

1. Record Nr.	UNINA9910826525803321
Autore	Erickson Martin J. <1963->
Titolo	Beautiful mathematics / / Martin Erickson [[electronic resource]]
Pubbl/distr/stampa	Washington : , : Mathematical Association of America, , 2011
ISBN	1-61444-509-5
Descrizione fisica	1 online resource (xiii, 177 pages) : digital, PDF file(s)
Collana	Spectrum series
Disciplina	510
Soggetti	Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 02 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Imaginative words -- Intriguing images -- Captivating formulas -- Delightful theorems -- Pleasing proofs -- Elegant solutions -- Creative problems -- Harmonious foundations -- Eye-opening explorations.
Sommario/riassunto	Beautiful Mathematics is about beautiful mathematical concepts and creations. Mathematical ideas have an aesthetic appeal that can be appreciated by those who have the time and dedication to investigate. Mathematical topics are presented in the categories of words, images, formulas, theorems, proofs, solutions, and unsolved problems. Readers will investigate exciting mathematical topics ranging from complex numbers to arithmetic progressions, from Alcuin's sequence to the zeta function, and from hypercubes to infinity squared. Do you know that a lemniscate curve is the circular inversion of a hyperbola? That Sierpinski's triangle has fractal dimension 1.585 .? That a regular septagon can be constructed with straightedge, compass, and an angle trisector? Do you know how to prove Lagrange's theorem that every positive integer is the sum of four squares? Can you find the first three digits of the millionth Fibonacci number? Discover the keys to these and many other mathematical problems. In each case, the mathematics is compelling, elegant, simple, and beautiful. Who should read Beautiful Mathematics? There is something new for any mathematically-minded person. High school and college students will find motivation for their mathematical studies. Professional mathematicians will find fresh examples of mathematical beauty to pass along to others. Within each chapter, the topics require progressively more prerequisite knowledge. An appendix gives

background definitions and theorems, while another gives challenging exercises (with solutions).
