Beautified Notes - sample_note.png

Calculus I - Limits

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The Concept of a Limit

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The concept of a limit is fundamental to calculus. We say that:

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$$\lim_{x \to a} f(x) = L$$

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If $f(x)$ gets closer to L as x gets closer to a .

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Example:

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Let $f(x) = x^2$. As $x \to 2$, $f(x) \to 4$.

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Integral Example:

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$$\int x^2 \, dx = \frac{x^3}{3} + C$$

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> **Graph:**

> (Imagine a parabola here)