

# Singapore Mathematical Olympiad Selection Test

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*The Mathematical Olympiad Handbook - A.*  
Gardiner 1997

The book contains problems from the first 32  
British Mathematical Olympiad (BMO) papers

1965-96 and gives hints and outline solutions to each problem from 1975 onwards. An overview is given of the basic mathematical skills needed, and a list of books for further reading is provided. Working through the exercises provides a valuable source of extension and enrichment for all pupils and adults interested in mathematics.

Selected Problems of the Vietnamese Mathematical Olympiad (1962-2009) - Hai Chau Le 2010

Vietnam has actively organized the National Competition in Mathematics and since 1962, the Vietnamese Mathematical Olympiad (VMO). On the global stage, Vietnam has also competed in the International Mathematical Olympiad (IMO) since 1974 and constantly emerged as one of the top ten. To inspire and further challenge readers, we have gathered in this book selected problems of the VMO from 1962 to 2008. A number of Selection Test problems are also included to aid in the formation and training of a

national team for IMO. The book is highly useful for high school students and teachers, coaches and instructors preparing for mathematical olympiads, as well as non-experts simply interested in having the edge over their opponents in mathematical competitions.

*Mathematical Olympiad Challenges* - Titu Andreescu 2013-12-01

Mathematical Olympiad Challenges is a rich collection of problems put together by two experienced and well-known professors and coaches of the U.S. International Mathematical Olympiad Team. Hundreds of beautiful, challenging, and instructive problems from algebra, geometry, trigonometry, combinatorics, and number theory were selected from numerous mathematical competitions and journals. An important feature of the work is the comprehensive background material provided with each grouping of problems. The problems are clustered by topic into self-contained sections with solutions provided separately. All

sections start with an essay discussing basic facts and one or two representative examples. A list of carefully chosen problems follows and the reader is invited to take them on. Additionally, historical insights and asides are presented to stimulate further inquiry. The emphasis throughout is on encouraging readers to move away from routine exercises and memorized algorithms toward creative solutions to open-ended problems. Aimed at motivated high school and beginning college students and instructors, this work can be used as a text for advanced problem-solving courses, for self-study, or as a resource for teachers and students training for mathematical competitions and for teacher professional development, seminars, and workshops.

**Teaching Secondary School Mathematics: Techniques And Enrichment** - Alfred S

Posamentier 2020-09-18

The primary aim of this book is to provide teachers of mathematics with all the tools they

would need to conduct most effective mathematics instruction. The book guides teachers through the all-important planning process, which includes short and long-term planning as well as constructing most effective lessons, with an emphasis on motivation, classroom management, emphasizing problem-solving techniques, assessment, enriching instruction for students at all levels, and introducing relevant extracurricular mathematics activities. Technology applications are woven throughout the text. A unique feature of this book is the second half, which provides 125 highly motivating enrichment units for all levels of secondary school mathematics. Many years of proven success makes this book essential for both pre-service and in-service mathematics teachers.

[PISA Take the Test Sample Questions from OECD's PISA Assessments](#) - OECD 2009-02-02

This book presents all the publicly available questions from the PISA surveys. Some of these

questions were used in the PISA 2000, 2003 and 2006 surveys and others were used in developing and trying out the assessment.

Singapore Math, Grade 4 - Thinking Kids

2015-01-05

Singapore Math creates a deep understanding of each key math concept, is a direct complement to the current textbooks used in

Singapore, includes an introduction explaining the Singapore Math method, and includes step-by-step solutions in the answer key. Singapore Math, for students in grades 2 to 5, provides math practice while developing analytical and problem-solving skills. Learning objectives are provided to identify what students should know after completing each unit, and assessments are included to ensure that learners obtain a thorough understanding of mathematical concepts. Perfect as a supplement to classroom work, these workbooks will boost confidence in problem-solving and critical-thinking skills!

**Singapore Math and Science Education**

**Innovation** - Oon Seng Tan 2021-09-05

This edited volume explores key areas of interests in Singapore math and science education including issues on teacher education, pedagogy, curriculum, assessment, teaching practices, applied learning, ecology of learning, talent grooming, culture of science and math, vocational education and STEM. It presents to policymakers and educators a clear picture of the education scene in Singapore and insights into the role of math and science education in helping the country excel beyond international studies such as PISA, the pedagogical and curricula advancements in math and science learning, and the research and practices that give Singaporean students the competitive edge in facing the uncertain and challenging landscape of the future.

