typst-theorems

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https://github.com/sahasatvik/typst-theorems

Contents

1. Introduction

This document only includes the examples given in the manual; each one of these has been explained in full detail there.

2. Feature demonstration

Theorem 2.1 (Euclid): There are infinitely many primes.

Lemma 2.2: If n divides both x and y, it also divides $x - y$.

Corollary 2.2.1: If n divides two consecutive natural numbers, then $n = 1$.

2.1. Suppressing numbering

Example: The numbers 2, 3, and 17 are prime.

Lemma: The square of any even number is divisible by 4.

Lemma 2.1.1: The square of any odd number is one more than a multiple of 4.

2.2. Limiting depth

> **Definition 2.1** (Prime numbers): A natural number is called a *prime number* if it is greater than 1 can cannot be written as the product of two smaller natural numbers.

> **Definition 2.2** (Composite numbers): A natural number is called a *composite number* if it is greater than 1 and not prime.

Example 2.2.0.0.1: The numbers 4, 6, and 42 are composite.

2.3. Custom formatting

> **Lemma 2.3.1**: All even natural numbers greater than 2 are composite.

PROOF: Every even natural number n can be written as the product of the natural numbers 2 and $n\,/\,2$. When $n > 2$, both of these are smaller than 2 itself. □

Notation (I): The variable p is reserved for prime numbers.

2.4. Labels and references

Recall that there are infinitely many prime numbers via Theorem (**2.1**).

You can reference future environments too, like Corollary 2.3.1.1.

2.5. Overriding base

> **Corollary 2.3.1.1**: All primes greater than 2 are odd.

PROOF OF 2.3.1.1.1: Trivial. □