Calculus 2 - PDF Test

LectureAI · mathematics

Summary

Calculus 2: Sample Summary

This is a test document, not generated course material.

核心概念 / Core Concepts

- 导数表示函数的瞬时变化率。
- Integrals measure accumulation. Symbols: α, β, θ, π, ≤, ≥.
- Preserve URLs https://example.test/a/b, dates 2026/10/19 and plain text x/2.

Formulas

The integral result follows immediately, without a blank paragraph:

$$\int \sqrt{x^2+a^2}\,dx = \frac{x}{2}\sqrt{x^2+a^2} + \frac{a^2}{2}\ln(x+\sqrt{x^2+a^2}) + C$$

Inline fraction $\frac{x}{2}$, power x^2, and root $\sqrt{x}$.

$$\int_0^1 x^2\,dx = \frac{1}{3}$$

$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

$$\lim_{x \to 0} \frac{\sin x}{x} = 1$$

$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}, \quad E = mc^2$$

Safe Fallback

Invalid formula remains visible: $\notacommand{x}$.

Practice 1

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 2

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 3

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 4

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 5

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 6

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 7

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.

Practice 8

中文段落测试：复习时应注意函数的定义域、单位与边界条件。 Verify the assumptions before applying a formula.

- First check the domain.
- Then calculate and interpret the result.