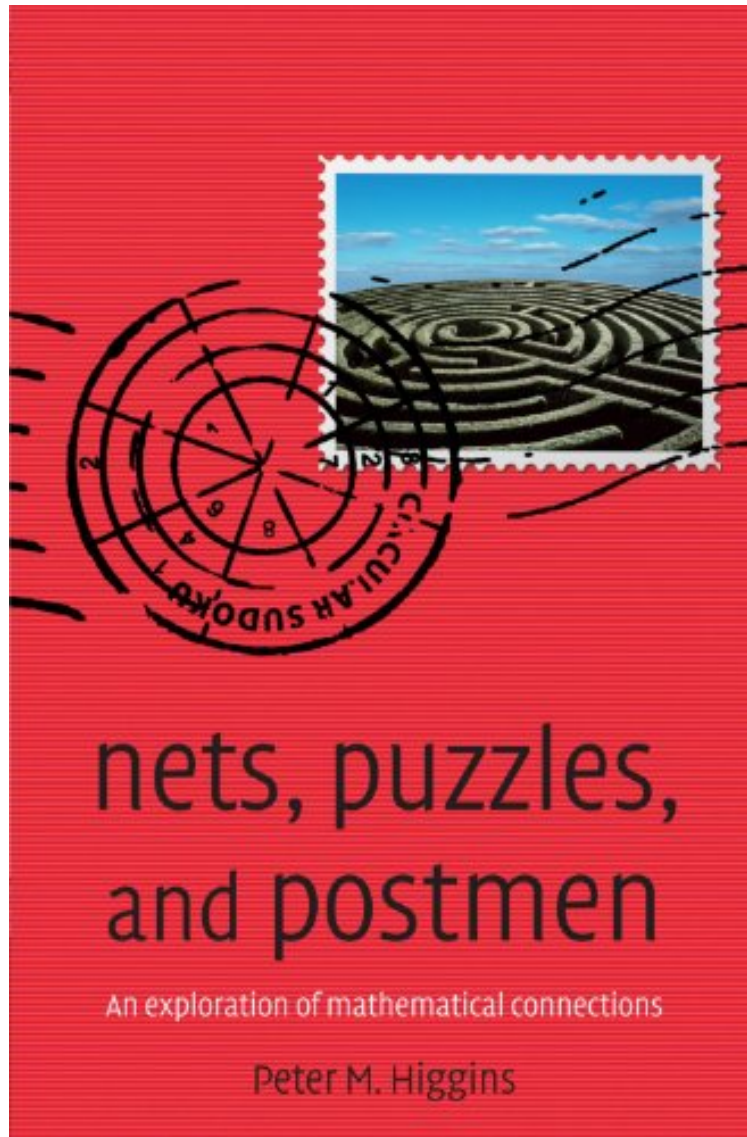


[Free pdf] Nets, Puzzles, and Postmen: An Exploration of Mathematical Connections

Nets, Puzzles, and Postmen: An Exploration of Mathematical Connections

Peter M Higgins

*DOC | *audiobook | ebooks | Download PDF | ePub*



[Download](#)

[Read Online](#)

#3316515 in Books 2009-03-25 Original language: English PDF # 1 5.00 x .70 x 7.60l, .42 #File Name: 0199218439256 pages | File size: 50.Mb

Peter M Higgins : Nets, Puzzles, and Postmen: An Exploration of Mathematical Connections before purchasing it in order to gage whether or not it would be worth my time, and all praised Nets, Puzzles, and Postmen: An Exploration of Mathematical Connections:

0 of 2 people found the following review helpful. ThousandBy BookmeisterA bit verbose at times. The author knows

what he is trying to say, but could be a bit clearer and more succinct. As previous reviewer mentions, this work definitely needs more illustrations, as the very nature of the subject shows that a picture is worth a thousand words. Instead, the reader often gets the thousand words. 10 of 10 people found the following review helpful. Engaging book on casual graph theory and combinatorial complexity. By Digital Puer. I'm glad to have found this little gem of a book on graph theory at my local bookstore. It is a rather odd book, as it's clearly not a rigorous math or computational theory book, and yet it has enough technical sophistication to put it beyond the reach of understanding for a general audience. It seems more apt for people who are non-mathematicians but who have had some background in graph and complexity theory and would like to read some mathematical diversions written in a casual, colloquial style. Although the author likes to term the subject of his book as "nets", it is clearly focused on graph theory, with topics covering a wide range of areas, including planarity, colouring, reachability, network flow, shortest path, and automata. There is also an excellent discussion of the pigeonhole principle and the handshaking lemma, both used in many places throughout the book. The author unfortunately does not cover combinatorial subgraph selection (e.g. clique and vertex cover), approximation algorithms, or all-pairs-shortest-path in much detail. The author's writing style is very engaging and friendly, and it's certainly a nice break from the encyclopedic style found in typical textbooks. The author presents the history of graph theory, including Euler's Königsberg bridges problem, and discusses a number of complexity problems, including sudoku, amino acid chains, marriage arrangement, and Huffman encoding. Although the book is not mathematically rigorous, the author does provide a nice bibliography, and chapter 10 serves as an appendix that goes into mathematical detail with proofs of several of the concepts presented in earlier chapters. There are only a few negatives. The problem of lying tribesmen in chapter 1 is unnecessarily tedious as a motivating example on complexity. Furthermore, although the author has sprinkled diagrams throughout the book, there is certainly a need for more given that the book is centered on graphs. The section on network flow definitely would benefit from more illustrations. In summary, this is an excellent casual book on graph theory and complexity written in an engaging style. 0 of 0 people found the following review helpful. Very good. My only complaint is that there is an error in the 'For Connoisseurs' chapter. A Target Sudoku (Fig. 10.4) is offered as a puzzle, but it appears to be impossible, at least according to the rules described below it. The alleged solution (Fig. 10.5) does not obey the rules listed. For example, it is missing the digit 4 in the outermost ring.

What do road and railway systems, mingling at parties, mazes, family trees, and the internet all have in common? All are networks--either people or places or things that relate and connect to one another. In this lively and fun look at the mathematics of networks, Peter Higgins shows that these phenomena--and many more--all share the same deep mathematical structure. Filled with puzzles and other curious mathematical conundrums, this stimulating book offers new insights into such familiar mathematical quandaries as the four-color map, the bridges of Königsberg, and the Postman Problem (what is the most efficient way of delivering your letters, so you get back to your starting point without having traversed any street twice). Only relatively recently have mathematicians begun to explore networks and connections, and their importance has taken everyone by surprise. *Nets, Puzzles, and Postmen* takes readers on a dazzling tour of this new field, in a book that will delight math buffs everywhere.

"Well written and easy to follow."--Mathematical s"
In *Nets, Puzzles, and Postmen*, Peter Higgins offers a popular account of the mathematics of networks. Readers willing to expose themselves to mathematical reasoning will find themselves rewarded with numerous insight into the structure of networks." -- ScienceAbout the Author
Peter M. Higgins is Professor of Mathematics and Head of Mathematical Sciences at the University of Essex. His previous mathematics books for a popular audience include *Mathematics for the Curious*, *Mathematics for the Imagination*, and *The Official Book of Circular Sudoku*.