

A History Of Mathematics 3rd Revised Edition

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Labyrinth of Thought - Jose Ferreiros 2013-11-22

"José Ferreirós has written a magisterial account of the history of set theory which is panoramic, balanced, and engaging. Not only does this book synthesize much previous work and provide fresh insights and points of view, but it also features a major innovation, a full-fledged treatment of the emergence of the set-theoretic approach in mathematics from the early nineteenth century. This takes up Part One of the book. Part Two analyzes the crucial developments in the last quarter of the nineteenth century, above all the work of Cantor, but also Dedekind and the interaction between the two. Lastly, Part Three details the development of set theory up to 1950, taking account of foundational questions and the emergence of the modern axiomatization." (Bulletin of Symbolic Logic)

Geometry: The Line and the Circle - Maureen T. Carroll 2018-12-20

Geometry: The Line and the Circle is an undergraduate text with a strong narrative that is written at the appropriate level of rigor for an upper-level survey or axiomatic course in geometry. Starting with Euclid's *Elements*, the book connects topics in Euclidean and non-Euclidean geometry in an intentional and meaningful way, with historical context. The line and the circle are the principal characters driving the narrative. In every geometry considered—which include spherical, hyperbolic, and taxicab, as well as finite affine and projective geometries—these two

objects are analyzed and highlighted. Along the way, the reader contemplates fundamental questions such as: What is a straight line? What does parallel mean? What is distance? What is area? There is a strong focus on axiomatic structures throughout the text. While Euclid is a constant inspiration and the *Elements* is repeatedly revisited with substantial coverage of Books I, II, III, IV, and VI, non-Euclidean geometries are introduced very early to give the reader perspective on questions of axiomatics. Rounding out the thorough coverage of axiomatics are concluding chapters on transformations and constructibility. The book is compulsively readable with great attention paid to the historical narrative and hundreds of attractive problems. [Writing the History of Mathematics: Its Historical Development](#) - Joseph W. Dauben 2002-09-23

As an historiographic monograph, this book offers a detailed survey of the professional evolution and significance of an entire discipline devoted to the history of science. It provides both an intellectual and a social history of the development of the subject from the first such effort written by the ancient Greek author Eudemus in the Fourth Century BC, to the founding of the international journal, *Historia Mathematica*, by Kenneth O. May in the early 1970s.

A History of Mathematics - Florian Cajori 1893

The Crest of the Peacock - George Gheverghese Joseph 1992
Examines the early developments and uses of mathematics in such places as Egypt, Mesopotamia, China, and India

The Math Book - Clifford A. Pickover 2009

This book covers 250 milestones in mathematical history, beginning millions of years ago with ancient "ant odometers" and moving through time to our modern-day quest for new dimensions.

The Four Pillars of Geometry - John Stillwell 2005-08-09

This book is unique in that it looks at geometry from 4 different viewpoints - Euclid-style axioms, linear algebra, projective geometry, and groups and their invariants Approach makes the subject accessible to readers of all mathematical tastes, from the visual to the algebraic Abundantly supplemented with figures and exercises

Elements of the History of Mathematics - N. Bourbaki 2013-12-01

Each volume of Nicolas Bourbaki's well-known work, *The Elements of Mathematics*, contains a section or chapter devoted to the history of the subject. This book collects together those historical segments with an emphasis on the emergence, development, and interaction of the leading ideas of the mathematical theories presented in the *Elements*. In particular, the book provides a highly readable account of the evolution of algebra, geometry, infinitesimal calculus, and of the concepts of number and structure, from the Babylonian era through to the 20th century.

Anachronisms in the History of Mathematics - Niccolò Guicciardini 2021-07-22

The controversial matters surrounding the notion of anachronism are difficult ones: they have been broached by literary and art critics, by philosophers, as well as by historians of science. This book adopts a bottom-up approach to the many problems concerning anachronism in the history of mathematics. Some of the leading scholars in the field of history of mathematics reflect on the applicability of present-day mathematical language, concepts, standards, disciplinary boundaries, indeed notions of mathematics itself, to well-chosen historical case studies belonging to the mathematics of the past, in European and non-

European cultures. A detailed introduction describes the key themes and binds the various chapters together. The interdisciplinary and transcultural approach adopted allows this volume to cover topics important for history of mathematics, history of the physical sciences, history of science, philosophy of mathematics, history of philosophy, methodology of history, non-European science, and the transmission of mathematical knowledge across cultures.

