Foreword

This book contains complete solutions to the more than six hundred exercises in the authors' book: **An Invitation to Operator Theory**, American Mathematical Society, 2002. The problems have been spread over eleven chapters following the format of that book. Each problem is identified by a triplet of numbers $x.y.z$; x designates the chapter, y the section, and z the exercise. For instance, Problem 3.4.7 indicates Exercise 7 in Section 4 of Chapter 3.

All solutions are based on the material covered in the text with frequent references to the results in the text. For example, a reference to Theorem 5.9 refers to Theorem 5.9 and a reference to Example 6.21 refers to Example 6.21 in the book **An Invitation to Operator Theory**. We have added an extra amount of material to many solutions in order to make this book as self-contained as possible.

This problem book will be beneficial to students only if they use it "properly," that is to say, if students look at a solution of a problem *only after* trying very hard to solve the problem. Students will do themselves great injustice by reading a solution without any prior attempt on the problem. It should be a real challenge to students to produce solutions which are different from the ones presented here.

Due to the extra material incorporated into the problems, the book can be used as a companion supplement to any text used for the standard functional analysis graduate courses. In addition, this solution book can be used as a reference not only for mathematical subjects but also for other disciplines that rely on functional analytic or measure theoretic techniques.

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