Introduction to Abstract Algebra

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1 Introduction

1.1 Relations

1.2 Induction

> **Theorem 1.2.1 ▶ Principle of Mathematical Induction**
>
> For each $n \in \mathbb{N}$, let $P(n)$ denote a statement. Suppose that:
> 1. $P(1)$ is true, and
> 2. for each n, if $P(n)$ is true, then $P(n+1)$ is true.
>
> Then $P(n)$ is true for all $n \in \mathbb{N}$.