Solutions to Michael Spivak's Calculus

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Preface

What is the point of writing a solution manual when one, written by the author, has already existed?
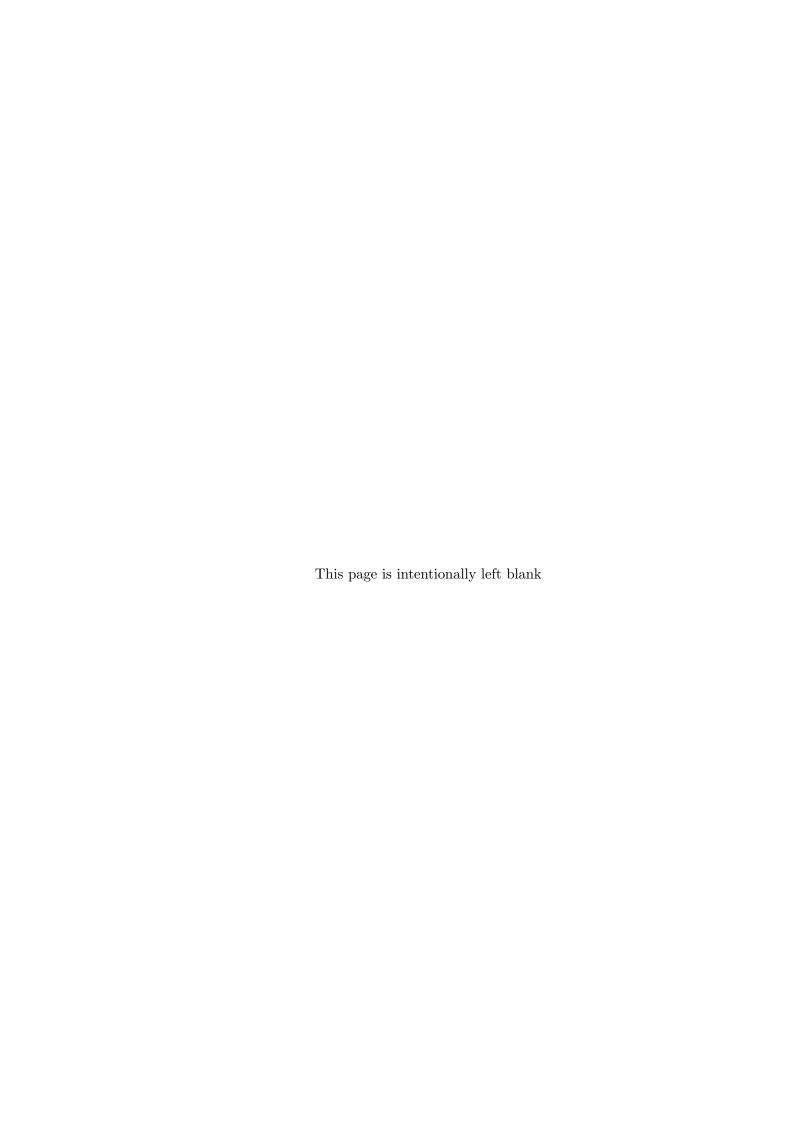
The choice has two personal reasons.

Reason #1: I was first enrolled in Aalto University School of Business back in 2012 as a freshman. Subsequently, I ascertained that the teaching of Aalto is really good for business students, but I am neither a businessman nor an any other type of student: I am a geek who loves his freedom of academic pursuits; therefore, writing the solution manual is simply the way I satisfy myself with one of the legendary books in mathematics.

Reason #2: I have a long history with the book. Since Calculus plays a really important role in Statistics, which eventually plays an important role in Economics(and almost every other fields of science), I searched intensively for a thorough book that *really* teaches Calculus without ommitting the details back when I was a freshman in 2012, and it turned out that Spivak was my choice. However, due to the already intensive teaching of my program, I barely had any time to read the book properly. Moreover, due to my status of not being a native Finnish citizen, I really had so many problems both in term of finance and of legality to be in Finland because of my staunch determination of not wanting to go back to my home country, Vietnam. This further prevents me from reading the book in an edifying way. And now after having acquainted myself with the basic of $\LaTeX\,2_\varepsilon$, I really want to do as many projects in mathematics as I can, and Spivak's Calculus is obviously my first choice.
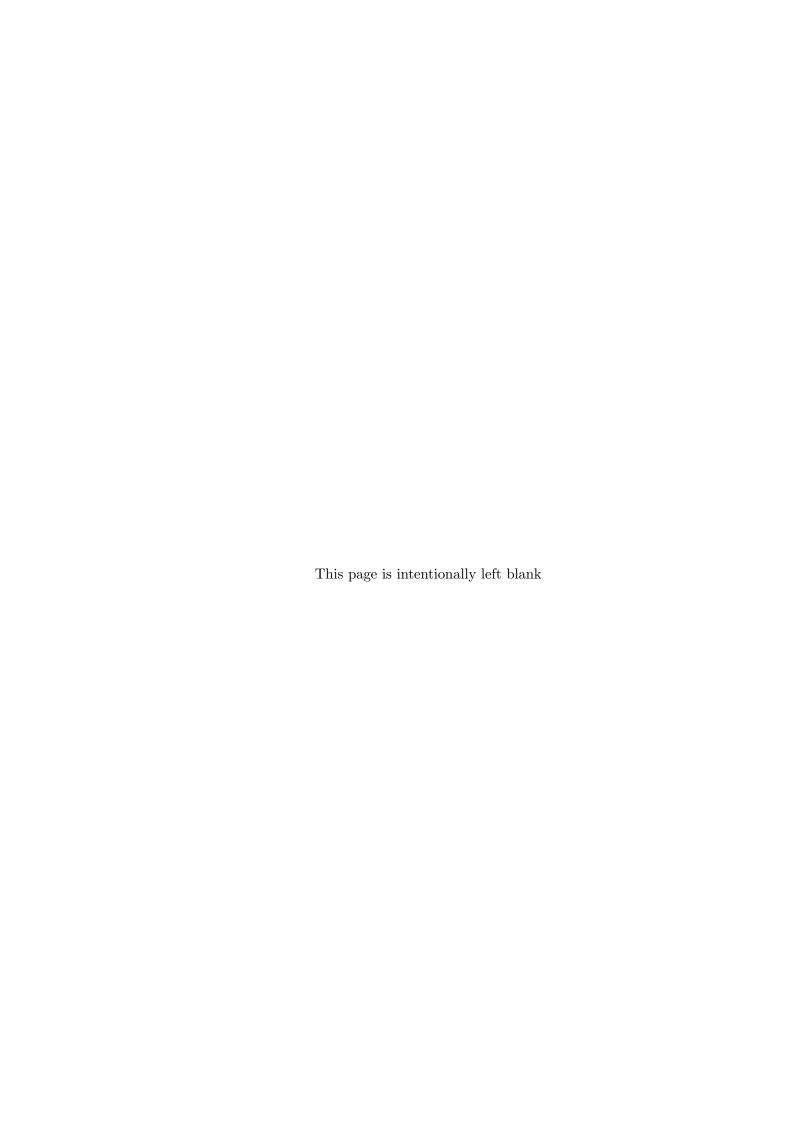
Moreover, I really do believe that originality is not something that comes from following a particular way of doing things but rather a strange, personal journey made, written and discovered on your own regardless of how silly and redundant it might be!

Vantaa, Finland
25th June,2017.

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Part I

Prologue

I held every man a debtor
to his profession...

Francis Bacon.

Chapter 1

Basic properties of number

Problem 1.1. This is problem 1.

Problem 1.2. This is problem 2.