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This book will help you improve your grades in math and, indeed, in any technical subject, by showing you a new method of organizing, *hence thinking about*, mathematical ideas — a method that will give you a new and much more efficient way of approaching the task of solving problems.

Warning! The method is controversial, and possibly revolutionary! It is based on the assumption that, in a world in which more than 25,000 mathematics papers are published each year, the traditional approach to learning a mathematical subject — start at the first page, proceed to the second, then the third, etc. — is simply no longer viable. The key goal in any mathematics course should be *efficiency in problem solving* during the course, and weeks, months, years after it, and that means making the material as easily look-up-able as possible. The key goal should not be “somehow memorize it so you can demonstrate knowledge of it on exams.” To coin a phrase, *Memorized knowledge is no longer where it's at!* Look-up-ability is. Whatever *can* be made look-up-able, *should* be made look-up-able. The Environments described in this book are precisely ways of making course material look-up-able in a highly efficient way.

Using the method I was able to raise my average math grade of B– as an undergraduate, to a solid A as a graduate student. The method *can* be implemented on a computer, but it in no way requires that you do so in order to benefit from it: you can implement it using nothing more than pencil and paper.

This book is an application of some of the ideas in Peter Schorer's *How to Create Zero-Search-Time Computer Documentation* (Peer-to-Peer Communications, 1995, now published by Anna Books; available online at www.zsthelp.com).

You don't need to read all of this book in order to benefit from it. If your time is limited, you can start with chapters 3 and 4, and thereafter use the list of subtitles which appear when you download each chapter, plus the extensive Index, to answer additional questions that may arise.

Welcome to a new way of doing math! May you improve your grades as much as I did!

A Note to Professional Mathematicians

This book contains a number of criticisms of teaching and textbook writing as currently practiced by the academic mathematics community. Common decency demands that I allow members of this community a chance to reply to these criticisms. Therefore, at least five pages in future editions of this book will be made available for such replies.