NORTHWEST TERRITORIES CALCULUS 12 (MCALC12) · UNIT B · 5 QUESTIONS

Differentiation Rules — 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 If $f(x) = x^2$, then $f'(3)$ found from the limit definition is

ANSWER _____

Understand It with Pulse | Flag a mistake

2 $\frac{d}{dx}\sqrt{x}$ is

A $\frac{1}{\sqrt{x}}$

B $\frac{1}{2\sqrt{x}}$

C $2\sqrt{x}$

D $-\frac{1}{2\sqrt{x}}$

Understand It with Pulse | Flag a mistake

3 $\frac{d}{dx} x^{3/2}$ is

A $\frac{3}{2}\sqrt{x}$

B $\sqrt{x}$

C $\frac{1}{2}\sqrt{x}$

D $\frac{2}{3}\sqrt{x}$

Understand It with Pulse | Flag a mistake

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

A sin x + x cos x

B cos x - x sin x

C x cos x - sin x

D sin x - x cos x

Understand It with Pulse | Flag a mistake

5 $\frac{d}{dx}\left(\frac{2x - 1}{x + 2}\right)$ is

A $\frac{5}{(x + 2)^2}$

B $\frac{3}{(x + 2)^2}$

C $\frac{-5}{(x + 2)^2}$

D $\frac{2}{(x + 2)^2}$

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. 6
2. B
3. A
4. A
5. A

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