

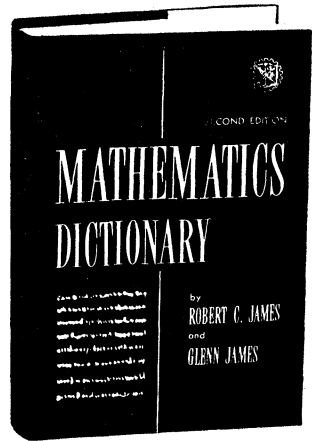
Now! Two Books in One

MATHEMATICS DICTIONARY

REVISED, ENLARGED, 2ND EDITION

by Glenn James and Robert C. James

— now including foreign language equivalents —



Here is a dictionary that goes beyond a mere listing of words and definitions. This unique work has more than 7,000 mathematical terms, PLUS multilingual indexes giving their equivalents in Russian, German, French, and Spanish.

Designed as a time-saving reference work for scientists, engineers, and students and others using mathematics in their professions, this vast fund of information will also enable the general reader to understand a particular mathematical concept, or to extend his own knowledge of mathematics.

The coverage of terms is broad, from elementary terms in arithmetic through calculus, basic terms in differential geometry, theory of functions of real and complexed variables, advanced calculus, differential equations to the theory of groups and matrices, theory of summability, point-set topology, integral equations, calculus of variations analytic mechanics, theory of potential and statistics. Many important new terms have been added in these fields: Modern algebra, number theory, topology, vector spaces, numerical analysis, computing machines and the theory of games, linear and dynamic programming. Useful tables and extensive lists of mathematical symbols are helpfully given, while formulas of many kinds appear in the context.

An important feature is the multilingual index. Here you can quickly find the English meaning of a term in another language and then its definition in the body of the book.

544 pp. \$15.00

ORDER FORM

D. Van Nostrand Company, Inc. Dept. BAMJ.
120 Alexander Street, Princeton, N.J.

Send me for ten days FREE examination the JAMES MATHEMATICS DICTIONARY. Within 10 days I will remit purchase price of \$15.00 plus small delivery cost, or return book and owe nothing.

Name

Address

City Zone .. State

COMING SOON

Colloquium Publications
Volume xxiii

**ORTHOGONAL
POLYNOMIALS**

by
GABOR SZEGÖ

With corrections and
new material.

AMERICAN MATHEMATICAL SOCIETY
190 Hope Street
Providence 6, Rhode Island

MATHEMATICS, ENGINEERING, PHYSICS AND CHEMISTRY, Robert College, Istanbul. Teaching, consulting, life and travel in vital area. Development program in effect to prepare engineers for industrial and technological growth of Turkey and Middle East. Write Dr. Duncan S. Ballantine, President, or Dean Howard P. Hall, College of Engineering, Robert College, Bebek P.K. 8, Istanbul, Turkey with copy to Near East College Association, 40 Worth Street, New York 13.

MEMOIRS 26

**PRINCIPAL SOLUTIONS OF
ORDINARY DIFFERENTIAL
EQUATIONS IN THE
COMPLEX DOMAIN**

by **WALTER STRODT**

107 pp. \$2.00

25% discount to members

AMERICAN MATHEMATICAL
SOCIETY

190 Hope Street
Providence, Rhode Island

A Colloquium Publication

VOLUME XXXVII

STRUCTURE OF RINGS

by **NATHAN JACOBSON**

In his preface, the author points out that a number of important developments have recently taken place in the theory of non-commutative rings. These include the structure theory of rings without finiteness assumptions, cohomology of algebras, and structure and representation theory of non-semi-simple rings. The main purpose of this volume is to give an account of the first of these developments.

