Senior Thesis in Mathematics

Absolutely Fascinating Thesis Title

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Abstract

In this paper we don’t really do much. However, there are a lot of real theorems that still need to be proved. That is what you will probably do in your thesis.
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Chapter 1

Boring Title for the First Chapter

Let us do some math:
\[ \Delta(h) = h(1) \otimes h(2) \]
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Here is how you declare a theorem:

**Theorem 1.1** A Big Fat Theorem. We assert that the following is true:
\[ x = 1, y = 1 \Rightarrow x + y = 2 \] (1.1)

Let us first consider:

**Lemma 1.2** A Small but Important Lemma. If \( x = a, \) and \( y = b, \) then \( x + y = a + b. \)

We can then see that Lemma 1.2 implies Theorem 1.1 by letting \( a = 1 \) and \( b = 1 \) in Equation (1.1). See how we refer to a previously labeled item in the text?

### 1.1 A delightful new section

Some text for the section should go here. And let us look at footnotes\(^1\)\(^2\)

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\(^1\)This is one way to use a footnote.
\(^2\)Here is a second way to introduce a footnote
Theorem 1.3 \textit{hmmm}

Here is how you call the proof environment:

\textbf{Proof} \ hmmmm\hfill $\blacksquare$
Chapter 2

Cooler Title for the Second Chapter

As we saw in Chapter 1 everything can be made to be complicated. (See, for example, Figure 2.1) This is usually not a good idea unless you want to lose your audience.

Most importantly, NEVER DIVIDE BY ZERO unless, of course, you are wearing your protective divide-by-zero suit (See [1] for the terrible consequences which might result. And this is how you cite multiple references: [1] [2] [3]. And if you wanted to, you could refer to specific pages: [1, pages 567–569]).

2.1  Another fascinating section

Some text needs to go here.

2.1.1  And sometimes you will need subsections...

More text goes here.
Figure 2.1: Graphics can really snaz it up!
Bibliography


