



8 puzzle Problem

Step 1: Initial

1	2	3
5	6	0
7	8	4

Step 2

1	2	3
5	0	6
7	8	4

Step 3

1	2	3
5	8	6
7	0	4

Step 4: Final

1	2	3
5	8	6
0	7	4

8 Puzzle Problem Solution

Daniel Ratner



8 Puzzle Problem Solution:

Principles of Artificial Intelligence Nils J. Nilsson, 2014-06-28 A classic introduction to artificial intelligence intended to bridge the gap between theory and practice Principles of Artificial Intelligence describes fundamental AI ideas that underlie applications such as natural language processing automatic programming robotics machine vision automatic theorem proving and intelligent data retrieval Rather than focusing on the subject matter of the applications the book is organized around general computational concepts involving the kinds of data structures used the types of operations performed on the data structures and the properties of the control strategies used Principles of Artificial Intelligence evolved from the author's courses and seminars at Stanford University and University of Massachusetts Amherst and is suitable for text use in a senior or graduate AI course or for individual study Problem-solving Behavior with the 8-puzzle Karl Anders Ericsson, 1974

Problem-solving Behaviour with the 8-puzzle Karl Anders Ericsson, 1974 **Artificial Intelligence** Mohit Thakkar, 2018-02-12 It often happens that when we try to study a subject for some examination or a job interview we just don't find the right content The problem with the reference books is that they are too descriptive for last moment studies Whereas the problem with local publications is that they are inaccurate as compared to the reference books This particular book encapsulates the subject notes on Artificial Intelligence with the combined benefits of reference books local publications It has the accuracy of a reference book as well as the abstraction of a local publication The author studied the subject from various sources such as web lectures reference books online tutorials so on After having a thorough understanding of the subject the author compiled this book for an easy understanding of the subject This book presents the content with utmost simplicity of language and in an abstract manner so that it can be used for last moment studies This book can be used by Students to prepare for their examinations Professionals to prepare for job interviews Individuals willing to have a basic understanding of the domain Artificial Intelligence Happy Reading *Building a machine learning model from scratch* Dr Deepika , Sukhvir Kaur, 2025-04-24 In an era where Artificial Intelligence AI and Machine Learning ML are transforming industries the need for a strong foundational understanding is more critical than ever Building a Machine Learning Model from Scratch is designed to guide readers through the core principles and practical techniques required to construct intelligent systems from the ground up The book begins with an overview of AI and explores essential concepts such as uninformed and informed search strategies logic based reasoning constraint satisfaction planning and decision making in complex environments Logical frameworks like First Order Logic Resolution and Knowledge Engineering are thoroughly discussed to build robust inference systems We then transition into probabilistic reasoning with Bayes Rule Bayesian Networks and Dempster Shafer Theory followed by essential learning methods including decision tree construction and knowledge based learning models With clear explanations algorithmic details and real world applications this book serves as a comprehensive resource for students researchers and professionals seeking to master AI and machine learning at

a fundamental level

AI Fundamentals Dr Gurram Veera Raghavaiah, 2025-11-08 AI Fundamentals AI is The Ruler of IT Today AI is a name given to the Scientific Research i e How to make an Artifact The term Artificial Intelligence is chosen from Greek Word Artifact that means Man Made Machine AI is Branch of Computer Science that relates to Psychology Cognition Behavioral Science AI Research is going on from past 40 years onwards Allen Turing is the father of AI AI is the talk of the IT Industry Today i e simply AI Applications are Ruling the IT Sector and creating wonders now a days This book explores complete information i e needed by the students in learning AI Fundamentals that synthesizing key details from multiple University Led initiatives and resources throughout the World Core Purpose To equip students with practical ethical and strategic knowledge for using AI in academia and future careers emphasizing Human AI collaboration and foundational digital literacy Also explain in detail about AI Fundamentals Applications with Machine Learning The Future is Now Powered by Artificial Intelligence AI Won t Replace Humans But Humans Using AI Will AI refers to the process of creating an artefact Possess Human Perceptual Activities

Security and Policy Driven Computing Lei Liu, 2016-04-19 Security and Policy Driven Computing covers recent advances in security storage parallelization and computing as well as applications The author incorporates a wealth of analysis including studies on intrusion detection and key management computer storage policy and transactional management The book first describes multiple variables and ind

