Theorems!

1. Introduction

Lemma 1.1 (Pythagoras): In a right angled triangle,

$$a^2 + b^2 = c^2$$
.

The above theorem is 1.1

Theorem 1.2 (WLLN): Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

Proof: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim aeque doleamus animo, cum corpore dolemus, fieri.

$$\int_{-\infty}^{\infty} \frac{\sin(x)}{x} \, \mathrm{d}x = \pi$$

Lorem ipsum dolor sit amet.

Corollary 1.2.1: Lorem ipsum dolor sit.

Corollary 1.2.2: This corollary will be referenced later, in Lemma 2.1.

Example: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Lemma 1.3: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

 $\textbf{Notation I}: \ \ \text{Lorem ipsum dolor sit amet}.$

1.1. Sub-Heading

Definition 1.1.1: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et.

Notation II: Lorem ipsum dolor sit amet, consectetur adipiscing.

Example (Lorem ipsum dolor.): Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Remark: Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Theorem 1.4: Lorem ipsum dolor sit amet, consectetur.

Proof 1.4.1: Lorem ipsum dolor sit.

Proof 1.4.2: Lorem ipsum dolor sit amet. □

2. Heading

Lemma 2.1: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut. Refer to Corollary 1.2.2.

Remark: Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Corollary 2.1.1 (Lorem ipsum dolor sit.): Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor.

Example 2.1.1.a: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

Example 2.1.1.b: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Notation III: Lorem ipsum dolor sit amet.