**Lecture Notes on Mathematical Olympiad Courses** - Jiagu Xu 2010

Olympiad mathematics is not a collection of techniques of solving mathematical problems but

a system for advancing mathematical education. This book is based on the lecture notes of the mathematical Olympiad training courses conducted by the author in Singapore. Its scope and depth not only covers and exceeds the usual syllabus, but introduces a variety concepts and methods in modern mathematics. In each lecture, the concepts, theories and methods are taken as the core. The examples are served to explain and enrich their intension and to indicate their applications. Besides, appropriate number of test questions is available for reader''s practice and testing purpose. Their detailed solutions are also conveniently provided. The examples are not very complicated so that readers can easily understand. There are many real competition questions included which students can use to verify their abilities. These test questions are from many countries, e.g. China, Russia, USA, Singapore, etc. In particular, the reader can find many questions from China, if he is interested in understanding

mathematical Olympiad in China. This book serves as a useful textbook of mathematical Olympiad courses, or as a reference book for related teachers and researchers. Errata(s). Errata. Sample Chapter(s). Lecture 1: Operations on Rational Numbers (145k). Request Inspection Copy. Contents: .: Operations on Rational Numbers; Linear Equations of Single Variable; Multiplication Formulae; Absolute Value and Its Applications; Congruence of Triangles; Similarity of Triangles; Divisions of Polynomials; Solutions to Testing Questions; and other chapters. Readership: Mathematics students, school teachers, college lecturers, university professors; mathematics enthusiasts

*Mathematical Olympiad in China (2007-2008)* - Bin Xiong 2009

The International Mathematical Olympiad (IMO) is a competition for high school students. China has taken part in the IMO 21 times since 1985 and has won the top ranking for countries 14

times, with a multitude of golds for individual students. The six students China has sent every year were selected from 20 to 30 students among approximately 130 students who took part in the annual China Mathematical Competition during the winter months. This volume comprises a collection of original problems with solutions that China used to train their Olympiad team in the years from 2006 to 2008. Mathematical Olympiad problems with solutions for the years 2002-2006 appear in an earlier volume, *Mathematical Olympiad in China. 30 Mock Test Series for Olympiads Class 7 Science, Mathematics, English, Logical Reasoning, GK & Cyber 2nd Edition* - Disha Experts 2018-11-19

The Revised & Updated 2nd Edition of 30 Mock Test Series for Olympiads Class 7 Science, Maths, English, Logical Reasoning, GK & Cyber is first of its kind book preparatory on Olympiad in many ways and designed to give the student a hands on experience for any Regional / National/

International Olympiads. The book contains 30 Mock tests, each of 30 - 40 questions with detailed explanations. These books will also act as an ASSESSMENT OF SCHOOL LEARNING as they are completely based on the respective class syllabus and expectations. This book will also be very useful in building a strong foundation for IIT-JEE/ NEET & NTSE.

**Singapore Math, Grade 2 - Thinking Kids**  
2015-01-05

Singapore Math creates a deep understanding of each key math concept, is a direct complement to the current textbooks used in Singapore, includes an introduction explaining the Singapore Math method, and includes step-by-step solutions in the answer key. Singapore Math, for students in grades 2 to 5, provides math practice while developing analytical and problem-solving skills. Learning objectives are provided to identify what students should know after completing each unit, and assessments are included to ensure that learners obtain a

thorough understanding of mathematical concepts. Perfect as a supplement to classroom work, these workbooks will boost confidence in problem-solving and critical-thinking skills!

**The Mirror** - 1988

*A First Step to Mathematical Olympiad Problems*

- Derek Holton 2009-07-30

See also A SECOND STEP TO MATHEMATICAL OLYMPIAD PROBLEMS The International Mathematical Olympiad (IMO) is an annual international mathematics competition held for pre-collegiate students. It is also the oldest of the international science olympiads, and competition for places is particularly fierce. This book is an amalgamation of the first 8 of 15 booklets originally produced to guide students intending to contend for placement on their country's IMO team. The material contained in this book provides an introduction to the main mathematical topics covered in the IMO, which are: Combinatorics, Geometry and Number

Theory. In addition, there is a special emphasis on how to approach unseen questions in Mathematics, and model the writing of proofs. Full answers are given to all questions. Though *A First Step to Mathematical Olympiad Problems* is written from the perspective of a mathematician, it is written in a way that makes it easily comprehensible to adolescents. This book is also a must-read for coaches and instructors of mathematical competitions.

