

## January 2014 Maths C1 Paper

The Scottish Book  
Convex Optimization  
Enumerative Combinatorics: Applied Linear Regression  
Mathematics for Machine Learning  
Nonlinear Dispersive Equations  
Bookseller  
Math with Bad Drawings  
Evaluation to Improve Learning  
Mathematics for the IB Diploma: Analysis and approaches  
SL  
English Language and Literature for the IB Diploma  
Mathematical Constants  
Mining of Massive Datasets  
Pure Mathematics C1 C2  
Introduction to Applied Linear Algebra  
Introduction to Tropical Geometry  
Finite Element Procedures  
Theoretical Computer Science and Discrete Mathematics  
Orbital Mechanics for Engineering Students  
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Planning and Using Time in the Foundation Stage  
Iterative Methods for Solving Nonlinear Equations and Systems  
Lectures on Mappings of Finite Distortion  
High-Dimensional Probability  
Discrete Mathematics Using a Computer  
Time-of-Flight Cameras  
Core C1/C2  
Euclidean Geometry in Mathematical Olympiads  
Fundamentals of Actuarial Mathematics  
Foundations of Data Science

### The Scottish Book

Solving nonlinear equations in Banach spaces (real or complex nonlinear equations, nonlinear systems, and nonlinear matrix equations, among others), is a non-trivial task that involves many areas of science and technology. Usually the solution is not directly affordable and require an approach using iterative algorithms. This Special Issue focuses mainly on the design, analysis of convergence, and stability of new schemes for solving nonlinear problems and their application to practical problems. Included papers study the following topics: Methods for finding simple or multiple roots either with or without derivatives, iterative methods for approximating different generalized inverses, real or complex dynamics associated to the rational functions resulting from the application of an iterative method on a polynomial. Additionally, the analysis of the convergence has been carried out by means of different sufficient conditions assuring the local, semilocal, or global convergence. This Special issue has allowed us to present the latest research results in the area of iterative processes for solving nonlinear equations as well as systems and matrix equations. In addition to the theoretical papers, several manuscripts on signal processing, nonlinear integral equations, or partial differential equations, reveal the connection between iterative methods and other branches of science and engineering.

### Convex Optimization

Enable students to construct, communicate and justify correct mathematical arguments, with a range of activities and examples of maths in the real world. - Engage and excite students with examples and photos of maths in the real world, plus inquisitive starter activities to encourage their problem-solving skills - Build mathematical thinking with our 'Toolkit' and mathematical exploration chapter,

along with our new toolkit feature of questions, investigations and activities - Develop understanding with key concepts and applications integrated throughout, along with TOK links for every topic - Prepare your students for assessment with worked examples, and extended essay support - Check understanding with review exercise midway and at the end of the coursebook Follows the new 2019 IB Guide for Mathematics: analysis and approaches Standard Level Available in the series Mathematics for the IB Diploma: Analysis and approaches SL Student Book ISBN: 9781510462359 Student eTextbook ISBN: 9781510461895 Whiteboard eTextbook ISBN: 9781510461901 Mathematics for the IB Diploma: Analysis and approaches HL Student Book ISBN: 9781510462366 Student eTextbook ISBN: 9781510461857 Whiteboard eTextbook ISBN: 9781510461864 SL & HL Teaching & Learning Resources ISBN: 9781510461918 Mathematics for the IB Diploma: Applications and interpretation SL Student Book ISBN: 9781510462380 Student eTextbook ISBN: 9781510461994 Whiteboard eTextbook ISBN: 9781510462007 Mathematics for the IB Diploma: Applications and interpretation HL Student Book ISBN: 9781510462373 Student eTextbook ISBN: 9781510461956 Whiteboard eTextbook ISBN: 9781510461963 SL and HL Teaching & Learning Resources ISBN: 9781510462014 Dynamic learning packages (include Teaching & Learning resources and Whiteboard eTextbooks) Analysis & approaches SL & HL ISBN: 9781510461925 Applications and interpretation SL and HL ISBN: 9781510462021 Analysis & approaches SL & HL and Applications and interpretation SL and HL ISBN: 9781510468474

