

A Summary of Mathematical Logic

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Contents

1	Formal Languages	1
1.1	What is a formal language?	1

Chapter 1

Formal Languages

1.1 What is a formal language?

Definition 1. Let A be a set. A *language with alphabet A* is a collection \mathfrak{L} which is consisted of the followings

alphabet: A
expressions: finite sequences in A
texts: finite sequence of expressions

Definition 2. For a language \mathfrak{L} , a *metalanguage* is consisted of *syntax* and *semantics*.