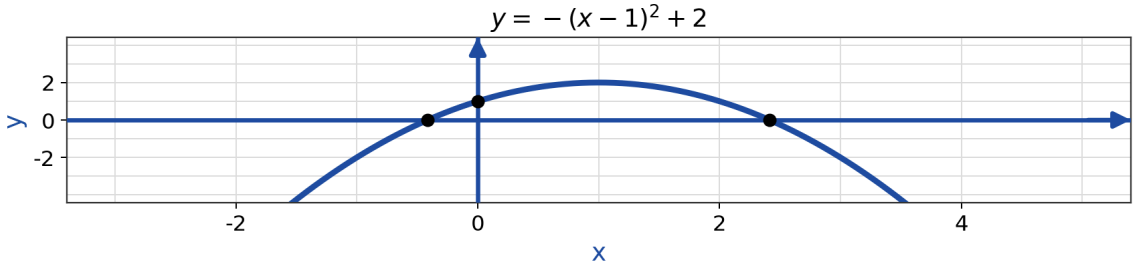
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5 **The average rate of change of $f(x) = 3x^2$ on the interval $0 \le x \le 2$ is**

- **A** 4
- **B** 6
- **C** 12
- **D** 3

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6 **The graph below shows $y = -(x - 1)^2 + 2$. The vertex of the graph is**



- **A** (1, -2)
- **B** (-1, 2)
- **C** (1, 2)
- **D** (-1, -2)

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7 **If $f(x) = 5x^2 - 2x$, then $f(3)$ is**

ANSWER _____

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8 **Which function is one to one?**

A $f(x) = 3$

B $f(x) = |x| + 1$

C $f(x) = 2x - 7$

D $f(x) = x^2 + 1$

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9 **Given f(x) = x + 1 and g(x) = 2x - 3, the value of (f ° g)(2) is**

- A 5
- B 2
- C 4
- D 1

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10 **If f(x) = 4x - 4, then $f^{-1}(12)$ is**

ANSWER _____

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ANSWER KEY

1. C
2. D
3. A
4. A
5. B
6. C
7. 39
8. C
9. B
10. 4

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