[A Classical Approach to Artificial Intelligence](#) Munesh Chandra Trivedi, There are many books available in the market on the proposed topic but none of them can be termed as comprehensive Besides students face many problems in understanding the language of this books Keeping these points in mind Artificial Intelligence was prepared which should be simple enough to comprehend and comprehensive enough to encompass all the topics of different institutions and universities

Case-based Reasoning Janet L. Kolodner, 1988

Artificial Intelligence Ela Kumar, 2013-12-30 AI is an emerging discipline of computer science It deals with the concepts and methodologies required for computer to perform an intelligent activity The spectrum of computer science is very wide and it enables the computer to handle almost every activity which human beings could It deals with defining the basic problem from viewpoint of solving it through computer finding out the total possibilities of solution representing the problem from computational orientation selecting data structures finding the solution through searching the goal in search space dealing the real world uncertain situations etc It also develops the techniques for learning and understanding which make the computer able to exhibit an intelligent behavior The list is exhaustive and is applied now a days in almost every field of technology This book presents almost all the components of AI like problem solving search techniques knowledge concepts expert system and many more in a very simple language One of the unique features of this book is inclusion of number of solved examples in between the chapters and also at the end of many chapters Real life examples have been discussed to make the reader conversant with the intricate phenomenon of computer science in general and artificial intelligence in particular The book is primarily developed for undergraduate and postgraduate engineering

students Integrated Discrete Production Control Lucas Pun,1992 Integrated Discrete Production systems are a new concept which are proving vital in aiding integrated discrete production activities to achieve their optimum efficiency This book has been written primarily to establish methods for solving analysis and synthesis problems which arise in the progressive integration of intelligent discrete production controls in modern manufacturing and to provide useful theories covering such integrated controls Topics reviewed include industrial artificial intelligence systems IAIS their range of possible applications analyses of the problems they are designed to solve and the methods by which they can be created Various aspects of IAIS which may be either completely automated systems such as robots or decision aid systems such as computer aided design systems are discussed The many facets of creating a successful IAIS include knowledge of automation techniques control theory and skill in artificial intelligence techniques particularly the transformation of automatic control or decision aid processes into computational processes At present these skills are usually found in different people this volume shows how the various skills can be combined to create a compact IAIS that answers current needs The work is intended for engineers interested in the field whose background may be mechanical industrial electronic or control engineering or computing And secondly to teachers offering research level lectures who can use the book to construct a course on Integrated Discrete Production Control

The Pattern Recognition Basis of Artificial Intelligence Donald Tvetter,1998 This book pays extra attention to the new ideas in AI neural networking case based reasoning and memory based reasoning while including the important aspects of traditional symbol processing AI As much as possible these methods are compared with each other so that the reader will see the advantages and disadvantages of each method Second the new and traditional methods are presented as different ways of doing pattern recognition giving unity to the subject matter Third rather than treating AI as just a collection of advanced algorithms it also looks at the problems involved in producing the kind of general purpose intelligence found in human beings who have to deal with the real world

The (n-1)-puzzle and Related Relocation Problems Daniel Ratner,1988

Logic Programming and Automated Reasoning ,1992

The Romance of Words Ernest Weekley,1911

Artificial Intelligence Elaine Rich,1983 The breadth of A I is explored and explained in this best selling text Assuming no prior knowledge it covers topics like neural networks and robotics This text explores the range of problems which have been and remain to be solved using A I tools and techniques The second half of this text is an excellent reference Copyright Libri GmbH All rights reserved

Soulé's Philosophic Practical Mathematics George Soulé,1910

Human Decision Making and Manual Control H.-P. Willumeit,Hans-Peter Willumeit,1986 Hardbound Human Machine Interaction an interdisciplinary research and development area is discussed here by prominent workers in the field This book is the result of the 5th EAM Conference sponsored by Daimler Benz Volkswagen B M W Schering and IBM Deutschland