### **Enumerative Combinatorics:**

"Richard Stanley's two-volume basic introduction to enumerative combinatorics has become the standard guide to the topic for students and experts alike. This thoroughly revised second edition of Volume 1 includes ten new sections and more than 300 new exercises, most with solutions, reflecting numerous new developments since the publication of the first edition in 1986. The author brings the coverage up to date and includes a wide variety of additional applications and examples, as well as updated and expanded chapter bibliographies. Many of the less difficult new exercises have no solutions so that they can more easily be assigned to students. The material on P-partitions has been rearranged and generalized; the treatment of permutation statistics has been greatly enlarged; and there are also new sections on q-analogues of permutations, hyperplane arrangements, the cd-index, promotion and evacuation and differential posets"--

### **Applied Linear Regression**

This advanced graduate textbook gives an authoritative and insightful description of the major ideas and techniques of public key cryptography.

### **Mathematics for Machine Learning**

This book is the leading title in a series targeted at the average A level Mathematics student which aims to tackle the basic ideas and misconceptions associated with this subject. The inclusion of Stretch and Challenge material caters for the most able students, and lots of regular exercises and exam questions

provide plenty of practice. These books have an innovative 'flexispread' structure devised to motivate students and include real life links to inspire students. A background knowledge chapter at the beginning of each book helps to bridge the gap between GCSE and A level study tackling the retention issue of AS students. This Core book contains a free students' CD-ROM.

## **Nonlinear Dispersive Equations**

### **Bookseller**

Up to now, the global burden of illness and deaths caused by foodborne disease has never been quantified. In order to fill this data vacuum, the World Health Organization (WHO) together with its partners launched in 2006 the Initiative to Estimate the Global Burden of Foodborne Diseases. After an initial consultation, WHO in 2007 established a Foodborne Disease Burden Epidemiology Reference Group (FERG) to lead the initiative. Six taskforces were established under FERG, focusing on groups of hazards or aspects of the methodology. These taskforces commissioned systematic reviews and other studies to provide the data from which to calculate the burden estimates. This report is an outcome of a decade of work by WHO key partners and a number of dedicated individuals. Some additional findings--which cannot be integrated into this report--will be published and user-friendly online tools made available separately. This report and related tools should enable governments and other stakeholders to draw public attention to this often under-estimated problem and mobilize political will and resources to combat foodborne diseases.

### **Math with Bad Drawings**

Vols. for 1871-76, 1913-14 include an extra number, The Christmas bookseller, separately paged and not included in the consecutive numbering of the regular series.

### **Evaluation to Improve Learning**

Covering the subject in an informal way, this book aims to demonstrate the relevance of mathematics as quickly and as painlessly as possible.

### **Mathematics for the IB Diploma: Analysis and approaches SL**

This market-leading introduction to probability features exceptionally clear explanations of the mathematics of probability theory and explores its many diverse applications through numerous interesting and motivational examples. The outstanding problem sets are a hallmark feature of this book. Provides clear, complete explanations to fully explain mathematical concepts. Features subsections on the probabilistic method and the maximum-minimums identity. Includes many new examples relating to DNA matching, utility, finance, and applications of the probabilistic method. Features an intuitive treatment of probability—intuitive explanations follow many examples. The Probability Models

Disk included with each copy of the book, contains six probability models that are referenced in the book and allow readers to quickly and easily perform calculations and simulations.

## **English Language and Literature for the IB Diploma**

Steven Finch provides 136 essays, each devoted to a mathematical constant or a class of constants, from the well known to the highly exotic. This book is helpful both to readers seeking information about a specific constant, and to readers who desire a panoramic view of all constants coming from a particular field, for example, combinatorial enumeration or geometric optimization. Unsolved problems appear virtually everywhere as well. This work represents an outstanding scholarly attempt to bring together all significant mathematical constants in one place.

