Beautiful Geometry

Eli Maor, Eugen Jost
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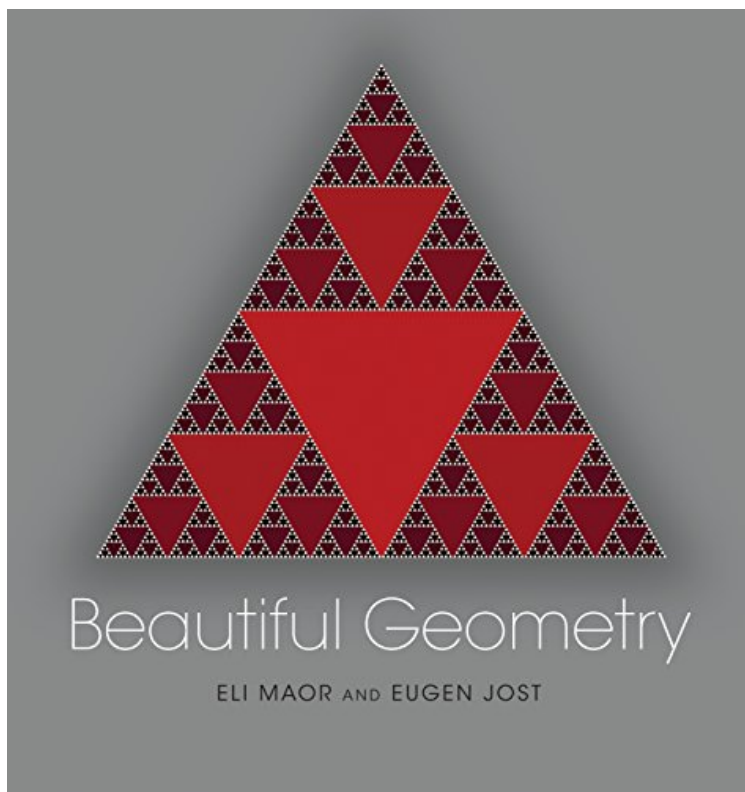
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Eli Maor, Eugen Jost : Beautiful Geometry before purchasing it in order to gage whether or not it would be worth my time, and all praised Beautiful Geometry:

0 of 0 people found the following review helpful. Fabulous visual overview of math historyBy math ladyI love this book so much that I told my college geometry students to purchse it in lieu of a traditional textbook this semester. Each picture can become a mini lecture! My non-math majors find the pages inspirational - and, at $27 retail, the price for a hard cover book makes it an economical purchase. I am hoping this is one math book my students opt to keep - and treasure - long after the course in Geometry and the Art of Design concludes its final class!!1 of 1 people found the following review helpful. EnjoyableBy William SchramContains images demonstrating geometrical ideas and theorems. Very lovely in some respects and contains a lot of information. Written alongside the images are explanations of the theorem in question and a little bit of history.3 of 4 people found the following review helpful. Beautiful bookBy Grant CairnsThis delightful book has 51chapters each devoted to a classical topic in geometry. Each chapter includes a beautiful colour plate and many chapters include additional illustrations. The topics are well chosen and the text is logical and eloquent. The book should be accessible to a very broad audience (there is an appendix with more mathematical details for those inclined). The attention to detail and the standard of production are both outstanding. This would make an excellent gift and would be enjoyed by anyone interested in math, the history of math, art or architecture.Here are 4 comments/observations:p. 44. It is often stated that there is no formula for the primes, but this is actually not the case. There are many explicit formulas. (To my mind the nicest is Ghandi's

formula). For example, see Underwood Dudley's "Formulas for primes", Math. Mag. 56 (1983), no. 1, 17-22. There have also been other formulas obtained since Dudley's paper.p.101. For a geometric derivation of the formula for ln(2), see the proof without words by Matt Hudelson, Math. Mag. vol 83 (2010) p.294.p.120. Fig 36.3; in the 2nd and 4th figure the red dot should be in the centre of the figure, not on the rim of the circle.Chap 49. In my opinion the common popular treatment of the Koch curve is not entirely satisfactory, in that it may be unclear to the reader that its length is infinite, or in fact, what its length means. To clarify my concern, let alpha>0 and consider the curve: gamma_n : [01]->R^2 whose graph on each interval [m/n,(m+1)/n] is a little tent of height alpha/n, where m=0,1,2,...n-1. As n-> infty, the curve converges (in the sup norm) to the unit interval on the x-axis (which is a curve of length 1). But gamma_n has length sqrt(4 alpha^2+1), which is constant, and can be given any value >1 by appropriately choosing alpha. This example shows that where a curve is constructed as the limit of a sequence of curves, the length of the limit is not in general equal to the limit of the lengths. Further, a sequence of curves whose length tends to infinity, could well tend to a curve of finite length. I think an intelligent reader might wonder why this isn't also the case with the Koch curve.

