The Liar Paradox and the Towers of Hanoi: The 10 Greatest Math Puzzles of All Time

Marcel Danesi
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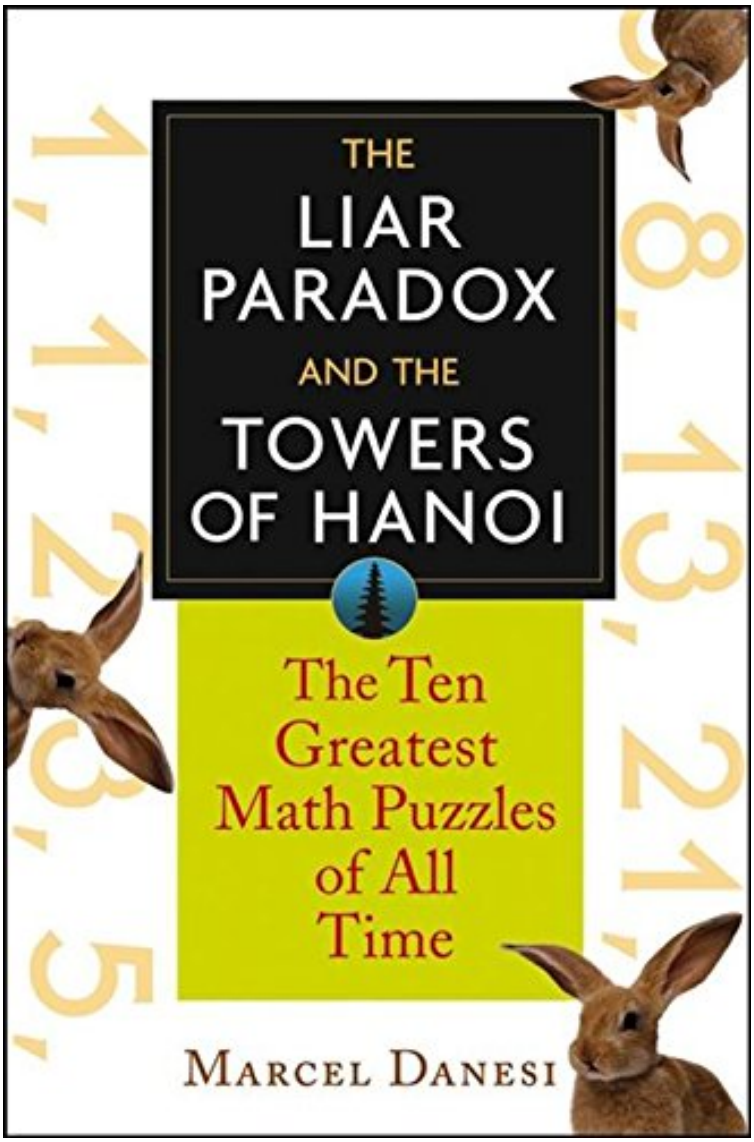

#4337143 in Books 2004-08-27Original language:EnglishPDF # 1 9.02 x .58 x 5.98l, .84 #File Name: 1620458136258 pages | File size: 32.Mb

Marcel Danesi : The Liar Paradox and the Towers of Hanoi: The 10 Greatest Math Puzzles of All Time before purchasing it in order to gage whether or not it would be worth my time, and all praised The Liar Paradox and the Towers of Hanoi: The 10 Greatest Math Puzzles of All Time:

6 of 6 people found the following review helpful. For a mixed audienceBy Gary SprandelI think this book aims at a mixed audience with mixed success. For the puzzle solver, there is interesting background on some popular forms, but