## **Mathematical Constants**

A hilarious reeducation in mathematics-full of joy, jokes, and stick figures-that sheds light on the countless practical and wonderful ways that math structures and shapes our world. In *Math With Bad Drawings*, Ben Orlin reveals to us what math actually is; its myriad uses, its strange symbols, and the wild leaps of logic and faith that define the usually impenetrable work of the mathematician. Truth and knowledge come in multiple forms: colorful drawings, encouraging jokes, and the stories and insights of an empathetic teacher who believes that math should belong to everyone. Orlin shows us how to think like a mathematician by teaching us a brand-new game of tic-tac-toe, how to understand an economic crisis by rolling a pair of dice, and the mathematical headache that ensues when attempting to build a spherical Death Star. Every discussion in the book is illustrated with Orlin's trademark "bad drawings," which convey his message and insights with perfect pitch and clarity. With 24 chapters covering topics from the electoral college to human genetics to the reasons not to trust statistics, *Math with Bad Drawings* is a life-changing book for the math-estranged and math-enamored alike.

## **Mining of Massive Datasets**

The fundamental mathematical tools needed to understand machine learning include linear algebra, analytic geometry, matrix decompositions, vector calculus, optimization, probability and statistics. These topics are traditionally taught in disparate courses, making it hard for data science or computer science students, or professionals, to efficiently learn the mathematics. This self-contained textbook bridges the gap between mathematical and machine learning texts, introducing the mathematical concepts with a minimum of prerequisites. It uses these concepts to derive four central machine learning methods: linear regression, principal component analysis, Gaussian mixture models and support vector machines. For students and others with a mathematical background, these derivations provide a starting point to machine learning texts. For those learning the mathematics for the first time, the methods help build intuition and practical experience with applying mathematical concepts. Every chapter includes worked examples and exercises to test understanding. Programming tutorials are offered

on the book's web site.

## **Pure Mathematics C1 C2**

Easing the transition from GCSE to AS level, this textbook meets the 2004 Edexcel specifications and provides numerous worked examples and solutions to aid understanding of key concepts.

## **Introduction to Applied Linear Algebra**

"Starting only with a basic knowledge of graduate real analysis and Fourier analysis, the text first presents basic nonlinear tools such as the bootstrap method and perturbation theory in the simpler context of nonlinear ODE, then introduces the harmonic analysis and geometric tools used to control linear dispersive PDE. These methods are then combined to study four model nonlinear dispersive equations. Through extensive exercises, diagrams, and informal discussion, the book gives a rigorous theoretical treatment of the material, the real-world intuition and heuristics that underlie the subject, as well as mentioning connections with other areas of PDE, harmonic analysis, and dynamical systems."

## **Introduction to Tropical Geometry**

Bridging the gap between modern differential geometry and the mathematical physics of general relativity, this text, in its second edition, includes new and expanded material on topics such as the instability of both geodesic completeness and geodesic incompleteness for general space-times, geodesic connectivity, the generic condition, the sectional curvature function in a neighbourhood of degenerate two-plane, and proof of the Lorentzian Splitting Theorem.;Five or more copies may be ordered by college or university stores at a special student price, available on request.

## **Finite Element Procedures**

This book provides a comprehensive introduction to actuarial mathematics, covering both deterministic and stochastic models of life contingencies, as well as more advanced topics such as risk theory, credibility theory and multi-state models. This new edition includes additional material on credibility theory, continuous time multi-state models, more complex types of contingent insurances, flexible contracts such as universal life, the risk measures VaR and TVaR. Key Features: Covers much of the syllabus material on the modeling examinations of the Society of Actuaries, Canadian Institute of Actuaries and the Casualty Actuarial Society. (SOA-CIA exams MLC and C, CSA exams 3L and 4.) Extensively revised and updated with new material. Orders the topics specifically to facilitate learning. Provides a streamlined approach to actuarial notation. Employs modern computational methods. Contains a variety of exercises, both computational and theoretical, together with answers, enabling use for self-study. An ideal text for students planning for a professional career as actuaries, providing a solid preparation for the modeling examinations of the major North American actuarial associations. Furthermore, this book is highly suitable reference for those wanting

a sound introduction to the subject, and for those working in insurance, annuities and pensions.