\$7.70

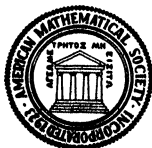
263 pages

25% discount to members of the Society

Order from

AMERICAN MATHEMATICAL SOCIETY

190 Hope Street, Providence 6, R.I.



MEMOIR 30

**FLAT LORENTZ
3-MANIFOLDS**

by
**L. AUSLANDER and
L. MARKUS**

60 pp. \$2.00

25% discount to members

**AMERICAN MATHEMATICAL SOCIETY
190 Hope Street
Providence 6, Rhode Island**

**CUSHING-MALLOY,
INC.**

Ann Arbor, Michigan

LITHOPRINTERS

Known for

**QUALITY—ECONOMY
SERVICE**

**Let us quote on your next
printing**

**THE AMERICAN MATHEMATICAL SOCIETY
respectfully invites and deeply appreciates
BEQUESTS AND OTHER CAPITAL GIFTS**

A legacy or other capital gift to the American Mathematical Society is an effective contribution to the advancement of mathematical research. Investment income provides essential support for the activities of the Society, and most of it is derived from gifts and bequests which have been made over the years by persons interested in mathematics.

It is the policy of the Society to recognize a donor by attaching his name, or any other name specified by him as a memorial, to the fund given by him or to the activity supported by the fund. Gifts and bequests to the Society are deductible for income, gift, and state tax purposes.



**AMERICAN MATHEMATICAL SOCIETY
190 Hope Street, Providence 6, R.I.**



MATHEMATICAL REVIEWS

A Journal Containing Reviews
of the Mathematical Literature
of the World, with full
Subject and Author Indices

Sponsored by

The American Mathematical Society

*The Mathematical Association of
America*

*The Society for Industrial and
Applied Mathematics*

*The Institute of Mathematical
Statistics*

The Edinburgh Mathematical Society

Société Mathématique de France

Dansk Matematisk Forening

*Het Wiskundig Genootschap te
Amsterdam*

The London Mathematical Society

Polskie Towarzystwo Matematyczne

Unión Matemática Argentina

Indian Mathematical Society

Unione Matematica Italiana

Subscriptions accepted to cover
the calendar year only. Issues ap-
pear monthly except July. \$50.00
per year. \$25.00 to individual mem-
bers of sponsoring organizations.
An edition printed on one side, for
bibliographical purposes, is avail-
able at an additional charge of
\$1.00 per year. Unesco Book Cou-
pons may be used in payment.

Send subscription orders to

**AMERICAN MATHEMATICAL
SOCIETY**

**190 Hope Street
Providence 6, R.I.**

Mathematicians Computer Programmers Physicists

The Applied Mathematics Division of Brookhaven is exploring various mathematical and computational problems arising in unclassified fundamental nuclear research in the physical and life sciences.

An expansion of these activities and the near completion of a high speed research computer has created additional opportunities for experienced and qualified individuals.

**U. S. CITIZENSHIP IS
NOT A PREREQUISITE**

Address Inquiries To
The Office of Scientific Personnel

BROOKHAVEN
National Laboratory
ASSOCIATED UNIVERSITIES, INC.
UPTON, L.I., N.Y.

MEMOIR 31

PERIODIC SOLUTIONS OF

$$x'' + cx' + g(x) = f(t)$$

by
W. S. LOUD

58 pp.

\$2.00

25% discount to members

AMERICAN MATHEMATICAL SOCIETY
190 Hope Street
Providence 6, Rhode Island

Now In Its Second Year . . .

THE PHYSICS OF FLUIDS

EDITOR, F. N. FRENKIEL,

Applied Physics Lab., Johns Hopkins University, Silver Spring, Md.

Devoted to original contributions to the physics of fluids covering kinetic theory, statistical mechanics, structure and general physics of gases, liquids and other fluids and including:

- Magneto-Fluid Dynamics
- Ionized Fluid and Plasma Physics
- Shock and Detonation Wave Phenomena
- Dynamics of Compressible Fluids
- Boundary Layer and Turbulence Phenomena
- Liquid State Physics and Superfluidity
- Hypersonic Physics
- Rarefied Gas Phenomena
- Upper Atmosphere Phenomena
- Physical Aeronomy
- Transport Phenomena
- Hydrodynamics

As well as certain basic aspects of physics of fluids bordering geophysics, astrophysics, biophysics and other fields of science:

Bi-monthly: Non Members—\$10.00 domestic, \$11.00 foreign
Members of member societies—\$8.00 domestic, \$9.00 foreign
A.P.S. in lieu—\$4.00 domestic, \$5.00 foreign

Orders and inquiries should be sent to:

American Institute of Physics, 335 East 45 Street, New York 17, N.Y.

