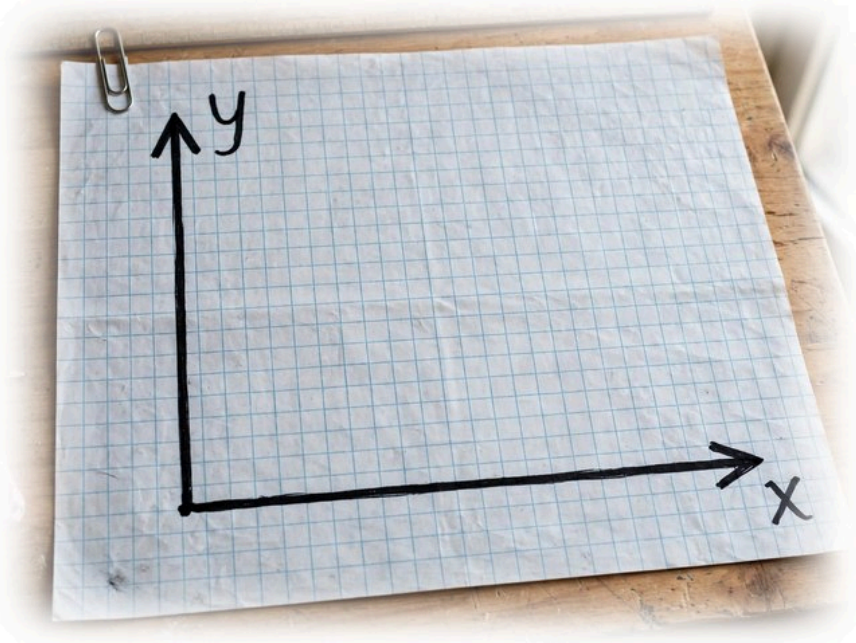
ALBERTA MATH 31 · UNIT 2 · 5 QUESTIONS

Derivatives — 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 **A coordinate grid shows x and y axes. If $f(x) = 7x^3 - 2x + 4$, then $f'(x)$ is**



- **A** $21x^2 - 2$
- **B** $21x^2 - 2x$
- **C** $7x^2 - 2$
- **D** $21x^2 + 4$

Understand It with Pulse | Flag a mistake

2 If $f(x) = x^2 + 3x$, then the value of $f'(-1)$ is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

3 $\frac{d}{dx}[4^x]$ is

A $x \cdot 4^{x-1}$

B $\frac{4^x}{\ln 4}$

C $4^x \ln 4$

D 4^x

Understand It with Pulse | Flag a mistake

4 **If $f(x) = (5x - 1)^4$, then $f'(x)$ is**

- A $4(5x - 1)^3$
- B $20(5x - 1)^3$
- C $20(5x - 1)^4$
- D $5(5x - 1)^3$

Understand It with Pulse | Flag a mistake

5 **For the function f whose graph and tangent line at P are shown, the slope of the tangent line at P is**

- A 2
- B 0
- C -1
- D -2

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. 1
3. C
4. B
5. D

© 2026 Brett Robbins. All Rights Reserved.