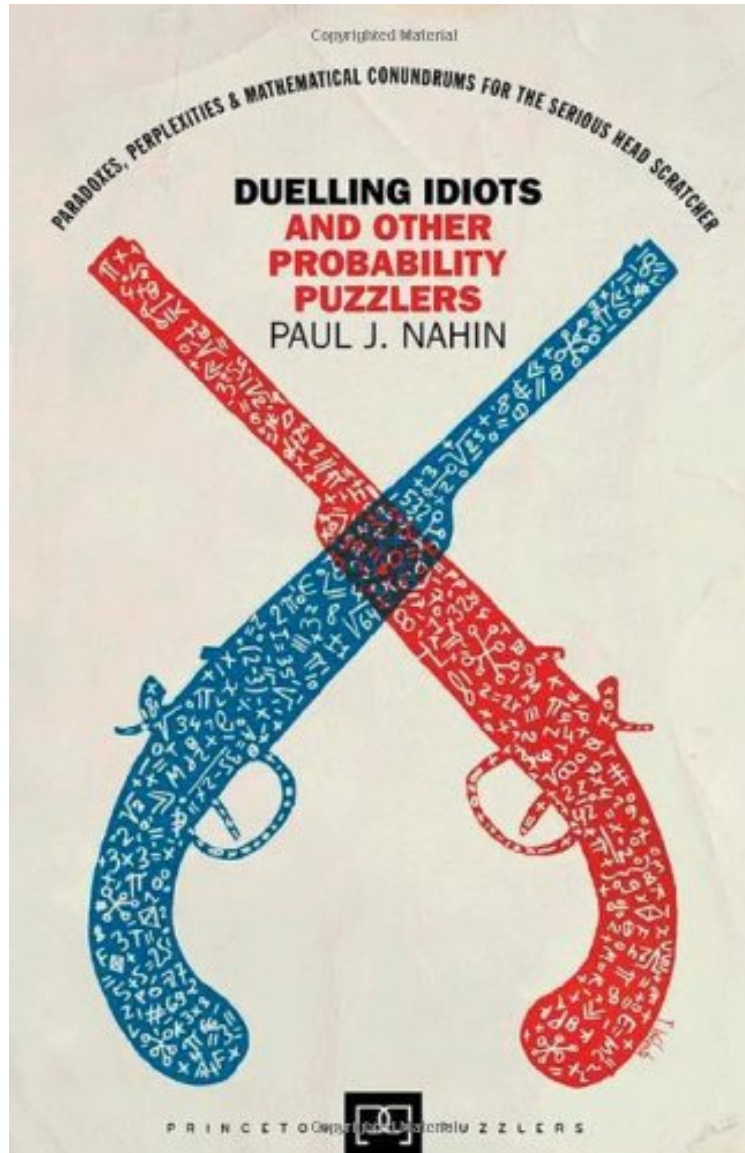


[PDF] Duelling Idiots and Other Probability Puzzlers (Princeton Puzzlers)

## Duelling Idiots and Other Probability Puzzlers (Princeton Puzzlers)

Paul J. Nahin

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**Paul J. Nahin : Duelling Idiots and Other Probability Puzzlers (Princeton Puzzlers)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Duelling Idiots and Other Probability Puzzlers (Princeton Puzzlers):