**Euclidean Geometry in Mathematical Olympiads** - Evan Chen 2021-08-23

This is a challenging problem-solving book in Euclidean geometry, assuming nothing of the reader other than a good deal of courage. Topics covered included cyclic quadrilaterals, power of a point, homothety, triangle centers; along the way the reader will meet such classical gems as the nine-point circle, the Simson line, the symmedian and the mixtilinear incircle, as well as the theorems of Euler, Ceva, Menelaus, and Pascal. Another part is dedicated to the use of

complex numbers and barycentric coordinates, granting the reader both a traditional and computational viewpoint of the material. The final part consists of some more advanced topics, such as inversion in the plane, the cross ratio and projective transformations, and the theory of the complete quadrilateral. The exposition is friendly and relaxed, and accompanied by over 300 beautifully drawn figures. The emphasis of this book is placed squarely on the problems. Each chapter contains carefully chosen worked examples, which explain not only the solutions to the problems but also describe in close detail how one would invent the solution to begin with. The text contains a selection of 300 practice problems of varying difficulty from contests around the world, with extensive hints and selected solutions. This book is especially suitable for students preparing for national or international mathematical olympiads or for teachers looking for a text for an honor class.

## **Math Challenge the Singapore Way: Grade 5**

- 2012-01-01

A new workbook series based on the popular Singapore Math curriculum.

### **Putnam and Beyond** - Răzvan Gelca

2017-09-19

This book takes the reader on a journey through the world of college mathematics, focusing on some of the most important concepts and results in the theories of polynomials, linear algebra, real analysis, differential equations, coordinate geometry, trigonometry, elementary number theory, combinatorics, and probability. Preliminary material provides an overview of common methods of proof: argument by contradiction, mathematical induction, pigeonhole principle, ordered sets, and invariants. Each chapter systematically presents a single subject within which problems are clustered in each section according to the specific topic. The exposition is driven by nearly 1300 problems and examples chosen from

numerous sources from around the world; many original contributions come from the authors. The source, author, and historical background are cited whenever possible. Complete solutions to all problems are given at the end of the book. This second edition includes new sections on quadratic polynomials, curves in the plane, quadratic fields, combinatorics of numbers, and graph theory, and added problems or theoretical expansion of sections on polynomials, matrices, abstract algebra, limits of sequences and functions, derivatives and their applications, Stokes' theorem, analytical geometry, combinatorial geometry, and counting strategies. Using the W.L. Putnam Mathematical Competition for undergraduates as an inspiring symbol to build an appropriate math background for graduate studies in pure or applied mathematics, the reader is eased into transitioning from problem-solving at the high school level to the university and beyond, that is, to mathematical research. This work may be

used as a study guide for the Putnam exam, as a text for many different problem-solving courses, and as a source of problems for standard courses in undergraduate mathematics. Putnam and Beyond is organized for independent study by undergraduate and graduate students, as well as teachers and researchers in the physical sciences who wish to expand their mathematical horizons.

*Mathematical Olympiad In China (2011-2014): Problems And Solutions* - Bin Xiong 2018-03-22  
The International Mathematical Olympiad (IMO) is a very important competition for high school students. China has taken part in the IMO 31 times since 1985 and has won the top ranking for countries 19 times, with a multitude of gold medals for individual students. The six students China has sent every year were selected from 60 students among approximately 300 students who took part in the annual China Mathematical Competition during the winter months. This book includes the problems and solutions of the most

important mathematical competitions from 2010 to 2014 in China, such as China Mathematical Competition, China Mathematical Olympiad, China Girls' Mathematical Olympiad. These problems are almost exclusively created by the experts who are engaged in mathematical competition teaching and researching. Some of the solutions are from national training team and national team members, their wonderful solutions being the feature of this book. This book is useful to mathematics fans, middle school students engaged in mathematical competition, coaches in mathematics teaching and teachers setting up math elective courses.

**Mathematics Education** - Khoon Yoong Wong 2009

This title provides much food for thought and pointers to meet future challenges in mathematics education not only within Singapore, but also in other countries.

The William Lowell Putnam Mathematical Competition Problems and Solutions - Andrew

M. Gleason 1980

Back by popular demand, the MAA is pleased to reissue this outstanding collection of problems and solutions from the Putnam Competitions covering the years 1938-1964. Problemists the world over, including all past and future Putnam Competitors, will revel in mastering the difficulties posed by this collection of problems from the first 25 William Lowell Putnam Competitions.

