



Research Guide: Mathematics

This research guide is a bibliography listing some of the many reference sources for Mathematics available at FLITE. These materials are designed to give students and researchers a starting point for a particular topic and will usually point the way toward other, more in-depth sources relating to that topic.

Encyclopedias

CRC Concise Encyclopedia of Mathematics, 2nd ed.: This source covers all fields of mathematics with articles ranging from lengthy surveys on major issues to quick reference definitions. Most articles include references for further information.

Located in Reference: QA 5 .W45 2003

Encyclopaedia of Mathematics: An Updated and Annotated Translation of the Soviet "Mathematical Encyclopaedia" [6 vols.]: The *Encyclopaedia of Mathematics* includes general survey articles on main mathematics topics; specialized articles on concrete problems, techniques, and results; and brief definitions. Most articles contain references for further information. Volume Six contains subject and author indexes.

Located in Reference: QA 5 .M3713 1995

Encyclopedia of Mathematics Education: Describing mathematics education at elementary, secondary, and postsecondary levels, this source also covers assessment, curriculum, governmental role, history of math and math education, instructional materials and methods, international comparisons, issues, psychology of learning, resources, and teacher preparation.

Located in Reference: QA 11 .E665 2001

International Encyclopedia of Statistics [2 vols.]: This source contains approximately seventy articles on statistics and sixty biographies of statisticians and other persons instrumental in the development of statistics.

Located in Reference: HA 17 .I63

Van Nostrand's Scientific Encyclopedia, 9th ed. [2 vols.]: A concise, comprehensive, and accessible general science work, the scope of *Van Nostrand's* ranges from the introductory to the highly technical coverage in the sciences, engineering, mathematics, and medicine. An important feature in this work is the progressive development of the discussion of each topic, beginning with a simple definition expressed in plain terms which is then developed into a more detailed treatment of the subject.

Located in Reference: Q 121 .V3 2001

Dictionaries

Cambridge Dictionary of Statistics: This dictionary includes brief definitions of statistical terms as well as short biographies of more than 100 important statisticians.

Located in Reference: QA 276.15 .E84 1998

Dictionary of Analysis, Calculus, and Differential Equations: This dictionary contains some 2,500 detailed definitions, complete with alternative meanings and related references, and includes terms associated with analysis, calculus and differential equations, differential geometry, algebraic geometry, topology, and related areas.

Located in Reference: QA 5 .D53 2000

Dictionary of Physics and Mathematics Abbreviations, Signs, and Symbols: This resource contains abbreviations, signs, and symbols used to represent concepts, quantities, and operations used in physics and mathematics. Access is by term or by abbreviation.

Located in Reference: QC 5 .D55

Elsevier's Dictionary of Mathematics: This work incorporates the mathematics terminology of the electronic age and is a translation table among four languages – English, German, French and Russian. There are no definitions.

Located in Reference: QA 5 .E48 2000

The Facts on File Dictionary of Mathematics, 3rd ed.: Containing 3,000 brief definitions, *The Facts on File Dictionary of Mathematics* also includes appendixes listing information on Imperial units, symbols and notations, conversion factors, expansions, integrals, derivatives, powers and roots, fundamental constants, and the Greek alphabet.

Located in Reference: QA 5 .F35 1999

Mathematics Dictionary and Handbook, 3rd ed.: More than 1,000 concepts and mathematical operations are defined and illustrated. Terms are from elementary algebra, geometry, probability, and trigonometry.

Located in Reference: QA 5 .N48 1998

Tables

CRC Standard Mathematical Tables, 27th ed.: A comprehensive reference for tables and formulae from all areas of mathematics.

Located in Reference: QA 47 .C72

Handbook of Mathematical Formulas, Tables, Functions, Graphs, Transforms for Mathematicians, Scientists, Engineers: A useful reference for math, science, engineering, and other technical fields. Most-frequently used formulas, tables, transforms, functions, and graphs needed as tools in solving problems are also included. The entire field of special functions is also covered. A large amount of scientific data used by scientists and engineers is also contained in this handbook.

Located in Reference: QA 40 .H35

Handbook of Mathematical Tables and Formulas, 5th ed.: Part 1 provides summaries of important formulas and theorems of algebra, trigonometry, analytical geometry, calculus, and vector analysis; Part 2 contains tables of logarithms and trigonometric functions. Table and subject indexes are also included.

Located in Reference: QA 47 .B8 1973

Biographical Sources

The Biographical Dictionary of Scientists, 2nd ed.: This book is an alphabetically arranged biographical dictionary of scientists from all scientific fields including mathematics. Also included is an introductory historical overview of each scientific discipline including mathematics.

Located in Reference: Q 141 .B526 1994

Biographical Encyclopedia of Mathematicians [2 vols.]: This multi-volume source provides biographical essays on 178 mathematicians from ancient Greece to the present day. Sidebars define major achievements.

Located in Reference: QA 28 .B544 1999

Notable Mathematicians: From Ancient Times to the Present: Brief biographies of 303 mathematicians are contained in this work. Coverage is worldwide and ranges throughout recorded history.

Located in Reference: QA 28 .N66 1998