

Review

Mathematical Substitution in Integrals: A Review!

Math 125: "Calculus 1B" (The "Calculus 1B" course is a continuation of the "Calculus 1A" course.)

This is a review of mathematical substitution in integrals. The purpose of this review is to provide a summary of the techniques and to provide a list of examples of integrals that can be solved using substitution. The review is intended for students who are taking the course and who are interested in learning more about the techniques.

Mathematical substitution is a technique for evaluating integrals. It is based on the idea that if a function $f(x)$ can be written as $f(g(x)) \cdot g'(x)$, then the integral of $f(x)$ can be found by substituting $u = g(x)$ and integrating with respect to u . This technique is useful for a wide variety of functions, including trigonometric functions, exponential functions, and logarithmic functions. The review provides a list of examples of integrals that can be solved using substitution, along with the steps to solve each integral. The review also includes a list of common substitutions that are used in integration.

Key words: mathematical substitution, integration, calculus

Introduction

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