The History of Mathematics - Roger L. Cooke 2011-02-14

This new edition brings the fascinating and intriguing history of mathematics to life The Second Edition of this internationally acclaimed text has been thoroughly revised, updated, and reorganized to give readers a fresh perspective on the evolution of mathematics. Written by one of the world's leading experts on the history of mathematics, the book details the key historical developments in the field, providing an understanding and appreciation of how mathematics influences today's science, art, music, literature, and society. In the first edition, each chapter was devoted to a single culture. This Second Edition is organized by subject matter: a general survey of mathematics in many cultures, arithmetic, geometry, algebra, analysis, and mathematical inference. This new organization enables students to focus on one complete topic and, at the same time, compare how different cultures approached each topic. Many new photographs and diagrams have been added to this edition to enhance the presentation. The text is divided into seven parts: The World of Mathematics and the Mathematics of the World, including the origin and prehistory of mathematics, cultural surveys, and women mathematicians Numbers, including counting, calculation, ancient number theory, and numbers and number theory in modern mathematics Color Plates, illustrating the impact of mathematics on civilizations from Egypt to Japan to Mexico to modern Europe Space, including measurement, Euclidean geometry, post-Euclidean geometry, and modern geometrics Algebra, including problems leading to algebra, equations and methods, and modern algebra Analysis, including the calculus, real, and complex analysis Mathematical Inference, including probability and statistics, and logic and set theory As readers progress through the text,

they learn about the evolution of each topic, how different cultures devised their own solutions, and how these solutions enabled the cultures to develop and progress. In addition, readers will meet some of the greatest mathematicians of the ages, who helped lay the groundwork for today's science and technology. The book's lively approach makes it appropriate for anyone interested in learning how the field of mathematics came to be what it is today. It can also serve as a textbook for undergraduate or graduate-level courses. An Instructor's Manual presenting detailed solutions to all the problems in the book is available upon request from the Wiley editorial department.

A History of Mathematics - Carl Benjamin Boyer 1985

The Description for this book, *A History of Mathematics*, will be forthcoming.

History in Mathematics Education - John Fauvel 2006-04-11

This ground-breaking book investigates how the learning and teaching of mathematics can be improved through integrating the history of mathematics into all aspects of mathematics education: lessons, homework, texts, lectures, projects, assessment, and curricula. It draws upon evidence from the experience of teachers as well as national curricula, textbooks, teacher education practices, and research perspectives across the world. It includes a 300-item annotated bibliography of recent work in the field in eight languages.

A History of Mathematics - Victor J. Katz 1998

One of the leading historians in the mathematics field, Victor Katz provides a world view of mathematics, balancing ancient, early modern, and modern history.

A History of Mathematics (Classic Version) - Victor J. Katz

2017-03-21

Originally published in 2009, reissued as part of Pearson's modern classic series.

History of Mathematics Teaching and Learning - Alexander Karp

2016-07-26

This work examines the main directions of research conducted on the history of mathematics education. It devotes substantial attention to

research methodologies and the connections between this field and other scholarly fields. The results of a survey about academic literature on this subject are accompanied by a discussion of what has yet to be done and problems that remain unsolved. The main topics you will find in "ICME-13 Topical Survey" include:

- Discussions of methodological issues in the history of mathematics education and of the relation between this field and other scholarly fields.
- The history of the formation and transformation of curricula and textbooks as a reflection of trends in social-economic, cultural and scientific-technological development.
- The influence of politics, ideology and economics on the development of mathematics education, from a historical perspective.
- The history of the preeminent mathematics education organizations and the work of leading figures in mathematics education.
- Mathematics education practices and tools and the preparation of mathematics teachers, from a historical perspective.

Math through the Ages: A Gentle History for Teachers and Others Expanded Second Edition - William P. Berlinghoff 2021-04-29

Where did math come from? Who thought up all those algebra symbols, and why? What is the story behind π ? ... negative numbers? ... the metric system? ... quadratic equations? ... sine and cosine? ... logs? The 30 independent historical sketches in *Math through the Ages* answer these questions and many others in an informal, easygoing style that is accessible to teachers, students, and anyone who is curious about the history of mathematical ideas. Each sketch includes Questions and Projects to help you learn more about its topic and to see how the main ideas fit into the bigger picture of history. The 30 short stories are preceded by a 58-page bird's-eye overview of the entire panorama of mathematical history, a whirlwind tour of the most important people, events, and trends that shaped the mathematics we know today. "What to Read Next" and reading suggestions after each sketch provide starting points for readers who want to learn more. This book is ideal for a broad spectrum of audiences, including students in history of mathematics courses at the late high school or early college level, pre-service and in-service teachers, and anyone who just wants to know a little more about

the origins of mathematics.