## **Theoretical Computer Science and Discrete Mathematics**

High-dimensional probability offers insight into the behavior of random vectors, random matrices, random subspaces, and objects used to quantify uncertainty in high dimensions. Drawing on ideas from probability, analysis, and geometry, it lends itself to applications in mathematics, statistics, theoretical computer science, signal processing, optimization, and more. It is the first to integrate theory, key tools, and modern applications of high-dimensional probability. Concentration inequalities form the core, and it covers both classical results such as Hoeffding's and Chernoff's inequalities and modern developments such as the matrix Bernstein's inequality. It then introduces the powerful methods based on stochastic processes, including such tools as Slepian's, Sudakov's, and Dudley's inequalities, as well as generic chaining and bounds based on VC dimension. A broad range of illustrations is embedded throughout, including classical and modern results for covariance estimation, clustering, networks, semidefinite programming, coding, dimension reduction, matrix completion, machine learning, compressed sensing, and sparse regression.

## **Orbital Mechanics for Engineering Students**

Several areas of mathematics find application throughout computer science, and all students of computer science need a practical working understanding of them. These core subjects are centred on logic, sets, recursion, induction, relations and functions. The material is often called discrete mathematics, to distinguish it from the traditional topics of continuous mathematics such as integration and differential equations. The central theme of this book is the connection between computing and discrete mathematics. This connection is useful in both directions: • Mathematics is used in many branches of computer science, in applications including program specification, datastructures, design and analysis of algorithms, database systems, hardware design, reasoning about the correctness of implementations, and much more; • Computers can help to make the mathematics easier to learn and use, by making mathematical terms executable, making abstract concepts more concrete, and through the use of software tools such as proof checkers. These connections are emphasised throughout the book. Software tools (see Appendix A) enable the computer to serve as a calculator, but instead of just doing arithmetic and trigonometric functions, it will be used to calculate with sets, relations, functions, predicates and inferences. There are also special software tools, for example a proof checker for logical proofs using natural deduction.

## **Who Estimates of the Global Burden of Foodborne Diseases**

In this book we introduce the class of mappings of finite distortion as a generalization of the class of mappings of bounded distortion. Connections with models of nonlinear elasticity are also discussed. We study continuity properties, behavior of our mappings on null sets, topological properties like openness and

discreteness, regularity of the potential inverse mappings and many other aspects.

## **Mathematics for Computer Science**

This volume constitutes the refereed post-conference proceedings of the International Conference on Theoretical Computer Science and Discrete Mathematics, held in Krishnankoil, India, in December 2016. The 57 revised full papers were carefully reviewed and selected from 210 submissions. The papers cover a broad range of topics such as line graphs and its generalizations, large graphs of given degree and diameter, graphoidal covers, adjacency spectrum, distance spectrum, b-coloring, separation dimension of graphs and hypergraphs, domination in graphs, graph labeling problems, subsequences of words and Parike matrices, lambda-design conjecture, graph algorithms and interference model for wireless sensor networks.

## **Global Lorentzian Geometry**

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.

## **Six Septembers: Mathematics for the Humanist**

Easing the transition from GCSE to AS level, this textbook meets the 2004 Edexcel specifications and provides numerous worked examples and solutions to aid understanding of key concepts.

## **Mathematics of Public Key Cryptography**

## **Mathematics for Economics and Business**

Time-of-flight (TOF) cameras provide a depth value at each pixel, from which the

3D structure of the scene can be estimated. This new type of active sensor makes it possible to go beyond traditional 2D image processing, directly to depth-based and 3D scene processing. Many computer vision and graphics applications can benefit from TOF data, including 3D reconstruction, activity and gesture recognition, motion capture and face detection. It is already possible to use multiple TOF cameras, in order to increase the scene coverage, and to combine the depth data with images from several colour cameras. Mixed TOF and colour systems can be used for computational photography, including full 3D scene modelling, as well as for illumination and depth-of-field manipulations. This work is a technical introduction to TOF sensors, from architectural and design issues, to selected image processing and computer vision methods.

## **A First Course in Probability**

For students studying the new Language A Language and Literature syllabus for the IB Diploma. Written by an experienced, practising IB English teacher, this new title is an in-depth and accessible guide for Standard and Higher Level students of the new Language A Language and Literature syllabus for the IB Diploma. This lively, well structured coursebook is available in both print and e-book formats and includes: key concepts in studying language and literature; text extracts from World literature (in English and in translation); international media and language sources; a wide variety of activities to build skills; materials for exam preparation; guidance on assessment; Theory of Knowledge links; and Extended essay opportunities.

