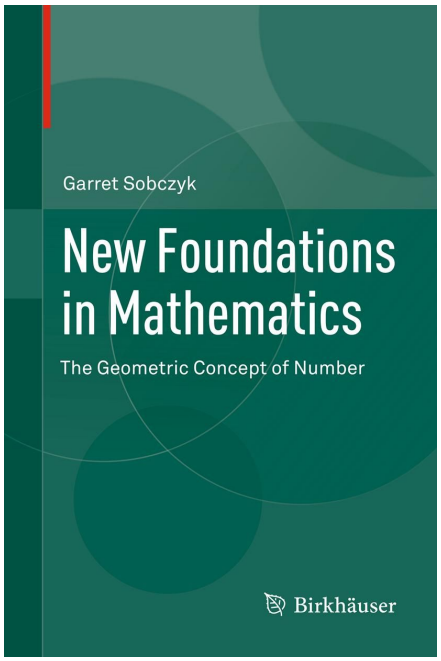

Birkhäuser

1st edition

2013, XIV, 370 p. 55 illus., 32 illus. in color.

Printed book
Hardcover

Printed book
Hardcover
ISBN 978-0-8176-8384-9
~~$ 109,99~~
Available
Sale price valid through July 31, 2020
$ 59,99

Discount group
Professional Books (2)

Product category
Graduate/advanced undergraduate textbook

Mathematics : Linear and Multilinear Algebras, Matrix Theory

Sobczyk, Garret, Universitad de Las Américas, Cholula, Puebla, Mexico

New Foundations in Mathematics

The Geometric Concept of Number

- Geometric algebra, the central topic of the book, provides a unique way to unify, streamline, and simplify teaching and applying many different areas of mathematics
- Presents and casts new light on an impressively broad range of math from elementary level
- Features many exercises and problems to enhance the reader's skills and understanding
- Topics and applications selected to encourage further, more specific research by both graduates and undergraduates

The first book of its kind, New Foundations in Mathematics: The Geometric Concept of Number uses geometric algebra to present an innovative approach to elementary and advanced mathematics. Geometric algebra offers a simple and robust means of expressing a wide range of ideas in mathematics, physics, and engineering. In particular, geometric algebra extends the real number system to include the concept of direction, which underpins much of modern mathematics and physics. Much of the material presented has been developed from undergraduate courses taught by the author over the years in linear algebra, theory of numbers, advanced calculus and vector calculus, numerical analysis, modern abstract algebra, and differential geometry. The principal aim of this book is to present these ideas in a freshly coherent and accessible manner. New Foundations in Mathematics will be of interest to undergraduate and graduate students of mathematics and physics who are looking for a unified treatment of many important geometric ideas arising in these subjects at all levels. The material can also serve as a supplemental textbook in some or all of the areas mentioned above and as a reference book for professionals who apply mathematics to engineering and computational areas of mathematics and physics.

Order online at springer.com/booksellers
Springer Nature Customer Service Center LLC
233 Spring Street
New York, NY 10013
USA
T: +1-800-SPRINGER NATURE
(777-4643) or 212-460-1500
customerservice@springernature.com

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add $5.00 for shipping one book and $ 1.00 for each additional book. Outside the US and Canada add $ 10.00 for first book, $5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

ISBN 978-0-8176-8384-9 / BIC: PBF / SPRINGER NATURE: SCM11094