

Notes for Capstone: Discrete Math

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3.1. Predicates and Quantified Statements I

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3.3. Statements with Multiple Quantifiers

3.4. Arguments with Quantified Statements

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4.1. Direct Proof and Counterexample I: Introduction

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4.8. Application: Algorithms

5. Sequences, Mathematical Induction, and Recursion

5.1. Sequences

Definition 5.1.1 (Sequence). A sequence is a function whose domain is either all the integers between two given integers or all the integers greater than or equal to a given integer.

My definition: A sequence is a list of numbers. The list can be finite or infinite. The list can be indexed by the natural numbers or the integers.

5.2. Mathematical Induction I

5.3. Mathematical Induction II

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5.9. General Recursive Definitions and Structural Induction

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6.1. Set Theory: Definitions and the Element Method of Proof

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