Euclidean Geometry and Transformations - Clayton W. Dodge 2004-01-01

This introduction to Euclidean geometry emphasizes transformations, particularly isometries and similarities. Suitable for undergraduate courses, it includes numerous examples, many with detailed answers. 1972 edition.

A Short Account of the History of Mathematics - Walter William Rouse Ball 1908

Handbook on the History of Mathematics Education - Alexander Karp 2014-01-25

This is the first comprehensive International Handbook on the History of Mathematics Education, covering a wide spectrum of epochs and civilizations, countries and cultures. Until now, much of the research into the rich and varied history of mathematics education has remained inaccessible to the vast majority of scholars, not least because it has been written in the language, and for readers, of an individual country. And yet a historical overview, however brief, has become an indispensable element of nearly every dissertation and scholarly article. This handbook provides, for the first time, a comprehensive and systematic aid for researchers around the world in finding the information they need about historical developments in mathematics education, not only in their own countries, but globally as well. Although written primarily for mathematics educators, this handbook will also be of interest to researchers of the history of education in general, as well as specialists in cultural and even social history.

An Introduction to the Early Development of Mathematics - Michael K. J. Goodman 2016-01-27

An easy-to-read presentation of the early history of mathematics. Engaging and accessible, *An Introduction to the Early Development of Mathematics* provides a captivating introduction to the history of ancient mathematics in early civilizations for a nontechnical audience. Written with practical applications in a variety of areas, the book utilizes the historical context of mathematics as a pedagogical tool to assist readers

working through mathematical and historical topics. The book is divided into sections on significant early civilizations including Egypt, Babylonia, China, Greece, India, and the Islamic world. Beginning each chapter with a general historical overview of the civilized area, the author highlights the civilization's mathematical techniques, number representations, accomplishments, challenges, and contributions to the mathematical world. Thoroughly class-tested, *An Introduction to the Early Development of Mathematics* features: Challenging exercises that lead readers to a deeper understanding of mathematics Numerous relevant examples and problem sets with detailed explanations of the processes and solutions at the end of each chapter Additional references on specific topics and keywords from history, archeology, religion, culture, and mathematics Examples of practical applications with step-by-step explanations of the mathematical concepts and equations through the lens of early mathematical problems A companion website that includes additional exercises *An Introduction to the Early Development of Mathematics* is an ideal textbook for undergraduate courses on the history of mathematics and a supplement for elementary and secondary education majors. The book is also an appropriate reference for professional and trade audiences interested in the history of mathematics. Michael K. J. Goodman is Adjunct Mathematics Instructor at Westchester Community College, where he teaches courses in the history of mathematics, contemporary mathematics, and algebra. He is also the owner and operator of The Learning Miracle, LLC, which provides academic tutoring and test preparation for both college and high school students.

Revolutions of Geometry - Michael L. O'Leary 2010-02-22

Guides readers through the development of geometry and basic proof writing using a historical approach to the topic In an effort to fully appreciate the logic and structure of geometric proofs, *Revolutions of Geometry* places proofs into the context of geometry's history, helping readers to understand that proof writing is crucial to the job of a mathematician. Written for students and educators of mathematics alike, the book guides readers through the rich history and influential works,

from ancient times to the present, behind the development of geometry. As a result, readers are successfully equipped with the necessary logic to develop a full understanding of geometric theorems. Following a presentation of the geometry of ancient Egypt, Babylon, and China, the author addresses mathematical philosophy and logic within the context of works by Thales, Plato, and Aristotle. Next, the mathematics of the classical Greeks is discussed, incorporating the teachings of Pythagoras and his followers along with an overview of lower-level geometry using Euclid's Elements. Subsequent chapters explore the work of Archimedes, Viete's revolutionary contributions to algebra, Descartes' merging of algebra and geometry to solve the Pappus problem, and Desargues' development of projective geometry. The author also supplies an excursion into non-Euclidean geometry, including the three hypotheses of Saccheri and Lambert and the near simultaneous discoveries of Lobachevski and Bolyai. Finally, modern geometry is addressed within the study of manifolds and elliptic geometry inspired by Riemann's work, Poncelet's return to projective geometry, and Klein's use of group theory to characterize different geometries. The book promotes the belief that in order to learn how to write proofs, one needs to read finished proofs, studying both their logic and grammar. Each chapter features a concise introduction to the presented topic, and chapter sections conclude with exercises that are designed to reinforce the material and provide readers with ample practice in writing proofs. In addition, the overall presentation of topics in the book is in chronological order, helping readers appreciate the relevance of geometry within the historical development of mathematics. Well organized and clearly written, *Revolutions of Geometry* is a valuable book for courses on modern geometry and the history of mathematics at the upper-undergraduate level. It is also a valuable reference for educators in the field of mathematics.