If you've ever thought that mathematics and art don't mix, this stunning visual history of geometry will change your mind. As much a work of art as a book about mathematics, Beautiful Geometry presents more than sixty exquisite color plates illustrating a wide range of geometric patterns and theorems, accompanied by brief accounts of the fascinating history and people behind each. With artwork by Swiss artist Eugen Jost and text by math historian Eli Maor, this unique celebration of geometry covers numerous subjects, from straightedge-and-compass constructions to intriguing configurations involving infinity. The result is a delightful and informative illustrated tour through the 2,500-year-old history of one of the most important branches of mathematics.

Honorable Mention for the 2015 PROSE Award in Popular Science Popular Mathematics, Association of American Publishers"A book that stimulates the mind as well as the eye."--Scientific American"The combination of art and exposition was quite effective. The writing is accessible to most reasonably well-educated laypeople, and I imagine that many such people would derive considerable pleasure dipping into this attractive and interesting book."--Mark Hunacek, MAA s"Eli Maor's lively writing benefits in equal parts from the geometry of ancient Greece and the eye-popping images conjured by artist Eugen Jost."--Bill Cannon, Scientist's Bookshelf"Graphic illustrations serve as both beautiful abstract art and helpful explanations in this overview of geometric theorems and patterns."--Science News"[Beautiful Geometry] achieves its aim to demonstrate that there is visual beauty in Mathematics. I heartily recommend it."--LSE of Books"The explanations are clear, and cover the background to the paintings in a manner that will be appreciated by readers whatever their level of mathematical knowledge. . . . Anyone with any interest in visual mathematics will love this book."--Times Higher Education"A good-looking, large-format book suitable for the coffee table, but with lots of mathematical ideas packed in among the colorful illustrations. . . . [A] handsome book for browsing and for some deep thought, and would be a superb gift for anyone (especially a young person) who has interest in mathematics."--Rob Hardy, Columbus Dispatch"It is a handsome book for browsing and for some deep thought, and would be a superb gift for anyone (especially a young person) who has interest in mathematics."--Rob Hardy, Dispatch"The book by Maor and Jost should be given to everyone--young or old--embarking on the study of mathematics or anyone teaching mathematics. The book will act as a source of inspiration and as a reminder of why it is that mathematics has fascinated the human race for millennia."--Henrik Jeldtoft Jensen, LMS Newsletter"The content is accessible to anyone with even a high school course in geometry. The writing is very clear."--Choice"Clear and lively. . . . The mathematics in this book is first-rate, but the real surprise is how well the art reflects and illuminates the topic at hand. . . . All of it is lovely to look at. . . . [Beautiful Geometry] rises to the level of a coffee-table art book, only with a lot more depth."--Mathematical s"[E]erily captivating book. . . . Maor's style of writing is conversational, and the writing is engaging."--Annalisa Crannell, Journal of Mathematics and the Arts"At a very reasonable price, this is a book which would grace the coffee-table of any mathematics department, and many of the ideas in it will stimulate valuable discussions in the classroom."--Gerry Leversha, Mathematical Gazette"It presents as a coffee-table book for mathematicians and would be a good addition to a classroom library, available for students of all ages to explore."--Susan Mielechowsky, Mathematics Teaching in the Middle School"Visually stunning. . . . [Beautiful Geometry] raises fundamental questions, answered thousands of years later and evidencing the progress made. . . . This is an engaging book of broad appeal and a colourful approach to the history of geometry."--Mathematics TodayFrom the Back Cover"Mathematicians always claim their subject is beautiful. Eli Maor and Eugen Jost prove it. This is geometry as you've never seen it before. A feast for the eyes."--Ian Stewart, author of Visions of Infinity"This book shows that math is more than theorems and proofs--it is full of history, philosophy, and glimpses of different cultures. I was immediately attracted by the book's intriguing and beautiful illustrations, and once I started reading the text, I could not stop following its fascinating stories about the origins of geometrical theorems."--Carlo H. Seacute;quin, University of California, Berkeley"Reading Beautiful Geometry is like touring a personal art collection, except the masterpieces here are elegantly presented theorems and constructions by ancient and modern

mathematicians. Eli Maor teaches the thought process of a geometry connoisseur as he highlights important details in each of these gems, and Eugen Jost illustrates these ideas with colorful and creative artworks. Readers who like to see real math in their math books will enjoy how Beautiful Geometry brings these enduring mathematical achievements to life."--George Hart, mathematical sculptor"Beautiful Geometry teaches and delights with its marriage of art and mathematics. The lovely illustrations range from conversation starters to dazzling Proofs Without Words--clever diagrams that explain why something is true. A feast for the eye and mind."--Frank Farris, Santa Clara University"A beautiful book that is as delightful to see as to read. Once you start you are compelled to read the next subject, and the next, and the next."--Zentralblatt MATHAbout the AuthorEli Maor is the author of To Infinity and Beyond, e: The Story of a Number, Trigonometric Delights, Venus in Transit, and The Pythagorean Theorem: A 4,000-Year History (all Princeton) and has taught the history of mathematics at Loyola University Chicago. Eugen Jost is a well-known Swiss artist whose work is strongly influenced by mathematics.