## **Probability**

Operating on two levels, this book aims to help students and practitioners understand how to plan and use time effectively within the foundation stage setting. The book examines how children learn and play at different times of day, how they function when they might be tired or hungry and how best to organize the learning day with this in mind. The authors discuss the issue of environment, how children relate to different areas within their own room, and what happens when routines of time and place are altered. The book also discusses how to develop children's understanding of time and how to incorporate the theme of time into children's play. The book includes: practical activities and examples that will allow children to fully comprehend the concept of time advice on how to create time for children to learn through play, inquiry and investigation sections on how time can be used to include parents, colleagues and the local community. This book provides in-depth analysis of how effective use of time can be beneficial for parents, children and staff in early years setting.

## **Core Mathematics C3**

Developed from celebrated Harvard statistics lectures, Introduction to Probability provides essential language and tools for understanding statistics, randomness, and uncertainty. The book explores a wide variety of applications and examples, ranging from coincidences and paradoxes to Google PageRank and Markov chain Monte Carlo (MCMC). Additional



## **Introduction to Probability**

Orbital Mechanics for Engineering Students, Second Edition, provides an introduction to the basic concepts of space mechanics. These include vector kinematics in three dimensions; Newton's laws of motion and gravitation; relative motion; the vector-based solution of the classical two-body problem; derivation of Kepler's equations; orbits in three dimensions; preliminary orbit determination; and orbital maneuvers. The book also covers relative motion and the two-impulse rendezvous problem; interplanetary mission design using patched conics; rigid-body dynamics used to characterize the attitude of a space vehicle; satellite attitude dynamics; and the characteristics and design of multi-stage launch vehicles. Each chapter begins with an outline of key concepts and concludes with problems that are based on the material covered. This text is written for undergraduates who are studying orbital mechanics for the first time and have completed courses in physics, dynamics, and mathematics, including differential equations and applied linear algebra. Graduate students, researchers, and experienced practitioners will also find useful review materials in the book. NEW: Reorganized and improved discussions of coordinate systems, new discussion on perturbations and quaternions NEW: Increased coverage of attitude dynamics, including new Matlab algorithms and examples in chapter 10 New examples and homework problems

## **Core Mathematics 2**

Convex optimization problems arise frequently in many different fields. This book provides a comprehensive introduction to the subject, and shows in detail how such problems can be solved numerically with great efficiency. The book begins with the basic elements of convex sets and functions, and then describes various classes of convex optimization problems. Duality and approximation techniques are then covered, as are statistical estimation techniques. Various geometrical problems are then presented, and there is detailed discussion of unconstrained and constrained minimization problems, and interior-point methods. The focus of the book is on recognizing convex optimization problems and then finding the most appropriate technique for solving them. It contains many worked examples and homework exercises and will appeal to students, researchers and practitioners in fields such as engineering, computer science, mathematics, statistics, finance and economics.

## **Planning and Using Time in the Foundation Stage**

This book provides an introduction to the mathematical and algorithmic foundations of data science, including machine learning, high-dimensional geometry, and analysis of large networks. Topics include the counterintuitive nature of data in high dimensions, important linear algebraic techniques such as singular value decomposition, the theory of random walks and Markov chains, the fundamentals of and important algorithms for machine learning, algorithms and analysis for clustering, probabilistic models for large networks, representation learning including topic modelling and non-negative matrix factorization, wavelets and compressed sensing. Important probabilistic techniques are developed

including the law of large numbers, tail inequalities, analysis of random projections, generalization guarantees in machine learning, and moment methods for analysis of phase transitions in large random graphs. Additionally, important structural and complexity measures are discussed such as matrix norms and VC-dimension. This book is suitable for both undergraduate and graduate courses in the design and analysis of algorithms for data.

## **Iterative Methods for Solving Nonlinear Equations and Systems**

This classic introduction to probability theory for beginning graduate students covers laws of large numbers, central limit theorems, random walks, martingales, Markov chains, ergodic theorems, and Brownian motion. It is a comprehensive treatment concentrating on the results that are the most useful for applications. Its philosophy is that the best way to learn probability is to see it in action, so there are 200 examples and 450 problems. The fourth edition begins with a short chapter on measure theory to orient readers new to the subject.

