1. Record Nr. UNINA9910860816603321 Autore Shah Nita H. Titolo Journey from natural numbers to complex numbers // Nita H. Shah and Thakkar D. Vishnuprasad Boca Raton:,: CRC Press,, 2021 Pubbl/distr/stampa **ISBN** 1-00-310524-6 1-003-10524-6 1-000-29957-0 1-000-29963-5 Edizione [1st.] Descrizione fisica 1 online resource (95 pages): illustrations Collana CRC focus series Advances in mathematics and engineering 512.7 Disciplina Soggetti Number theory Numbers, Complex Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Cover -- Half Title -- Series Page -- Title Page -- Copyright Page --Nota di contenuto Table of Contents -- Preface -- Author biographies -- Chapter 1 Natural Numbers -- 1.1 Prerequisites -- 1.1.1 Set Theory -- 1.1.2 Relation -- 1.1.3 Function -- 1.1.4 Cardinality -- 1.1.5 Algebra -- 1.2 Positive Integers -- 1.2.1 Positive Integers in Real Life -- 1.2.2 Set Theoretic Definition of Natural Numbers -- 1.2.3 Peano Axioms --1.2.4 Ordering in Natural Numbers -- 1.2.5 First Principle of Mathematical Induction -- 1.2.6 Second Principle of Mathematical Induction -- 1.2.7 Well-Ordering Principle 1.2.8 Limitations of Natural Numbers -- 1.2.9 Representation of Natural Numbers -- 1.2.9.1 Hexadecimal System -- 1.2.10 Number System Used by Computers -- 1.3 Summary -- Chapter 2 Integers --2.1 Informal Introduction of Integers -- 2.2 Integers as Relation in Ordered Pairs of Natural Numbers -- 2.3 Ordering in Ordered Pairs --2.4 Operations in Ordered Pairs of Natural Numbers -- 2.5 Properties of Binary Operations -- 2.6 Interpretation of Relation and Operations

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## Sommario/riassunto

"This book covers the fundamentals, proof of theorems, examples, definitions, and concepts. It explains the theory in an easy and understandable manner and offers problems for understanding and extensions of concept are included. The book provides concepts in other fields and includes an understanding of handling of numbers by computers. Research scholars and students working in the fields of engineering, science, and different branches of mathematics will find this book of interest, as it provides the subject in a clear and concise way"--