1. Record Nr. UNINA9910785723603321

| | |
|---|---|
| Autore | Krantz Steven G (Steven George), <1951-> |
| Titolo | An episodic history of mathematics [[electronic resource] ] : mathematical culture through problem solving / / Steven G. Krantz |
| Pubbl/distr/stampa | [Washington, D.C.], : Mathematical Association of America, c2010 |
| ISBN | 1-61444-605-9 |
| Descrizione fisica | 1 online resource (396 p.) |
| Collana | AMS/MAA Textbooks, , 2577-1213 ; ; v. 19<br>MAA textbooks |
| Classificazione | 31.01 |
| Disciplina | 510.9 |
| Soggetti | Mathematics - History - Study and teaching (Higher)<br>Mathematics<br>Mathematics - Study and teaching (Higher)<br>Mathematicians |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references (p. 365-369) and index. |
| Nota di contenuto | The ancient Greeks and the foundations of mathematics -- Zeno's paradox and the concept of limit -- The mystical mathematics of Hypatia -- The Islamic world and the development of algebra -- Cardano, Abel, Galois, and the solving of equations -- Rene Descartes and the idea of coordinates -- Pierre de Fermat and the invention of differential calculus -- The great Isaac Newton -- The complex numbers and the fundamental theorem of algebra -- Carl Friedrich Gauss: the prince of mathematics -- Sophie Germain and the attack on Fermat's last problem -- Cauchy and the foundations of analysis -- The prime numbers -- Dirichlet and how to count -- Bernhard Riemann and the geometry of surfaces -- Georg Cantor and the orders of infinity -- The number systems -- Henri Poincare, child phenomenon -- Sonya Kovalevskaya and the mathematics of mechanics -- Emmy Noether and algebra -- Methods of proof -- Alan Turing and cryptography. |
| Sommario/riassunto | "An Episodic History of Mathematics delivers a series of snapshots of mathematics and mathematicians from ancient times to the twentieth century. Giving readers a sense of mathematical culture and history, the book also acquaints readers with the nature and techniques of mathematics via exercises. It introduces the genesis of key |

mathematical concepts. For example, while Krantz does not get into the intricate mathematical details of Andrew Wiles's proof of Fermat's Last Theorem, he does describe some of the streams of thought that posed the problem and led to its solution. The focus in this text, moreover, is on doing - getting involved with the mathematics and solving problems. Every chapter ends with a detailed problem set that will provide students with avenues for exploration and entry into the subject. It recounts the history of mathematics; offers broad coverage of the various schools of mathematical thought to give readers a wider understanding of mathematics; and includes exercises to help readers engage with the text and gain a deeper understanding of the material." --Publisher's description.