CSCI / MATH 2072U - Assignment 1

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1 Latex Examples

1.1 Fundamental Theorem of Calculus

The Fundamental Theorem of Calculus states that there exists a function $G(x)$ defined by

$$G(x) = \int_a^x g(t)\, dt$$

such that

$$\frac{d}{dx}G(x) = g(x)$$

The function G(x) is an antiderivative of g(x)

1.2 Equation of a Single Variable

The following equation is an equation of a single variable t

$$\sqrt{t}\sin t + e^{2t} = 1$$

1.3 Order Notation

The "big O" notation, such as,

$$\mathcal{O}(N \log N)$$

provides the limiting behavior of a function or the complexity of an algorithm.

1.4 Greek Alphabet

Some letters in the Greek alphabet are alpha α, beta, β, gamma, γ, delta δ, pi, π, xi, ξ, epsilon, ϵ, and sigma, σ.