Maths Notes With LaTeX

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1 Introduction

Welcome to the template! Let's add a definition.

> **Definition 1.1: Limit of a function**
>
> If, for every $\epsilon > 0$ there exists some $\delta > 0$ such $0 < |x - a| < \delta$ implies $|f(x) - L| < \epsilon$ then we say that the function f has a limit of L at a and we write
> $$\lim_{x \to a} f(x) = L.$$

And let's also follow it up with a theorem:

> **Theorem 1.1: Fermat's Last Theorem**
>
> The equation
> $$a^n + b^n = c^n$$
> has no integer solutions for every integer $n > 2$.

Proof. I have discovered a truly marvellous proof of this, which this margin is too narrow to contain. □

But this immediately implies the following corollary:

Corollary 1.1. *Riemann's Every non-trivial zero of the Riemann ζ function has real part one-half.*

Which we can demonstrate with an example:

> **Example 1.1: Poincare**
>
> Consider a simply connected, closed 3-manifold. Notice that it is homeomorphic to the 3-sphere!

Lemma 1.1. *This is a lemma.*

Proposition 1.1. *This is a proposition.*

Note. This is a note.