## **Lectures on Mappings of Finite Distortion**

Scholars of all stripes are turning their attention to materials that represent enormous opportunities for the future of humanistic inquiry. The purpose of this book is to impart the concepts that underlie the mathematics they are likely to encounter and to unfold the notation in a way that removes that particular barrier completely. This book is a primer for developing the skills to enable humanist scholars to address complicated technical material with confidence. This book, to put it plainly, is concerned with the things that the author of a technical article knows, but isn't saying. Like any field, mathematics operates under a regime of shared assumptions, and it is our purpose to elucidate some of those assumptions for the newcomer. The individual subjects we tackle are (in order): logic and proof, discrete mathematics, abstract algebra, probability and statistics, calculus, and differential equations.

## **High-Dimensional Probability**

Now in its second edition, this book focuses on practical algorithms for mining data from even the largest datasets.

## **Discrete Mathematics Using a Computer**

Tropical geometry is a combinatorial shadow of algebraic geometry, offering new polyhedral tools to compute invariants of algebraic varieties. It is based on tropical algebra, where the sum of two numbers is their minimum and the product is their sum. This turns polynomials into piecewise-linear functions, and their zero sets into polyhedral complexes. These tropical varieties retain a surprising amount of information about their classical counterparts. Tropical geometry is a young subject that has undergone a rapid development since the beginning of the 21st century. While establishing itself as an area in its own right, deep connections have been made to many branches of pure and applied mathematics. This book offers a self-contained introduction to tropical geometry, suitable as a course text for

beginning graduate students. Proofs are provided for the main results, such as the Fundamental Theorem and the Structure Theorem. Numerous examples and explicit computations illustrate the main concepts. Each of the six chapters concludes with problems that will help the readers to practice their tropical skills, and to gain access to the research literature.

## **Time-of-Flight Cameras**

A groundbreaking introduction to vectors, matrices, and least squares for engineering applications, offering a wealth of practical examples.

## **Core C1/C2**

## **Euclidean Geometry in Mathematical Olympiads**

This book covers elementary discrete mathematics for computer science and engineering. It emphasizes mathematical definitions and proofs as well as applicable methods. Topics include formal logic notation, proof methods; induction, well-ordering; sets, relations; elementary graph theory; integer congruences; asymptotic notation and growth of functions; permutations and combinations, counting principles; discrete probability. Further selected topics may also be covered, such as recursive definition and structural induction; state machines and invariants; recurrences; generating functions.

## **Fundamentals of Actuarial Mathematics**

Surveys the various techniques that can be used to evaluate students' learning, including summative, diagnostic, and formative approaches and the assessment of specific skills

## **Foundations of Data Science**

The second edition of this book updates and expands upon a historically important collection of mathematical problems first published in the United States by Birkhäuser in 1981. These problems serve as a record of the informal discussions held by a group of mathematicians at the Scottish Café in Lwów, Poland, between the two world wars. Many of them were leaders in the development of such areas as functional and real analysis, group theory, measure and set theory, probability, and topology. Finding solutions to the problems they proposed has been ongoing since World War II, with prizes offered in many cases to those who are successful. In the 35 years since the first edition published, several more problems have been fully or partially solved, but even today many still remain unsolved and several prizes remain unclaimed. In view of this, the editor has gathered new and updated commentaries on the original 193 problems. Some problems are solved for the first time in this edition. Included again in full are transcripts of lectures given by Stanislaw Ulam, Mark Kac, Antoni Zygmund, Paul Erdős, and Andrzej Granas that provide amazing insights into the mathematical environment of Lwów before World War II and the development of The Scottish Book. Also new in this edition are a

brief history of the University of Wrocław's New Scottish Book, created to revive the tradition of the original, and some selected problems from it. The Scottish Book offers a unique opportunity to communicate with the people and ideas of a time and place that had an enormous influence on the development of mathematics and try their hand on the unsolved problems. Anyone in the general mathematical community with an interest in the history of modern mathematics will find this to be an insightful and fascinating read.

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