history of mathematics - david eugene smite 1923

Turning Points in the History of Mathematics - Hardy Grant
2016-04-15

This book explores some of the major turning points in the history of mathematics, ranging from ancient Greece to the present, demonstrating the drama that has often been a part of its evolution. Studying these breakthroughs, transitions, and revolutions, their stumbling-blocks and their triumphs, can help illuminate the importance of the history of mathematics for its teaching, learning, and appreciation. Some of the turning points considered are the rise of the axiomatic method (most famously in Euclid), and the subsequent major changes in it (for example, by David Hilbert); the "wedding," via analytic geometry, of algebra and geometry; the "taming" of the infinitely small and the infinitely large; the passages from algebra to algebras, from geometry to geometries, and from arithmetic to arithmetics; and the revolutions in the late nineteenth and early twentieth centuries that resulted from Georg Cantor's creation of transfinite set theory. The origin of each turning point is discussed, along with the mathematicians involved and some of the mathematics that resulted. Problems and projects are included in each chapter to extend and increase understanding of the material. Substantial reference lists are also provided. *Turning Points in the History of Mathematics* will be a valuable resource for teachers of, and students in, courses in mathematics or its history. The book should also be of interest to anyone with a background in mathematics who wishes to learn more about the important moments in its development.

Proofs from THE BOOK - Martin Aigner 2013-06-29

According to the great mathematician Paul Erdős, God maintains perfect mathematical proofs in *The Book*. This book presents the authors' candidates for such "perfect proofs," those which contain brilliant ideas, clever connections, and wonderful observations, bringing new insight and surprising perspectives to problems from number theory, geometry, analysis, combinatorics, and graph theory. As a result, this book will be fun reading for anyone with an interest in mathematics.

A History of Mathematics - Carl B. Boyer 2011-01-11

The updated new edition of the classic and comprehensive guide to the history of mathematics. For more than forty years, *A History of Mathematics* has been the reference of choice for those looking to learn

about the fascinating history of humankind's relationship with numbers, shapes, and patterns. This revised edition features up-to-date coverage of topics such as Fermat's Last Theorem and the Poincaré Conjecture, in addition to recent advances in areas such as finite group theory and computer-aided proofs. Distills thousands of years of mathematics into a single, approachable volume Covers mathematical discoveries, concepts, and thinkers, from Ancient Egypt to the present Includes up-to-date references and an extensive chronological table of mathematical and general historical developments. Whether you're interested in the age of Plato and Aristotle or Poincaré and Hilbert, whether you want to know more about the Pythagorean theorem or the golden mean, *A History of Mathematics* is an essential reference that will help you explore the incredible history of mathematics and the men and women who created it.

Researching the History of Mathematics Education - Fulvia Furinghetti 2017-12-04

This book offers insights into the history of mathematics education, covering both the current state of the art of research and the methodology of the field. History of mathematics education is treated in the book as a part of social history. This book grew out of the presentations delivered at the International Congress on Mathematics Education in Hamburg. Modern development and growing internationalization of mathematics education made it clear that many urgent questions benefit from a historical approach. The chapters present viewpoints from the following countries: Belgium, Brazil, Cambodia, China, Cyprus, Germany, Iceland, Italy, the Netherlands, Russia, Spain and Sweden. Each chapter represents significant directions of historical studies. The book is a valuable source for every historian of mathematics education and those interested in mathematics education and its development.

The History of Mathematics - David M. Burton 1991

This text is designed for the junior/senior mathematics major who intends to teach mathematics in high school or college. It concentrates on the history of those topics typically covered in an undergraduate

curriculum or in elementary schools or high schools. At least one year of calculus is a prerequisite for this course. This book contains enough material for a 2 semester course but it is flexible enough to be used in the more common 1 semester course.

