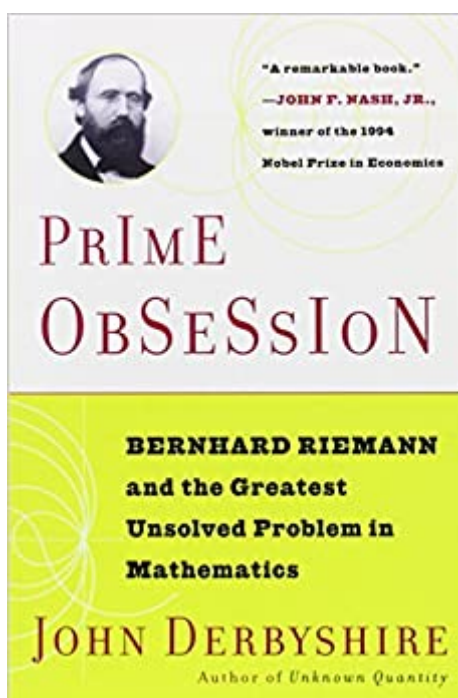The book was found

Prime Obsession: Bernhard Riemann And The Greatest Unsolved Problem In Mathematics

Synopsis

In 1859, Bernhard Riemann, a little-known thirty-two year old mathematician, made a hypothesis while presenting a paper to the Berlin Academy titledÂ â œOn the Number of Prime Numbers Less Than a Given Quantity.â •Â Today, after 150 years of careful research and exhaustive study, the Riemann Hyphothesis remains unsolved, with a one-million-dollar prize earmarked for the first person to conquer it.Alternating passages of extraordinarily lucid mathematical exposition with chapters of elegantly composed biography and history, Prime Obsession is a fascinating and fluent account of an epic mathematical mystery that continues to challenge and excite the world.

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Customer Reviews

Bernhard Riemann was an underdog of sorts, a malnourished son of a parson who grew up to be the author of one of mathematics' greatest problems. In Prime Obsession, John Derbyshire deals brilliantly with both Riemann's life and that problem: proof of the conjecture, "All non-trivial zeros of the zeta function have real part one-half." Though the statement itself passes as nonsense to anyone but a mathematician, Derbyshire walks readers through the decades of reasoning that led to the Riemann Hypothesis in such a way as to clear it up perfectly. Riemann himself never proved the statement, and it remains unsolved to this day. Prime Obsession offers alternating chapters of step-by-step math and a history of 19th-century European intellectual life, letting readers take a breather between chunks of well-written information. Derbyshire's style is accessible but not dumbed-down, thorough but not heavy-handed. This is among the best popular treatments of an

obscure mathematical idea, inviting readers to explore the theory without insisting on page after page of formulae. In 2000, the Clay Mathematics Institute offered a one-million-dollar prize to anyone who could prove the Riemann Hypothesis, but luminaries like David Hilbert, G.H. Hardy, Alan Turing, André Weil, and Freeman Dyson have all tried before. Will the Riemann Hypothesis ever be proved? "One day we shall know," writes Derbyshire, and he makes the effort seem very worthwhile. --Therese Littleton --This text refers to an out of print or unavailable edition of this title.

Bernhard Riemann would make any list of the greatest mathematicians ever. In 1859, he proposed a formula to count prime numbers that has defied all attempts to prove it true. This new book tackles the Riemann hypothesis. Partly a biography of Riemann, Derbyshire's work presents more technical details about the hypothesis and will probably attract math recreationists. It requires, however, only a college-prep level of knowledge because of its crystalline explanations. Derbyshire treats the hypothesis historically, tracking increments of progress with sketches of well-known people, such as David Hilbert and Alan Turing, who have been stymied by it. Carrying a million-dollar bounty, the hypothesis is the most famous unsolved problem in math today, and interest in it will be both sated and stoked by these able authors. Gilbert TaylorCopyright © American Library Association. All rights reserved --This text refers to an out of print or unavailable edition of this title.