**USA and International Mathematical Olympiads, 2000** - Titu Andreescu 2001

**The Art of Problem Solving, Volume 1** - Sandor Lehoczky 2006-08-01

"...offer[s] a challenging exploration of problem solving mathematics and preparation for programs such as MATHCOUNTS and the American Mathematics Competition."--Back cover

*Encyclopedia of Diversity in Education* - James A. Banks 2012-05-24

Presents research and statistics, case studies and best practices, policies and programs at pre- and post-secondary levels. Prepub price \$535.00 valid to 21.07.12, then \$595.00.

**The IMO Compendium** - Dušan Djukić

2011-05-05

"The IMO Compendium" is the ultimate collection of challenging high-school-level mathematics problems and is an invaluable resource not only for high-school students preparing for mathematics competitions, but for anyone who loves and appreciates mathematics. The International Mathematical Olympiad (IMO), nearing its 50th anniversary, has become the most popular and prestigious competition for high-school students interested in mathematics. Only six students from each participating country are given the honor of participating in this competition every year. The IMO represents not only a great opportunity to tackle interesting and challenging mathematics problems, it also offers a way for high school students to measure

up with students from the rest of the world. Until the first edition of this book appearing in 2006, it has been almost impossible to obtain a complete collection of the problems proposed at the IMO in book form. "The IMO Compendium" is the result of a collaboration between four former IMO participants from Yugoslavia, now Serbia and Montenegro, to rescue these problems from old and scattered manuscripts, and produce the ultimate source of IMO practice problems. This book attempts to gather all the problems and solutions appearing on the IMO through 2009. This second edition contains 143 new problems, picking up where the 1959-2004 edition has left off.

**Mathematics Education** - 2009

**Communicating Science to the Public** - Leo Tan Wee Hin 2014-07-24

This book explores effective approaches for communicating science to the public in developing countries. Offering multiple

perspectives on this important topic, it features 17 chapters that represent the efforts of 23 authors from eight countries: Australia, Bangladesh, India, Ireland, New Zealand, USA, Singapore and South Africa. Inside, readers will find a diversity of approaches to communicate science to the public. The book also highlights some of the challenges that science communicators, science policy makers, science teachers, university academics in the sciences and even entrepreneurs may face in their attempts to boost science literacy levels in their countries. In addition, it shares several best practices from the developed world that may help readers create communication initiatives that can lead to increased engagement with science in communities in the Asia Pacific region and beyond. Given the pervasive influence of science and technology in today's society, their impact will only increase in the years to come as the world becomes more globalized and the economies of countries become more inter-

linked. This book will be a useful source of reference for developing countries looking to tap into the potential of science for nation building and effectively engage their communities to better understand science and technology. Supported by the Pacific Science Association, Hawaii.

*The USSR Olympiad Problem Book* - D. O. Shklarsky 2013-04-15

Over 300 challenging problems in algebra, arithmetic, elementary number theory and trigonometry, selected from Mathematical Olympiads held at Moscow University. Only high school math needed. Includes complete solutions. Features 27 black-and-white illustrations. 1962 edition.

**Selected Problems Of The Vietnamese Mathematical Olympiad (1962-2009)** - Hai Chau Le 2010-09-23

Vietnam has actively organized the National Competition in Mathematics and since 1962, the Vietnamese Mathematical Olympiad (VMO). On

the global stage, Vietnam has also competed in the International Mathematical Olympiad (IMO) since 1974 and constantly emerged as one of the top ten. To inspire and further challenge readers, we have gathered in this book problems of various degrees of difficulty of the VMO from 1962 to 2009. The book is highly useful for high school students and teachers, coaches and instructors preparing for mathematical olympiads, as well as non-experts simply interested in having the edge over their opponents in mathematical competitions.

McGraw-Hill's 10 ACT Practice Tests, Second Edition - Steven W. Dulan 2008-07-01

We want to give you the practice you need on the ACT McGraw-Hill's 10 ACT Practice Tests helps you gauge what the test measures, how it's structured, and how to budget your time in each section. Written by the founder and faculty of Advantage Education, one of America's most respected providers of school-based test-prep classes, this book provides you with the

intensive ACT practice that will help your scores improve from each test to the next. You'll be able to sharpen your skills, boost your confidence, reduce your stress-and to do your very best on test day. 10 complete sample ACT exams, with full explanations for every answer 10 sample writing prompts for the optional ACT essay portion Scoring Worksheets to help you calculate your total score for every test Expert guidance in prepping students for the ACT More practice and extra help online ACT is a registered trademark of ACT, Inc., which was not involved in the production of, and does not endorse, this product.