Darts on History of Mathematics - SATISH C. BHATNAGAR
2014-10-29

What is new in the book? Apart from its format, in brief, it has thought-provoking angles of observation and deductive conclusions on many topics, which may look ordinary or rare. Who will benefit from the book? Any lay person with an historical bent of mind on mathematical topics stands to gain from it. Both undergraduate and graduate students in history of mathematics courses would enjoy it. All reflections are independent they are excellent bedtime reading too.

A Concise History of Mathematics - Dirk Jan Struik 1967

This compact, well-written history covers major mathematical ideas and techniques from the ancient Near East to 20th-century computer theory, surveying the works of Archimedes, Pascal, Gauss, Hilbert, and many others. "The author's ability as a first-class historian as well as an able mathematician has enabled him to produce a work which is unquestionably one of the best." — Nature.

[A Contextual History of Mathematics](#) - Ronald Calinger 1999

Tracing the roots of mathematics, this fascinating survey covers the ancient beginnings and subsequent branches of growth in this rich, diverse, and rapidly expanding scientific field, with discussions that progress from the theoretical mathematics in ancient Mesopotamia and Egypt to the emergence of higher analysis mathematics in the late seventeenth century. Well-documented, it presents both established and promising emerging theses, with careful consideration throughout to the remappings, redivisions, and renarrations presented by each new body of historians. Reflects on the nature and roots of mathematics, and a look at some of our more important historiographical issues. Considers mathematics before civilization, with examinations of the Neolithic Revolution and writing and metrology in ancient Sumer, and tracks the science from proto- to theoretical mathematics. Provides a broad survey

of mathematics progression in the Islamic world, Latin West, and Maya America from the Middle Ages to 1500, and contain discussions on such topics as the age of absolutism, the culture of science, inventions of differential and fluxional calculus, as well as algebra, number theory, and probability.

Discrete Mathematics - Oscar Levin 2018-12-31

Note: This is the 3rd edition. If you need the 2nd edition for a course you are taking, it can be found as a "other format" on amazon, or by searching its isbn: 1534970746 This gentle introduction to discrete mathematics is written for first and second year math majors, especially those who intend to teach. The text began as a set of lecture notes for the discrete mathematics course at the University of Northern Colorado. This course serves both as an introduction to topics in discrete math and as the "introduction to proof" course for math majors. The course is usually taught with a large amount of student inquiry, and this text is written to help facilitate this. Four main topics are covered: counting, sequences, logic, and graph theory. Along the way proofs are introduced, including proofs by contradiction, proofs by induction, and combinatorial proofs. The book contains over 470 exercises, including 275 with solutions and over 100 with hints. There are also Investigate! activities throughout the text to support active, inquiry based learning. While there are many fine discrete math textbooks available, this text has the following advantages: It is written to be used in an inquiry rich course. It is written to be used in a course for future math teachers. It is open source, with low cost print editions and free electronic editions. This third edition brings improved exposition, a new section on trees, and a bunch of new and improved exercises. For a complete list of changes, and to view the free electronic version of the text, visit the book's website at discrete.openmathbooks.org

An Introduction to the History of Mathematics - Howard Eves 1990

This classic best-seller by a well-known author introduces mathematics history to math and math education majors. Suggested essay topics and problem studies challenge students. CULTURAL CONNECTIONS sections explain the time and culture in which mathematics developed

and evolved. Portraits of mathematicians and material on women in mathematics are of special interest.

[The Intersection of History and Mathematics](#) - Sasaki Chikara
2013-03-09

Mathematics and Its History - John Stillwell 2020-11-07

This textbook provides a unified and concise exploration of undergraduate mathematics by approaching the subject through its history. Readers will discover the rich tapestry of ideas behind familiar topics from the undergraduate curriculum, such as calculus, algebra, topology, and more. Featuring historical episodes ranging from the Ancient Greeks to Fermat and Descartes, this volume offers a glimpse into the broader context in which these ideas developed, revealing unexpected connections that make this ideal for a senior capstone course. The presentation of previous versions has been refined by omitting the less mainstream topics and inserting new connecting material, allowing instructors to cover the book in a one-semester course. This condensed edition prioritizes succinctness and cohesiveness, and there is a greater emphasis on visual clarity, featuring full color images and high quality 3D models. As in previous editions, a wide array of mathematical topics are covered, from geometry to computation; however, biographical sketches have been omitted. **Mathematics and Its History: A Concise Edition** is an essential resource for courses or reading programs on the history of mathematics. Knowledge of basic calculus, algebra, geometry, topology, and set theory is assumed. From reviews of previous editions: "Mathematics and Its History is a joy to read. The writing is clear, concise and inviting. The style is very different from a traditional text. I found myself picking it up to read at the expense of my usual late evening thriller or detective novel.... The author has done a wonderful job of tying together the dominant themes of undergraduate mathematics." Richard J. Wilders, MAA, on the Third Edition "The book...is presented in a lively style without unnecessary detail. It is very stimulating and will be appreciated not only by students. Much attention is paid to problems and to the

