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 F(x) defined by:

$$F(x) = \int_a^x f(t)dt$$

such that

$$\frac{d}{dx}F(x) = f(x)$$

The function F(x) is an antiderivative of f(x).

1.2 Equation of a Single Variable

The following equation is an equation of a single variable x:

$$\sqrt{x}\cos(x) + e^{3x} = 1$$

1.3 Order Notation

The "big O" notation, such as,

$$\mathcal{O}(NlogN)$$

provides the limiting behaviour of a function or the complexity of the 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.