*Mathematical Olympiad in China (2009-2010)* - Bin Xiong 2013

The International Mathematical Olympiad (IMO) is a competition for high school students. China has taken part in the IMO 21 times since 1985 and has won the top ranking for countries 14 times, with a multitude of golds for individual students. The six students China has sent every

year were selected from 20 to 30 students among approximately 130 students who took part in the annual China Mathematical Competition during the winter months. This volume of comprises a collection of original problems with solutions that China used to train their Olympiad team in the years from 2009 to 2010. Mathematical Olympiad problems with solutions for the years 2002-2008 appear in an earlier volume, Mathematical Olympiad in China."

**Singapore Bulletin** - 1987

**Tests And Exams In Singapore Schools:  
What School Leaders, Teachers And Parents  
Need To Know** - Soh Kay Cheng 2017-09-22

Assessment, mainly in the form of tests and examinations, plays a critical role in the schooling of Singaporean students. The results are often used to make irrevocable decisions on the students' future education careers. This book is written with school leaders, teachers, and

parents in mind, with the view of helping them to better understand the processes and products of assessment via tests and exams. It is written in simple terms, using minimal technical terms, and introduces school leaders, teachers, and parents to essential concepts and principles of educational measurements which are relevant in the school context in Singapore. While existing books on educational measurement are academically-oriented and meant for formal training courses, this book makes self-study simple by using practical examples couched in layman's language. In addition, this book uses concrete examples and analogies to make the text reader-friendly. Contents: What Do We Need to Know About Tests and Exams? Why Must Students Take Exams? What Makes a Fair Exam? Answers Students Have to Choose Answers Students Have to Write T-Score: What Is It, and Why? What Is a Good Mark? Can Exams Be Trusted? Preparing for Exams and Coping with Exam Stress How Is Creativity

Assessed?Project Work: What Is It For and How Is It Assessed? Rubrics and Assessment for LearningAbove-Level Testing: Good or Bad?Grade Point Average: Beware of Its PitfallsWhat Is Assessment Literacy?How Assessment Literate Are You? Readership: School leaders, teachers, and parents in Singapore, as well as postgraduate students, teacher-trainees, and education officers.

Keywords: Test;Examinations;T-Score;Rubric;Assessment;Singapore;School;ExamsReview: Key Features: It covers important aspects of tests and examinations in Singapore schoolsIt is written in simple language, using a minimum of technical termsIt discusses issues from the perspective of tests/exams users

*International Maths Olympiad (IMO) WORKBOOK\_\_Class-3 - u-smartkid Academy*  
2017-06-29

This contains IMO Workbook for class 3. It contains practice questions, Past question paper with answer keys.It includes different of

questions.\*\*\* It contains different types of sections like \* Numbers, \* Addition and Subtraction, \* Multiplication and Division, \* Fractions, \* Geometry, \* Time, \* Money, \* Data Handling, \* Logical Reasoning \* Past Que Paper 2016\*\*\* This book helps to practice more & get confidence about exam.

**Singapore Math, Grade 3** - 2015-01-05  
Singapore Math creates a deep understanding of each key math concept, includes an introduction explaining the Singapore Math method, is a direct complement to the current textbooks used in Singapore, and includes step-by-step solutions in the answer key. Singapore Math, for students in grades 2 to 5, provides math practice while developing analytical and problem-solving skills. This series is correlated to Singapore Math textbooks and creates a deep understanding of each key math concept. Learning objectives are provided to identify what students should know after completing each unit, and assessments are included to ensure that learners obtain a

thorough understanding of mathematical concepts. Perfect as a supplement to classroom work, these workbooks will boost confidence in problem-solving and critical-thinking skills!

*Crux Mathematicorum* - 1990

Combinatorial Problems in Mathematical Competitions - Yao Zhang 2011

Annotation. This text provides basic knowledge on how to solve combinatorial problems in mathematical competitions, and also introduces important solutions to combinatorial problems and some typical problems with often-used solutions.