development of mathematics before the end of the nineteenth century.... This book brings to the non-specialist interested in mathematics many interesting results. It can be recommended for seminars and will be enjoyed by the broad mathematical community." European Mathematical Society, on the Second Edition

Mathematics for Machine Learning - Marc Peter Deisenroth

2020-04-23

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.

A History of Mathematics - Luke Hodgkin 2013-02-21

A History of Mathematics: From Mesopotamia to Modernity covers the evolution of mathematics through time and across the major Eastern and Western civilizations. It begins in Babylon, then describes the trials and tribulations of the Greek mathematicians. The important, and often neglected, influence of both Chinese and Islamic mathematics is covered in detail, placing the description of early Western mathematics in a global context. The book concludes with modern mathematics, covering recent developments such as the advent of the computer, chaos theory, topology, mathematical physics, and the solution of Fermat's Last

Theorem. Containing more than 100 illustrations and figures, this text, aimed at advanced undergraduates and postgraduates, addresses the methods and challenges associated with studying the history of mathematics. The reader is introduced to the leading figures in the history of mathematics (including Archimedes, Ptolemy, Qin Jiushao, al-Kashi, al-Khwarizmi, Galileo, Newton, Leibniz, Helmholtz, Hilbert, Alan Turing, and Andrew Wiles) and their fields. An extensive bibliography with cross-references to key texts will provide invaluable resource to students and exercises (with solutions) will stretch the more advanced reader.

A Concise History of Mathematics - Dirk J. Struik 2012-06-28

Compact, well-written survey ranges from the ancient Near East to 20th-century computer theory, covering Archimedes, Pascal, Gauss, Hilbert, and many others. "A work which is unquestionably one of the best." — Nature.

Mathematics and Its History - John Stillwell 2012-10-13

From a review of the second edition: "This book covers many interesting topics not usually covered in a present day undergraduate course, as well as certain basic topics such as the development of the calculus and the solution of polynomial equations. The fact that the topics are introduced in their historical contexts will enable students to better appreciate and understand the mathematical ideas involved...If one constructs a list of topics central to a history course, then they would closely resemble those chosen here." (David Parrott, Australian Mathematical Society) This book offers a collection of historical essays detailing a large variety of mathematical disciplines and issues; it's accessible to a broad audience. This third edition includes new chapters on simple groups and new sections on alternating groups and the Poincare conjecture. Many more exercises have been added as well as commentary that helps place the exercises in context.

Mathematics: A Concise History and Philosophy - W.S. Anglin
2012-12-06

This is a concise introductory textbook for a one-semester (40-class) course in the history and philosophy of mathematics. It is written for

mathematics majors, philosophy students, history of science students, and (future) secondary school mathematics teachers. The only prerequisite is a solid command of precalculus mathematics. On the one hand, this book is designed to help mathematics majors acquire a philosophical and cultural understanding of their subject by means of doing actual mathematical problems from different eras. On the other hand, it is designed to help philosophy, history, and education students come to a deeper understanding of the mathematical side of culture by means of writing short essays. The way I myself teach the material, students are given a choice between mathematical assignments, and more historical or philosophical assignments. (Some sample assignments and tests are found in an appendix to this book.) This book differs from standard textbooks in several ways. First, it is shorter, and thus more

accessible to students who have trouble coping with vast amounts of reading. Second, there are many detailed explanations of the important mathematical procedures actually used by famous mathematicians, giving more mathematically talented students a greater opportunity to learn the history and philosophy by way of problem solving.

From China to Paris - Yvonne Dold-Samplonius 2002

The reports of a conference of 11 scholars who began the task of examining together primary sources that might shed some light on exactly how and in what forms mathematical problems, concepts, and techniques may have been transmitted between various civilizations, from antiquity down to the European Renaissance following more or less the legendary silk routes between China and Western Europe.