IF YOU CAN CHECK ANY ONE OF THESE BOXES



MATHEMATICIAN OR ENGINEER in a project that needs . . .

- Faster, more accurate results from reiterated calculations.
- Simulation and evaluation of theoretical operations without costly, time consuming pilot plant runs.
- Fast, accurate evaluation of raw data.

Lynn Computations can help you slash man-hour requirements for repetitive computations.

FREE CONSULTING SERVICE . . . Competent staff members will discuss specific problems or supply general information.

PROGRAMMING . . . Fees apply only when the Computations staff assumes full responsibility for the project.

COST . . . Based upon actual machine running time only.

FACILITIES . . . High-speed IBM 704 digital computer, magnetic tapes and drum, and full range of auxiliary equipment.

181-1A

FILL OUT AND MAIL THIS COUPON

General Electric Company
Flight Propulsion Laboratory Department
Lynn Computations Operation
950 Western Ave., Lynn, Mass.

- Please send me descriptive brochure of data processing services.
- Attached is a description of my requirements. I am interested in a proposal.
- Please have one of your consultants contact me.

Name _____

Company _____

Title _____

Street _____

City _____ Zone _____ State _____

GENERAL  ELECTRIC

Journals Published by the American Mathematical Society

Bulletin of the American Mathematical Society

This journal is the official organ of the Society. It reports official acts of the Society and the details of its meetings. It contains some of the officially invited addresses presented before the Society, reviews of advanced mathematical books, research problems and a department of research announcements.

The subscription price is \$7.00 per annual volume of six numbers.

Research Problems and Invited Addresses offered for publication should be sent to B. J. PÉTTIS, Department of Mathematics, University of North Carolina, Chapel Hill, N. C.; Book reviews to J. C. OXTOBY, Bryn Mawr College, Bryn Mawr, Pa. Research Announcements offered for publication should be sent to some member of the Council of the Society, and communicated by him to E. E. MOISE, Department of Mathematics, University of Michigan, Ann Arbor, Mich. All other communications to the editors should be sent to the Managing Editor, J. C. OXTOBY.

The members of the Council for 1959 are: E. F. Beckenbach, E. G. Begle, R. E. Bellman, Lipman Bers, R. H. Bing, Garrett Birkhoff, R. P. Boas, Salomon Bochner, Richard Brauer, R. H. Bruck, S. S. Chern, J. A. Dieudonné, J. L. Doob, Samuel Eilenberg, P. R. Garabedian, A. M. Gleason, J. W. Green, P. R. Halmos, Edwin Hewitt, Einar Hille, G. P. Hochschild, G. B. Huff, Nathan Jacobson, Irving Kaplansky, D. H. Lehmer, L. H. Loomis, E. J. McShane, W. S. Massey, A. E. Meder, Jr., E. E. Moise, J. C. Oxtoby, B. J. Pettis, R. S. Pierce, Everett Pitcher, G. de B. Robinson, P. C. Rosenbloom, Walter Rudin, Hans Samelson, I. J. Schoenberg, I. E. Segal, N. E. Steenrod, A. W. Tucker, S. M. Ulam, J. W. T. Youngs, Leo Zippin.

Proceedings of the American Mathematical Society

This journal is devoted entirely to research in pure and applied mathematics and is devoted principally to the publication of original papers of moderate length.

The subscription price is \$11.00 per annual volume of six numbers.

Papers in algebra and number theory should be sent to IRVING KAPLANSKY, Eckhart Hall, University of Chicago, Chicago 37, Ill.; in probability, real variables, logic and foundations to P. R. HALMOS, Eckhart Hall, University of Chicago, Chicago 37, Ill.; in abstract analysis to either P. R. HALMOS or IRVING KAPLANSKY; in geometry and topology to HANS SAMELSON, Department of Mathematics, University of Michigan, Ann Arbor, Mich.; in other branches of analysis, applied mathematics, and all other fields to R. P. BOAS, Lunt Building, Northwestern University, Evanston, Ill. All other communication to the editors should be addressed to the Managing Editor, IRVING KAPLANSKY.