*Mathematical Olympiad In China (2019-2020): Problems And Solutions* - Bin Xiong 2022-09-29

In China, lots of excellent maths students take an active part in various maths contests and the best six senior high school students will be selected to form the IMO National Team to compete in the International Mathematical Olympiad. In the past ten years China's IMO

Team has achieved outstanding results — they won the first place almost every year. The authors of this book are coaches of the China national team. They are Xiong Bin, Yao Yijun, Qu Zhenhua et al. Those who took part in the translation work are Zhao Wei and Zhou Tianyou. The materials of this book come from a series of two books (in Chinese) on Forward to IMO: A Collection of Mathematical Olympiad Problems (2019-2020). It is a collection of problems and solutions of the major mathematical competitions in China. It provides a glimpse of how the China national team is selected and formed.

*Lecture Notes On Mathematical Olympiad Courses: For Senior Section - Volume 1* - Jiagu Xu 2012-03-21

Olympiad mathematics is not a collection of techniques of solving mathematical problems but a system for advancing mathematical education. This book is based on the lecture notes of the mathematical Olympiad training courses

conducted by the author in Singapore. Its scope and depth not only covers and beyond the usual syllabus, but introduces a variety of concepts and methods in modern mathematics as well. In each lecture, the concepts, theories and methods are taken as the core. The examples serve to explain and enrich their intentions and to indicate their applications. Besides, appropriate number of test questions is available for the readers' practice and testing purpose. Their detailed solutions are also conveniently provided. The examples are not very complicated so readers can easily understand. There are many real competition questions included which students can use to verify their abilities. These test questions originate from many countries all over the world. This book will serve as a useful textbook of mathematical Olympiad courses, a self-study lecture notes for students, or as a reference book for related teachers and researchers.

### **Lecture Notes On Mathematical Olympiad**

**Courses: For Senior Section - Volume 2 -**  
Jiagu Xu 2012-03-21

Olympiad mathematics is not a collection of techniques of solving mathematical problems but a system for advancing mathematical education. This book is based on the lecture notes of the mathematical Olympiad training courses conducted by the author in Singapore. Its scope and depth not only covers and beyond the usual syllabus, but introduces a variety of concepts and methods in modern mathematics as well. In each lecture, the concepts, theories and methods are taken as the core. The examples serve to explain and enrich their intentions and to indicate their applications. Besides, appropriate number of test questions is available for the readers' practice and testing purpose. Their detailed solutions are also conveniently provided. The examples are not very complicated so readers can easily understand. There are many real competition questions included which students can use to verify their abilities. These

test questions originate from many countries all over the world. This book will serve as a useful textbook of mathematical Olympiad courses, a self-study lecture notes for students, or as a reference book for related teachers and researchers.

**Integer Sequences** - Masum Billal 2021-06-18  
This book discusses special properties of integer sequences from a unique point of view. It generalizes common, well-known properties and connects them with sequences such as divisible sequences, Lucas sequences, Lehmer sequences, periods of sequences, lifting properties, and so on. The book presents theories derived by using elementary means and includes results not usually found in common number theory books. Considering the impact and usefulness of these theorems, the book also aims at being valuable for Olympiad level problem solving as well as regular research. This book will be of interest to students, researchers and faculty members alike.

**Magical Mathematics** - Persi Diaconis  
2015-10-13

"Magical Mathematics reveals the secrets of amazing, fun-to-perform card tricks--and the profound mathematical ideas behind them--that will astound even the most accomplished magician. Persi Diaconis and Ron Graham provide easy, step-by-step instructions for each trick, explaining how to set up the effect and offering tips on what to say and do while performing it. Each card trick introduces a new mathematical idea, and varying the tricks in turn takes readers to the very threshold of today's mathematical knowledge. For example, the Gilbreath principle--a fantastic effect where the cards remain in control despite being shuffled--is found to share an intimate connection with the Mandelbrot set. Other card tricks link to the mathematical secrets of combinatorics, graph theory, number theory, topology, the Riemann hypothesis, and even Fermat's last theorem. Diaconis and Graham are mathematicians as

well as skilled performers with decades of professional experience between them. In this book they share a wealth of conjuring lore, including some closely guarded secrets of legendary magicians. *Magical Mathematics* covers the mathematics of juggling and shows how the I Ching connects to the history of probability and magic tricks both old and new. It tells the stories--and reveals the best tricks--of

the eccentric and brilliant inventors of mathematical magic. *Magical Mathematics* exposes old gambling secrets through the mathematics of shuffling cards, explains the classic street-gambling scam of three-card monte, traces the history of mathematical magic back to the thirteenth century and the oldest mathematical trick--and much more"-