The Words of Mathematics
The Words of Mathematics
An Etymological Dictionary of Mathematical Terms used in English

Steven Schwartzman
The Spectrum Series of the Mathematical Association of America was so named to reflect its purpose: to publish a broad range of books including biographies, accessible expositions of old or new mathematical ideas, reprints and revisions of excellent out-of-print books, popular works, and other monographs of high interest that will appeal to a broad range of readers, including students and teachers of mathematics, mathematical amateurs, and researchers.

Committee on Publications
JAMES W. DANIEL, Chairman

Spectrum Editorial Board
ROGER HORN, Chairman
BART BRADEN RICHARD GUY
UNDERWOOD DUDLEY JEANNE LADUKE
HUGH M. EDGAR LESTER H. LANGE
BONNIE GOLD MARY PARKER

Complex Numbers and Geometry, by Liang-shin Hahn
Cryptology, by Albrecht Beutelspacher
From Zero to Infinity, by Constance Reid
I Want to be a Mathematician, by Paul R. Halmos
Journey into Geometries, by Marta Sved
The Last Problem, by E. T. Bell (revised and updated by Underwood Dudley)
Lure of the Integers, by Joe Roberts
Mathematical Carnival, by Martin Gardner
Mathematical Circus, by Martin Gardner
Mathematical Cranks, by Underwood Dudley
Mathematical Magic Show, by Martin Gardner
Mathematics: Queen and Servant of Science, by E. T. Bell
Memorabilia Mathematica, by R. E. Moritz
Numerical Methods that Work, by Forman Acton
Out of the Mouths of Mathematicians, by Rosemary Schmalz
Polyominoes, by George Martin
The Search for E. T. Bell, also known as John Taine, by Constance Reid
Shaping Space, edited by Marjorie Senechal and George Fleck
Words of Mathematics, by Steven Schwartzman
This book is dedicated to the memory and the continuing influence of my brother-in-law, Alain Levy, who loved science in both the familiar and the etymological senses of the word, and who was well described as a prince.
Contents

Introduction ................................................................................................. 1
Acknowledgments .................................................................................. 9
Explanation of terms and symbols .......................................................... 11
An etymological dictionary of mathematical terms .................................. 17
Appendix: Mathematical entries that are etymologically related, grouped by roots ........ 225
References ............................................................................................... 241
References

References

Wiley & Sons.
Ernout, A., and A. Meillet. 1951. Dictionnaire étymologique de la langue française. Paris: Klinck-
sieck.
Evans, Jacqueline P. 1970. Mathematics: Creation and Study of Form. Reading (Massachusetts):
Addison-Wesley.
Winston.
1993).
Gardner, Martin. 1988. Hexaflexagons and Other Mathematical Diversions. Chicago: University of
Chicago.
Nostrand Reinhold Company.
Glenn, John, and Graham Littler, editors. 1984. A Dictionary of Mathematics. Cambridge (Mas-
(Massachusetts): G. & C. Merriam Company.
Reinhold Company.
Guralnik, David B., and Joseph H. Friend, editors. 1966. Webster’s New World Dictionary of the
Hall, Leon M. 1992. “Trochoids, Roses, and Thorns—Beyond the Spirograph,” in College Mathe-
Publishers.
tions.


The Words of Mathematics

An Etymological Dictionary of Mathematical Terms Used in English

*The Words of Mathematics* explains the origins of over 1500 mathematical terms used in English. While other dictionaries of mathematics define technical terms, this book concentrates on where those terms came from and what their literal meanings are. The words included here range from simple to advanced.

This dictionary is easy to use. Although some of the entries are highly technical, the book explains them in plain English. The introduction gives an overview of how the ancient language known as Indo-European developed into Latin, Greek, French, and English, the languages from which most of our mathematical vocabulary has been derived. Another section discusses the many ways in which mathematicians have borrowed and created their specialized vocabulary over the centuries. A glossary explains historical and linguistic terms used throughout the book.