Archives of Psychology Robert Sessions Woodworth,1937

Annual Review of Psychology Mark R. Rosenzweig,Lyman W. Porter,1979

This Captivating Realm of E-book Books: A Comprehensive Guide Unveiling the Benefits of E-book Books: A Realm of Ease and Flexibility Kindle books, with their inherent mobility and simplicity of access, have liberated readers from the limitations of physical books. Done are the days of lugging cumbersome novels or meticulously searching for specific titles in bookstores. Kindle devices, stylish and portable, effortlessly store an extensive library of books, allowing readers to indulge in their favorite reads anytime, anywhere. Whether commuting on a bustling train, relaxing on a sun-kissed beach, or just cozing up in bed, E-book books provide an unparalleled level of convenience. A Reading World Unfolded: Discovering the Vast Array of Kindle 8 Puzzle Problem Solution 8 Puzzle Problem Solution The E-book Shop, a digital treasure trove of literary gems, boasts an wide collection of books spanning diverse genres, catering to every readers taste and choice. From captivating fiction and mind-stimulating non-fiction to timeless classics and modern bestsellers, the E-book Shop offers an exceptional abundance of titles to explore. Whether looking for escape through immersive tales of imagination and exploration, delving into the depths of past narratives, or expanding ones understanding with insightful works of scientific and philosophy, the E-book Store provides a doorway to a literary universe brimming with endless possibilities. A Transformative Factor in the Bookish Landscape: The Persistent Impact of Kindle Books 8 Puzzle Problem Solution The advent of E-book books has undoubtedly reshaped the bookish landscape, introducing a model shift in the way books are released, disseminated, and consumed. Traditional publishing houses have embraced the digital revolution, adapting their approaches to accommodate the growing need for e-books. This has led to a rise in the availability of E-book titles, ensuring that readers have entry to a vast array of literary works at their fingers. Moreover, E-book books have equalized access to literature, breaking down geographical barriers and offering readers worldwide with similar opportunities to engage with the written word. Irrespective of their place or socioeconomic background, individuals can now immerse themselves in the intriguing world of literature, fostering a global community of readers. Conclusion: Embracing the Kindle Experience 8 Puzzle Problem Solution E-book books 8 Puzzle Problem Solution, with their inherent convenience, versatility, and vast array of titles, have certainly transformed the way we encounter literature. They offer readers the liberty to discover the limitless realm of written expression, whenever, anywhere. As we continue to navigate the ever-evolving online scene, E-book books stand as testament to the enduring power of storytelling, ensuring that the joy of reading remains accessible to all.

https://py.bijouxmedusa.com/files/virtual-library/fetch.php/Grammar_Writing_Practice_Grade_5_Answers.pdf

Table of Contents 8 Puzzle Problem Solution

1. Understanding the eBook 8 Puzzle Problem Solution
 - The Rise of Digital Reading 8 Puzzle Problem Solution
 - Advantages of eBooks Over Traditional Books
2. Identifying 8 Puzzle Problem Solution
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an 8 Puzzle Problem Solution
 - User-Friendly Interface
4. Exploring eBook Recommendations from 8 Puzzle Problem Solution
 - Personalized Recommendations
 - 8 Puzzle Problem Solution User Reviews and Ratings
 - 8 Puzzle Problem Solution and Bestseller Lists
5. Accessing 8 Puzzle Problem Solution Free and Paid eBooks
 - 8 Puzzle Problem Solution Public Domain eBooks
 - 8 Puzzle Problem Solution eBook Subscription Services
 - 8 Puzzle Problem Solution Budget-Friendly Options
6. Navigating 8 Puzzle Problem Solution eBook Formats
 - ePub, PDF, MOBI, and More
 - 8 Puzzle Problem Solution Compatibility with Devices
 - 8 Puzzle Problem Solution Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of 8 Puzzle Problem Solution
 - Highlighting and Note-Taking 8 Puzzle Problem Solution
 - Interactive Elements 8 Puzzle Problem Solution
8. Staying Engaged with 8 Puzzle Problem Solution

- Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers 8 Puzzle Problem Solution
9. Balancing eBooks and Physical Books 8 Puzzle Problem Solution
- Benefits of a Digital Library
 - Creating a Diverse Reading Collection 8 Puzzle Problem Solution
10. Overcoming Reading Challenges
- Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine 8 Puzzle Problem Solution
- Setting Reading Goals 8 Puzzle Problem Solution
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of 8 Puzzle Problem Solution
- Fact-Checking eBook Content of 8 Puzzle Problem Solution
 - Distinguishing Credible Sources
13. Promoting Lifelong Learning
- Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
14. Embracing eBook Trends
- Integration of Multimedia Elements
 - Interactive and Gamified eBooks

8 Puzzle Problem Solution Introduction

Free PDF Books and Manuals for Download: Unlocking Knowledge at Your Fingertips In today's fast-paced digital age, obtaining valuable knowledge has become easier than ever. Thanks to the internet, a vast array of books and manuals are now available for free download in PDF format. Whether you are a student, professional, or simply an avid reader, this treasure trove of downloadable resources offers a wealth of information, conveniently accessible anytime, anywhere. The advent of online libraries and platforms dedicated to sharing knowledge has revolutionized the way we consume information. No longer confined to physical libraries or bookstores, readers can now access an extensive collection of digital books and

manuals with just a few clicks. These resources, available in PDF, Microsoft Word, and PowerPoint formats, cater to a wide range of interests, including literature, technology, science, history, and much more. One notable platform where you can explore and download free 8 Puzzle Problem Solution PDF books and manuals is the internet's largest free library. Hosted online, this catalog compiles a vast assortment of documents, making it a veritable goldmine of knowledge. With its easy-to-use website interface and customizable PDF generator, this platform offers a user-friendly experience, allowing individuals to effortlessly navigate and access the information they seek. The availability of free PDF books and manuals on this platform demonstrates its commitment to democratizing education and empowering individuals with the tools needed to succeed in their chosen fields. It allows anyone, regardless of their background or financial limitations, to expand their horizons and gain insights from experts in various disciplines. One of the most significant advantages of downloading PDF books and manuals lies in their portability. Unlike physical copies, digital books can be stored and carried on a single device, such as a tablet or smartphone, saving valuable space and weight. This convenience makes it possible for readers to have their entire library at their fingertips, whether they are commuting, traveling, or simply enjoying a lazy afternoon at home. Additionally, digital files are easily searchable, enabling readers to locate specific information within seconds. With a few keystrokes, users can search for keywords, topics, or phrases, making research and finding relevant information a breeze. This efficiency saves time and effort, streamlining the learning process and allowing individuals to focus on extracting the information they need. Furthermore, the availability of free PDF books and manuals fosters a culture of continuous learning. By removing financial barriers, more people can access educational resources and pursue lifelong learning, contributing to personal growth and professional development. This democratization of knowledge promotes intellectual curiosity and empowers individuals to become lifelong learners, promoting progress and innovation in various fields. It is worth noting that while accessing free 8 Puzzle Problem Solution PDF books and manuals is convenient and cost-effective, it is vital to respect copyright laws and intellectual property rights. Platforms offering free downloads often operate within legal boundaries, ensuring that the materials they provide are either in the public domain or authorized for distribution. By adhering to copyright laws, users can enjoy the benefits of free access to knowledge while supporting the authors and publishers who make these resources available. In conclusion, the availability of 8 Puzzle Problem Solution free PDF books and manuals for download has revolutionized the way we access and consume knowledge. With just a few clicks, individuals can explore a vast collection of resources across different disciplines, all free of charge. This accessibility empowers individuals to become lifelong learners, contributing to personal growth, professional development, and the advancement of society as a whole. So why not unlock a world of knowledge today? Start exploring the vast sea of free PDF books and manuals waiting to be discovered right at your fingertips.

