Preface

The original inspiration for this book was a series of bridge (the card game) books by David Bird. These books feature a mixture of amusing characters (such as a pompous abbot, a clever parrot, and Robin Hood) and interesting bridge hands. Could something similar be done for mathematics? If so, what should be the subject matter? My answer to this question is the present book.

For many years at M.I.T. I taught or co-taught the freshman seminar 18.S34, later called 18.A34, on Mathematical Problem Solving, focused on the Putnam Competition. During the course of teaching this seminar I accumulated lots of interesting problems and mathematical facts, as well as some dumb jokes. This provided most of the material herein.

The intended audience for this book is mathematicians at all levels beginning with undergraduates, and even high school students, who are adept at solving challenging problems such as those appearing on the IMO or Putnam Competition. The primary purpose of the problems in this book is not didactic, but rather to entertain. Nevertheless I hope that at least some readers will learn some interesting and useful mathematics. For readers primarily interested in the mathematical content of this book, I have included a List of Problems preceding each chapter.

I am grateful to Kevin Carde for his careful reading of an earlier manuscript of this book. I also wish to thank Federico Ardila, an anonymous reviewer, and my editor Sergei Gelfand for their helpful suggestions.

NOTE TO READER. I have taken some liberties with the use of direct quotations, i.e., material in quotation marks, for the sake of readability. For example, when Professor Blakeley says "I will denote it by $\boldsymbol{S}$," it should be understood that he has written the symbol $\boldsymbol{S}$ (or some blackboard equivalent) on the blackboard. Similarly, if for instance someone refers to a numbered equation in the text, one should understand that they have done something like point to this equation on the board.