Prime Obsession is, as the other reviewers have established, a well-written, understandable introduction to the Riemann Hypothesis. The Kindle edition of this book is priced higher than the paperback edition (11.79 for the Kindle edition, $10.88 for the paperback edition), this was not a deterrence for me, as the cost of the paperback edition + shipping costs would have well exceeded the cost of the Kindle edition for the country that I live in (South Africa).Unfortunately this book is far harder to read on a Kindle than a physical copy would be. The author in explaining the mathematical concepts makes frequent use of, equations, figures and tables, often referring back to an element on a previous page. This requires one to constantly navigate back on the Kindle, which is slow due the nature of the E-ink display. Admittedly this navigation is aided by hyperlinks in the text, which allow one to view a referenced element by clicking on its underlined reference in the text. However, this still requires one to navigate the cursor to the position of the reference in the text and click on it, which can be slow. A quick way to get back to the page you were on before clicking on a hyperlink is to press the "Back" button on your Kindle.The most bothersome aspect of the Kindle edition is that many tables in the book do not display fully on the Kindle in portrait mode (I'm using the Kindle 3rd generation, 6-inch display). In particular, the last columns of a table are often cut off. This can

be remedied to an extent by switching the Kindle to landscape mode, however, I still encountered one or two tables in the book where the last column(s) were cut off in landscape mode, with seemingly no way to scroll in order to reveal their content. Another issue is that of certain exponents in the text, such as "pi" in e^{pi}, appearing alongside their base instead of superscripted, this makes it appear as a multiplication operation instead of exponentiation, I suspect that this is due to the fact that the "pi" in this case is an image instead of text. Instances where images are used to represent symbols in the text, are often noticeable, as these symbols appear blurry in comparison to the surrounding text, also they often appear incorrectly scaled. Although this is noticeable, it is not a major issue in comparison to the two aforementioned issues.My recommendation would be to buy this book in a physical format, as it is undoubtly an excellent book. Navigation and display issues in the Kindle edition make the reading experience unpleasant and the concepts more difficult to understand, due to the fact that one is deterred from going back to a previous equation or figure and not all the tables are fully visible, as well as the issue of exponentiation appearing as multiplication.

From the perspective if getting the reader from A to B, the composite of biography and mathematics is getting to be popular for a good reason - it actually works very well. As with all things, mathematics doesn't just happen, there's no maths fairy that will put a theory under your pillow at night (oh, if only there were...), You need context. The history and biographical details give that context.Good methods can be used badly, but aside from a little awkward phrasing, there was nothing obviously bad here. If someone wanted to understand the elements of maths talked about and how they came about, the book is very respectable.Ok, defects. Some of the tables are broken because whoever adapted the book wasn't very good with HTML. The text is awkward to read in places for the same reason.Any factual defects? Just the usual ones, issues of infinities, some domains not being quite orthodox, etc. Nothing that impacts the accuracy of the main subject, merely side notes where the phrasing could confuse. The main topic is what matters, so just smile and nod when it comes to the maths that simply doesn't matter.If I could rate chunks of book, most would be a 5, with a few scattered 3s throughout. The average is more than 4, but not so high that I'm ok just giving a 5 and having done with it.

Not only is this the best math book I have read, it is the best math book I can imagine being written. Not everyone is going to have the seven or eight college math classes needed to understand the Riemann Hypothesis (and the zeroes of the zeta function) as given in a textbook on algebraic number theory, I certainly do not. However this makes it clear (using math, not words) just how the

RH tells us useful things about prime numbers and exactly what the nontrivial zeros are. It is nonputdownable, and it is the only math book I know like that.

This is a book on advanced math that pulls few punches and yet reads almost like a mystery novel. In an engaging style, Derbyshire very nearly manages a miracle: taking any reader with a sharp mind (no math background strictly needed) through a journey from early observations on prime numbers to current state of the art. He does occasionally resort to glossing over some of the most gnarly bits of math, but other than that he provides the complete mathematical thread. Some will find the history chapters more engrossing, but for me it is the math chapters that stood out. I have read any number of popular books on math that cover little or no real math, resorting instead to hyberbole and gloss (Gleick's Chaos is an extreme example, awful!). This book is the real thing.

I bought this book together with "The Music of the Primes: Searching to Solve the Greatest Mystery in Mathematics". Both are great and are about Riemann hypothesis.However, just as the other book, the paper quality is not so good. I feel that people tend to use good paper for textbook while bad paper for "pop" book. This is not a textbook but I hope the publisher can use better quality paper for this kind of serious pop-science book, just as most mathematics textbook.

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