Demonstrating Numbered Theorems, Definitions, Corollaries, and Lemmas

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Introduction

In this document, we will present various mathematical results, such as theorems, lemmas, definitions, and corollaries, all properly numbered.

1 Theorems, Definitions, Lemmas, and Corollaries

Theorem Example

Theorem 1.1. *If a and b are two real numbers, then their sum is commutative, i.e.,*

$$a + b = b + a.$$

Lemma Example

Lemma 1.2. *Let a and b be real numbers. If $a + b = 0$, then $b = -a$.*

Corollary Example

Corollary 1.3. *If $a + b = 0$ and $a = 2$, then $b = -2$.*

Definition Example

Definition 1.4. *A number is called even if it is divisible by 2. In other words, a number n is even if there exists an integer k such that*

$$n = 2k.$$

2 Conclusion

This document demonstrates how to properly number and present theorems, lemmas, definitions, and corollaries in LaTeX using the ‘amsthm‘ package. You can easily refer to these results within your document, and LaTeX will handle the numbering automatically.