## Introduction

The aim of this book is to present some the basic mathematics that is needed by computer scientists. The reader is not expected to be a mathematician and we hope will find what follows useful.

Just a word of warning. Unless you are one of the irritating minority mathematics is hard. You cannot just read a mathematics book like a novel. The combination of the compression made by the symbols used and the precision of the argument makes this impossible. It takes time and effort to decipher the mathematics and understand the meaning.

It is a little like programming, it takes time to understand a lot of code and you never understand how to write code by just reading a manual - you have to do it! Mathematics is exactly the same, you need to do it.