

Introduction



This book consists of three parts: fundamental knowledge, basic methods and typical problems. These three parts introduce the fundamental knowledge of solving combinatorial problems, the important solutions to combinatorial problems and some typical problems with often-used solutions in the high school mathematical competition respectively.

In each chapter there are necessary examples and exercises with solutions. These examples and exercises are of the same level of difficulty as the China Mathematical League Competitions which are selected from mathematical competitions at home and abroad in recent years. Some test questions are created by the author himself and a few easy questions in China Mathematical Olympiad (CMO) and IMO are also included. In this book, the author pay attention to leading readers to explore, analyze and summarize the ideas and methods of solving combinatorial problems. The readers' mathematical concepts and abilities will be improved remarkably after acquiring knowledge from this book.