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AP Multiple-Choice

The function f is continuous for $-2 \leq x \leq 1$ and differentiable for $-2 < x < 1$. If $f(-2) = -5$ and $f(1) = 4$, which of the following statements could be false?

- A. There exists a c , where $-2 < c < 1$, such that $f(c) = 0$.
- B. There exists a c , where $-2 < c < 1$, such that $f'(c) = 0$.
- C. There exists a c , where $-2 < c < 1$, such that $f(c) = 3$.
- D. There exists a c , where $-2 < c < 1$, such that $f'(c) = 3$.
- E. There exists a c , where $-2 \leq c \leq 1$, such that $f(c) \geq f(x)$ for all x on the closed interval $-2 \leq x \leq 1$.

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