

Airpower by Sea

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Science Service, Inc. is collaborating with JSTOR to digitize, preserve, and extend access to The Science News-Letter. STOR The fullest, most comprehensive non-technical history of mathematics ever written in English, this 1355-page work ranges from prehistoric times to the beginning of the 20th century. It covers the mathematical thought and contributions of the entire world, from the Ancient Egyptians and Sumerians up through Greece and Rome, the Islamic and European Middle Ages, the Orient, and Modern Europe and America. All aspects of mathematics from number systems up through calculus are traced from their origins.

"Marks an epoch . . . it will modify the entire teaching of the history of science," George Sarton.

The first volume of Smith's HISTORY OF MATHEMATICS undertakes a clear, full survey of the development of numbers, arithmetic, counting systems, geometry, algebra, trigonometry, business mathematics, calculus, and special topics in higher mathematics. All in all Professor Smith, in his survey, considers more than 1100 mathematicians in all times and areas, giving their biographies in brief, expositions of their contributions, and their most significant works. To list only a few of the topics and persons discussed in full, clear detail: counting systems other than decimal, the Ahmes Papyrus, applied math. in the Pyramids, Pythagoras, ancient Chinese mathematics, Antiphon Manaeachmus, Aristarchus, Eratosthenes, Archimedes, Heron, Diophantus, Brahmagupta, cubic equations, oriental approximations of pi, Ya'qub ibn Tariq, al Astorlabi, Al-Kindi, Cassiodorus, Psellus, rithmomachia, Roger Bacon, Fibonacci, Sacrobosco, Villa Nova, Oresme, Cusa, Mongol algebra and astronomy, Avicenna, Cardan, Tartaglia, Ramus, Stifel, Copernicus, Glareanus, Galileo, Cassini, Descartes, Fermat, Napier, Barrow Newton, Kepler, Leibniz, Huyghens, Imamura, Cotes, Cocker, Boole, Cayley, Clifford, Lagrange, Laplace, Legendre, Carnot, Cauchy, Galois, Poincare, Gauss, Moebius, Cantor, Dirichlet, Weierstrass, Dedekind, Euler, Abel, Lie, Bolyai, Peirce, Gibbs, and more than one thousand other mathematicians.

The second volume is unique in scientific histories. It is a topical history showing the growth in all times and places of ideas, theories, methods of notation, and similar matters. It covers natural numbers, reading and writing numbers all over the world, mechanical aids to calculation, artificial numbers, geometry, approximations of pi, non-Euclidean geometry algebra, logarithms, infinite series, mechanical recreations, trigonometry, measures, calculus, and similar topics. In each case you will learn how a particular branch of mathematics arose and was developed. You will see, for example, how the idea of decimals was first understood by Jean de Meurs in 14th century France, and Ulugh Beg in 15th century Persia; how they were partly applied by Cardan in 16th century Italy, and first fully developed by Rudolff in 16th century Germany.

"A significant and unique addition to the literature," SCIENCE PROGRESS.

An unusual feature in Smith's HISTORY OF MATHEMATICS is its copious and original illustration, with more than 500 drawings and photographs of famous mathematicians, symbols, mathematical instruments, and monuments. An enormous bibliography and critical apparatus is contained in more than 2,100 footnotes.

The life-time work of the late Professor Smith, this gigantic history is entirely written so that it can be read and followed by the reader who has never gone beyond elementary trigonometry. It is still of great interest and value to the professional mathematician, physicist, and other reader interested in higher mathematics. It will

- Prepare you for more technical histories of special topics, areas, or mathematicians . . .
- Provide you with a historical framework for understanding ideas . . . most readers find it easier to assimilate abstract ideas if the ideas are expressed in a context of personality, time, and place . . .
- * Give you a first-rate understanding of the streams of thought which culminate in modern mathematics . . .
- * Delight you for hours with fascinating lore and interesting facts . . . make you see the color and interest within this important branch of knowledge . . .

Teachers use Smith's HISTORY OF MATHEMATICS as an inexhaustible mine of study suggestions and expositions; students find it unexcelled as supplementary reading. Mathematicians, historians find it one of the best research aids ever written.

HISTORY OF MATHEMATICS by D. E. Smith. Two volumes, total of 510 illustrations. Total of 1355 pages. 5% x 8. Two volume set, boxed in attractive container, paperbound.







Did you know that . . .

- * The word "algebra" in 16th century England also meant bone-setting, and barbershops often displayed signs reading "Algebra and blood-letting"...
- * Mechain, a French mathematician, made an error of 3" in the latitude of Barcelona; to cover himself, he proposed shifting the meridians all over the world . . .
- * Mathematical notation developed late . . . Cardan, in the 16th century, for example, had to write the expression $x^2 + 4x + 4$ as ce'p:4reb.'p:4 . . .
- * Newton was so absent-minded that one day, when he was leading his horse, the horse slipped away, and Newton dragged the empty bridle behind him for hours before someone told him the horse was missing ...

thousands of other interesting and important facts in

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