Transactions of the American Mathematical Society

This journal is devoted entirely to research in pure and applied mathematics, and includes in general longer papers than the PROCEEDINGS.

Four volumes of three numbers each will be published in 1958. The subscription price is \$8.00 per volume.

Papers in analysis, applied mathematics and probability should be sent to LIPMAN BERS, Institute of Mathematical Sciences, New York University, New York, N. Y.; in topology, and logic and foundations to SAMUEL EILENBERG, Hamilton Hall, Columbia University, New York 27, N. Y.; in algebra and number theory to G. P. HOCHSCHILD, Department of Mathematics, University of California, Berkeley 4, Calif.; in geometry and abstract analysis to I. M. SINGER, Massachusetts Institute of Technology, Cambridge 39, Mass. All other communications to the editors should be addressed to the Managing Editor, SAMUEL EILENBERG.

Mathematical Reviews

This journal contains abstracts and reviews of the current mathematical literature of the world. It is sponsored by thirteen mathematical organizations, located both in the United States and abroad.

MATHEMATICAL REVIEWS is published monthly, excepting July. The subscription price is \$50.00 per annual volume of eleven numbers.

Notices of the American Mathematical Society

This journal announces the programs of the meetings of the Society. It carries the abstracts of all contributed papers presented at the meetings of the Society and publishes news items of interest to mathematical scientists.

The subscription price is \$7.00 per annual volume of 7 numbers. A single copy is \$2.00.

All communications should be addressed to the Editor J. H. CURTISS, 190 Hope Street, Providence 6, Rhode Island. News items and insertions for each issue must be in the hands of the editor on or before the deadline for the abstracts for the papers to be presented in the meetings announced in that issue. These deadlines are published regularly on the inside front cover page.

Some Recent Publications of the Society

L. P. Eisenhart, <i>Non-Riemannian geometry</i> . Published in 1927 and reprinted in 1958, Colloquium Volume 8.	\$ 4.90
W. S. Loud, <i>Periodic solutions of $x'' + cx' + g(x) = ef(t)$</i> . Memoir 31.	\$ 2.00
L. Auslander and L. Markus, <i>Flat Lorentz manifolds</i> . Memoir 30.	\$ 2.00
John von Neumann, 1903–1957. Supplement to the May, 1958 issue of the Bulletin of the American Mathematical Society.	\$ 3.20
E. Hille and R. S. Phillips. <i>Functional analysis and semi-groups</i> . An enlarged and completely revised edition of Colloquium Volume 31, of the same title, by Hille.	\$13.80
J. L. Walsh. <i>Interpolation and approximation</i> . An enlarged and extensively revised edition of Colloquium Volume 20.	\$ 7.00
W. H. Gottschalk and G. A. Hedlund. <i>Topological dynamics</i> . Colloquium Volume 36.	\$ 5.10
N. Jacobson. <i>Structure of rings</i> . Colloquium Volume 37.	\$ 7.70
C. Chevalley. <i>Introduction to the theory of algebraic functions of one variable</i> . Mathematical Surveys volume 6.	\$ 4.00
S. Bergman. <i>The kernel function and conformal mapping</i> . Mathematical Surveys volume 5.	\$ 4.00
O. F. G. Schilling. <i>The theory of valuations</i> . Mathematical Surveys volume 4.	\$ 6.00
M. Marden. <i>The geometry of the zeros of a polynomial in a complex domain</i> . Mathematical Surveys volume 3.	\$ 5.00
Russian Translations. Volume 5. <i>Eight papers on functional analysis and partial differential equations</i> .	\$ 4.30
Russian Translations. Volume 6. <i>Five papers on algebra and group theory</i> .	\$ 5.20
Russian Translations. Volume 7. <i>Two papers on homotopy theory of continuous mappings</i> .	\$ 5.50
Edward Halpern, <i>Twisted polynomial hyperalgebras</i> . Memoir 29.	\$ 1.50
Ernst Snapper. <i>Cohomology groups and genera of higher-dimensional fields</i> . Memoir 28.	\$ 1.90

The price to members of the American Mathematical Society is 25% less than list.

A complete catalog of publications will be sent upon request

American Mathematical Society
190 Hope Street, Providence 12, Rhode Island