FAQs About 8 Puzzle Problem Solution Books

What is a 8 Puzzle Problem Solution PDF? A PDF (Portable Document Format) is a file format developed by Adobe that preserves the layout and formatting of a document, regardless of the software, hardware, or operating system used to view or print it. **How do I create a 8 Puzzle Problem Solution PDF?** There are several ways to create a PDF: Use software like Adobe Acrobat, Microsoft Word, or Google Docs, which often have built-in PDF creation tools. Print to PDF: Many applications and operating systems have a "Print to PDF" option that allows you to save a document as a PDF file instead of printing it on paper. Online converters: There are various online tools that can convert different file types to PDF. **How do I edit a 8 Puzzle Problem Solution PDF?** Editing a PDF can be done with software like Adobe Acrobat, which allows direct editing of text, images, and other elements within the PDF. Some free tools, like PDFescape or Smallpdf, also offer basic editing capabilities. **How do I convert a 8 Puzzle Problem Solution PDF to another file format?** There are multiple ways to convert a PDF to another format: Use online converters like Smallpdf, Zamzar, or Adobe Acrobats export feature to convert PDFs to formats like Word, Excel, JPEG, etc. Software like Adobe Acrobat, Microsoft Word, or other PDF editors may have options to export or save PDFs in different formats. **How do I password-protect a 8 Puzzle Problem Solution PDF?** Most PDF editing software allows you to add password protection. In Adobe Acrobat, for instance, you can go to "File" -> "Properties" -> "Security" to set a password to restrict access or editing capabilities. Are there any free alternatives to Adobe Acrobat for working with PDFs? Yes, there are many free alternatives for working with PDFs, such as: LibreOffice: Offers PDF editing features. PDFsam: Allows splitting, merging, and editing PDFs. Foxit Reader: Provides basic PDF viewing and editing capabilities. How do I compress a PDF file? You can use online tools like Smallpdf, ILovePDF, or desktop software like Adobe Acrobat to compress PDF files without significant quality loss. Compression reduces the file size, making it easier to share and download. Can I fill out forms in a PDF file? Yes, most PDF viewers/editors like Adobe Acrobat, Preview (on Mac), or various online tools allow you to fill out forms in PDF files by selecting text fields and entering information. Are there any restrictions when working with PDFs? Some PDFs might have restrictions set by their creator, such as password protection, editing restrictions, or print restrictions. Breaking these restrictions might require specific software or tools, which may or may not be legal depending on the circumstances and local laws.

Find 8 Puzzle Problem Solution :

grammar writing practice grade 5 answers

[good thesis paper topics](#)

[geotechnical engineering problems and solutions](#)

german pronouns and prepositions free

grammar dimensions 4 answer key

glencoe science chemistry matter and change science notebook answer key

guia practica de la sofrologia pdf

getting the angular position from gyroscope data pieter

geometria analitica ejercicios resueltos

green day sheet music anthology easy piano

generator set neutral earthing fg wilson

graphic design thinking beyond brainstorming

greek gods and goddesses names and pictures

generator differential protection relay stability vis a

grammar in use intermediate self study reference and practice for students of north american english with answers

8 Puzzle Problem Solution :

Validation of Cleaning Processes (7/93) Aug 26, 2014 — Examine the detail and specificity of the procedure for the (cleaning) process being validated, and the amount of documentation required. We ... PDA Technical Report No. 29, Revised 2012 (TR 29) ... 49, Points to Consider for Biotechnology Cleaning Validation. It presents updated information that is aligned with lifecycle approaches to validation and ... Guidance on aspects of cleaning validation in active ... The PDA Technical Report No. 29 - Points to Consider for Cleaning Validation⁴ is also recommended as a valuable guidance document from industry. The following ... Annex 2 Visually clean is an important criterion in cleaning validation. It should be one of the acceptance criteria used on a routine basis. Personnel responsible for ... Points to Consider for Biotechnology Cleaning Validation 49, Points to Consider for Biotechnology Cleaning Validation aligns cleaning validation practices with the life cycle approaches to validation, as enabled by ... What is Cleaning Validation in the Pharmaceutical Industry? Cleaning validation is a process used in the pharmaceutical, biotech, and medical device industries to provide documented evidence that equipment and facilities ... draft working document for comments Sep 21, 2020 — Aspects of cleaning validation and cleaning verification should be considered in quality metrics, with. 471 performance indicators identified ... Cleaning Validation Guidelines - A Complete List 2022 [May 2020] Points to consider on the different approaches -including HBEL - to establish carryover limits in cleaning validation for identification of ... Technical Report No. 49 Points to Consider for ... by TF Contributors — Cleaning validation plays an important role in reducing the possibility of product contamination from biopharmaceutical

manufacturing equipment. It demonstrates ... Cleaning Validation: Protocol & Guidelines Cleaning validation is a procedure of establishing evidence that cleaning processes for manufacturing equipment prevents product contamination. Cleaning ...