probably not enough puzzles. For someone with a background in math the exploration is too simple, (e.g. one paragraph of Godel) and for the computer scientist not enough exploration of algorithms. For the historian of science there are some new perspectives, but the history is not carried through. On the discussion of Labyrinths, I wish Danesi would have mentioned the book Labyrinths by Borge, and also alluded to the form in some churches.Although the book may not be for the "specialist", there is quite a bit of fun for anyone here. For example I had been familiar with the Fibonacci series, but hadn't seen the Rabbit Puzzle before. Everyone has heard of the Mobius strip, but the Klein bottle was new to me (and I'd love to buy one). I had done mazes before, but the one by Lewis Carroll us fun.0 of 0 people found the following review helpful. Uses puzzles to stimulate mathematical ideasBy Jen BadhamThis book has ten chapters, each with a puzzle and then discussion of mathematical ideas related to the puzzle. There is a list of further reading and extension puzzles at the end of each chapter, with solutions. The puzzles and the mathematical ideas discussed are:Riddle of the Sphinx - Reasoning (especially insight)Alcuin's River Crossing - CombinatoricsFibonacci's Rabbits - Positional notation, series, golden ratioEuler's Konigsberg Bridges - Graph theory, topologyGuthrie's Four Colours - Methods of proofLucas's Towers of Hanoi - Arithmetical and geometric series, Perfect numbers, Mersenne primes, InfinityLoyd's Get off the Earth - Dissections, IllusionsEpimenides' Liar Paradox - Logic, undecidability, limitsLo Shu Magic Square - AlgorithmsCretan Labryinth - Convertability between algebra and geometryWhile I enjoyed this book, I found some of the connections a little tenuous. Each topic was covered very briefly and some chapters jumped around. The Towers of Hanoi chapter was particularly disjointed with the inclusion of infinity.Also, the audience is not clear. Everything more complex that simple mathematical operations is defined and explained; for example exponents receives half a page. This is consistent with the author's intention of connecting the puzzles to the ideas underlying mathematics. However, I feel that readers without more mathematics would have difficulty understanding the discussion from the very brief presentation. The author based the book on a college course about mathematics for nonmathematicians. A more suitable audience may be high school students who are interested in (and even good at) mathematics because the puzzles and discussion will stimulate a deeper understanding.2 of 2 people found the following review helpful. Why this universal fascination with puzzles?By Jerry GuildI have been fascinated with puzzles ever since my teens;which is now over 60 years ago.The term "puzzles" covers such a field,that I was really impressed with this book.When I first started,the first puzzle I came across was "The 15 Puzzle;then later "The Towers of Hanoi".And that was only the start of what became a lifelong interest in searching for new puzzles and books on puzzles. Although the reason the author set upon writing this book was to explain the association of ,and the mathematics involved ,with puzzles;he also did something else at the same time.He shows what the whole world of Puzzles and Mathetical Recreations is all about by taking what he calls "The Ten Greatest Math Puzzles of All Times",explaining them,then expanding on them to show how so many other puzzles stem from them.I have collected somewhere between 6 and 7 hundred puzzle books over the years,many of which the author references,and I have to say,that this book does as good as any I have ever come across ,in explaining what the whole fascination of "Recreational Mathematics" is all about. It was eye opening years ago to find good books on this subject,even harder to find puzzles.Jigsaw and Crossword were common,but little else.Then I found Mathematical Games in "Scientific American;"which led me to many other things.Now,with the "Net" the whole world of Puzzles and books of Puzzles and Mathematical Recreations opens up a pletora of things for the puzzler. This book has something for everyone,whether it is Riddles,Paradoxes,River-Crossing Puzzles,Map Coloring Problems,Optical Illusions,Mazes,Magic Squares,etc.,a neophyte or someone who has been interested in puzzles for years;will find lots new and interesting here.As an example,I became fascinated with Magic Squares while in University.I learned a method to complete any odd-order Magic Square;but try as I may,I could never "crack" even-order ones.I asked the head of the Math Department if he ever tried. A few days later he handed me notes on how to do it--I was thrilled.I was thrilled once again when in this book ,what did I find but a Magic Cube!! Although this is an excellent book in all respects and will give anyone interested in puzzles a lot of enjoyment,and there are along with everything else, 72 challenging puzzles with detailed answers,all kinds of related references for further reading,and a good Glossary;there are two things I would like to mention.For many years ,it was believed that Sam Loyd invented the "15 Puzzle";and it is stated so here in 2004.Jerry Slocum and Dic Sonneveld wrote an excellent book,"The 15 Puzzle" in 2006 which proved that Sam Loyd didn't invent it after all. That just goes to show there's always something new in puzzles.The other comment I have ,is that I'm surprised that the Tangram was not chosen as one of the "greatest". However,with so many to choose from;it's almost like trying to pick the greatest song or the greatest of anything;but I must admit;the authors choice is his perogative ,and as good as any.

A walk through history's most mind-boggling puzzlesEver since the Sphinx asked his legendary riddle of Oedipus, riddles, conundrums, and puzzles of all sizes have kept humankind perplexed and amused. The Liar Paradox and the Towers of Hanoi takes die-hard puzzle mavens on a tour of the world's most enduringly intriguing braintwisters, from K?nigsberg's Bridges and the Hanoi Towers to Fibonacci's Rabbits, the Four Color Problem, and the Magic Square. Each chapter introduces the basic puzzle, discusses the mathematics behind it, and includes exercises and answers plus additional puzzles similar to the one under discussion. Here is a veritable kaleidoscope of puzzling labyrinths, maps,

bridges, and optical illusions that will keep aficionados entertained for hours.Marcel Danesi (Etobicoke, ON, Canada) is the author of Increase Your Puzzle IQ

""With the proliferation of puzzle books, one looks for something different, and here it is! ... This treatment will arouse interest, ally suspicion and banish fear."" (""Mathematical Association of America Online"")""Delightful."" (""Mathematics Teacher"")