DIPPING OUR TOES IN WITH LATEX: USING AND MODIFYING A TEMPLATE

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1. A section.

1.1. **A subsection.**

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2. A New Section.

Theorem 2.1 (1st fundamental theorem)**.** *one of the antiderivatives of some function f may be obtained as the integral of f with a variable bound of integration such that (d/dx)*$\int_a^x f(t)\,dt = f(x)$

Proof. Let X0 be in [a,b] and $e > 0$ be given. Since f is continuous at X0 then, there exists $h > 0$ such that $|t-X0| < h$ implies $|f(t)-f(X0)| < e$. Thus, f(X0) = 1/(X-X0)($\int_{X0}^{X} f(X0)dt)whereXdoesn'tequalX0.Foranj$ X0—¡h, such$thatX = minX, X0andX2 = maxX, X0.So, wehave$ □

3. A Final Section

3.1. **A few more environments.**

Definition 3.1. A group in abstract algebra is a set equipped with a binary operation that is associative, had an identity element, and every element has an inverse. This can be used to describe a Rubik cube and every different possible transformation you can do to it.

Remark 3.1. $\int_a^a f(t) = 1$
A numbered list:

(1) Cannoli
(2) Eclair
(3) Cheesecake

Abstract. This exercise helped me learn the basics of latex and prepare myself for the rest of this class.

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