Strangers to These Shores: Race and Ethnic Relations in ... Strangers to These Shores: Race and Ethnic Relations in the United States (Book Alone) (8th Edition) [Parrillo, Vincent N.] on Amazon.com. Strangers to These Shores: Race and Ethnic Relations ... Amazon.com: Strangers to These Shores: Race and Ethnic Relations in the United States with Research Navigator (8th Edition): 9780205543236: Parrillo, ... Strangers to These Shores: Race and Ethnic Relations in ... Strangers to These Shores: Race and Ethnic Relations in the United States (Book Alone) (8th Edition). by Parrillo, Vincent N. Used. Condition: Used - Very ... Strangers to These Shores: Race and Ethnic Relations in the ... Strangers to These Shores: Race and Ethnic Relations in the United States (Book Alone) (8th Edition) · by Parrillo, Vincent N · About This Item · Synopsis · Reviews. Race and Ethnic Relations in the United States (Book Alone) (8th ... Title: Strangers to These Shores: Race and Ethnic Relations in the United States (Book Alone) (8th Edition); ISBN10: 0205457630; EAN: 9780205457632; Genre ... Race and Ethnic Relations in the United States Book Alone 8th ... Pre-Owned Strangers to These Shores: Race and Ethnic Relations in the United States Book Alone 8th Edition Hardcover 0205457630 9780205457632 Vincent N. RACE AND ETHNIC RELATIONS IN By Vincent N. Parrillo ... STRANGERS TO THESE SHORES: RACE AND ETHNIC RELATIONS IN THE UNITED STATES WITH RESEARCH NAVIGATOR (8TH EDITION) By Vincent N. Parrillo - Hardcover **BRAND ... Strangers to These Shores: Race and Ethnic ... Strangers to These Shores: Race and Ethnic Relations in the United States by Vincent M. Parrillo. Source: Contemporary Sociology,. Vol. 11, No. 3 (May, 1982), ... Strangers to these shores : race and ethnic ... Strangers to these shores : race and ethnic relations in the United States ; Author: Vincent N. Parrillo (Author) ; Edition: Twelfth edition View all formats and ... TIP 59: Improving Cultural Competence by ATI PROTOCOL — ... United States than the Mediterranean peoples of Southern Europe (e.g., Italians, Greeks). What Is Cultural Identity? Cultural identity describes an ... Database Systems : Models,Languages,Design and ... Amazon.com: Database Systems : Models,Languages,Design and Application Programming eBook : Elmasri, Ramez, Navathe, Shamkant B.: Kindle Store. Database Systems: Models, Languages, Design, and ... Database Systems: Models, Languages, Design, and Application Programming · Mobile databases, GIS and Genome Databases under emerging applications · Database ... Models, Languages, Design, and Application Programming Database Systems : Models, Languages, Design, and Application Programming by Navathe, Shamkant, Elmasri, Ramez and a great selection of related books, ... Fundamentals of Database Systems Clear explanations of theory and design, broad coverage of models and real systems, and an up-to-date introduction to modern database technologies result in ... Database Systems: Models, Languages,... book by Ramez ... Cover for "Database Systems : Models, Languages, Design, and Application Programming" ... Database Systems: Design, Implementation, and Management. Carlos M ... Database Systems : Models, Languages, Design, and ... Database Systems : Models, Languages, Design, and

Application Programming by Shamkant B. Navathe and Ramez Elmasri (Trade Paperback, New Edition). Database Systems: Models, Languages, Design, and ... Database Systems: Models, Languages, Design, and Application Programming · Ramez Elmasri, Shamkant B. Navathe · About the author. Fundamentals of Database Systems Seventh Edition Cited by 1 — This book introduces the fundamental concepts necessary for designing, using, and implementing database systems and database applications. Database Systems - Higher education | Pearson Our presentation stresses the fundamentals of database modeling and design, the languages and models provided by the database management systems, and database ... Fundamentals of Database Systems 6th edition ... Fundamentals of Database Systems: Models, Languages, Design, and Application Programming. Edition: 6th edition. ISBN-13: 978-0136086208. Format: Hardback.