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an elementary course in probability"... "If you don't know what that sentence said, this book may be just a bit too much for you, at least for now."Ouch. I was looking for something a little simpler...My suggestion: if you're a noob like me, stay away, even if you found the kindle sample interesting.At least until you finish your elementary course in probability.21 of 32 people found the following review helpful. Exactly who did the author have in mind?By Dr. HoenikkerThe best puzzle books start with problems that are interesting and non trivial, and offer unexpected solutions. They appeal to a crowd with different levels of education and offer a new idea or two to all. They will lead an unsuspecting layman to a new beautiful mathematical subject, and treat a pro with a lighthearted yet technically sound look at the concepts he is already familiar with."Dueling idiots" is none of that. To read it you must be more than familiar with probability theory, and at ease with going through rather tedious calculations and using matlab. Yet all a sophisticated reader finds here is technical sloppiness and absence of fresh ideas.I am giving it two stars rather than one because it could provide some probability theory buff with a nice set of "real life" applications -- good as an auxiliary text book for an undergraduate probability class e.g. Apart from that, you will find a better puzzle book almost anywhere you look.28 of 29 people found the following review helpful. Excellent probability teasers and solutions!By Guillermo D IrisarriThis is yet another excellent contribution by professor Paul Nahin. The format of this book is different from his previous texts, but the high quality content is still there.The book is divided into three main parts. In the first part he presents the problems and elaborates on their history, if any, and provides hints or solves a related problem. In the second part, he provides complete solutions to the problems, both analytical and through computer simulation in most cases. Finally, in the third part, he includes all the programs (MATLAB version) used to obtain the solution to the puzzlers.The book also includes a chapter on random number generation, a key element of Montecarlo simulation.Some knowledge of basic probability and random variables is required to fully understand the problems and solutions. Also, knowledge of calculus is needed (particularly integral calculus). To understand the computer solutions the reader must know MATLAB. The computer simulations, however, can be rewritten using any language. Personally, I prefer Perl and that is what I used to run some of the simulations.I believe that the computer programs could have been included in a CD or diskette, or a download site could have been used. Then, the 67 or so pages dedicated to these programs, could have been used to provide 5-10 additional problems!

What are your chances of dying on your next flight, being called for jury duty, or winning the lottery? We all encounter probability problems in our everyday lives. In this collection of twenty-one puzzles, Paul Nahin challenges us to think creatively about the laws of probability as they apply in playful, sometimes deceptive, ways to a fascinating array of speculative situations. Games of Russian roulette, problems involving the accumulation of insects on flypaper, and strategies for determining the odds of the underdog winning the World Series all reveal intriguing dimensions to the workings of probability. Over the years, Nahin, a veteran writer and teacher of the subject, has collected these and other favorite puzzles designed to instruct and entertain math enthusiasts of all backgrounds. If idiots A and B alternately take aim at each other with a six-shot revolver containing one bullet, what is the probability idiot A will win? What are the chances it will snow on your birthday in any given year? How can researchers use coin flipping and the laws of probability to obtain honest answers to embarrassing survey questions? The solutions are presented here in detail, and many contain a profound element of surprise. And some puzzles are beautiful illustrations of basic mathematical concepts: "The Blind Spider and the Fly," for example, is a clever variation of a "random walk" problem, and "Duelling Idiots" and "The Underdog and the World Series" are straightforward introductions to binomial distributions. Written in an informal way and containing a plethora of interesting historical material, Duelling Idiots is ideal for those who are fascinated by mathematics and the role it plays in everyday life and in our imaginations.

From Publishers Weekly"This is a book for people who really like probability problems," says Nahin (An Imaginary Tale; Time Travel), a professor of electrical engineering at the University of New Hampshire. If duelists place one bullet in one six-shooter and take turns firing at each other, what's the chance that the guy with the first shot wins? If anti-aircraft missiles tell friend from foe with a system that fails 10% of the time (so that 10% of friendly planes get attacked), how much would the friendly fire rate drop if three such systems were used instead? Though probability problems can look, from afar, like extrapolations of common sense, many require mental contortions and counterintuitive realizations that make the right solutions hard to find. Those solutions, in turn, lead readers into neat concepts from higher mathematics—the Markov chain (that involves matrices) and the field called geometric probability. Nahin has written neither an academic book, nor one for an audience of novices: he wants recreational-math readers who will enjoy solving these fairly complex problems and who will compare their own achievements to the several-page solutions he gives. The volume thus has three parts of roughly equal length, all packed with graphs and equations. The first gives "The Problems" and the second yields "The Solutions"; the third explains how computers generate random ("more precisely called pseudo-random") numbers, and concludes with a series of programs that simulate the problems in part one. Nahin's sophisticated puzzles, and their accompanying explanations, have a far better than even chance of fascinating and preoccupying the mathematically literate readership they seek.

Copyright 2000 Reed Business Information, Inc. "Nahin's sophisticated puzzles, and their accompanying explanations, have a far better than even chance of fascinating and preoccupying the mathematically literate readership they seek."--Publisher's Weekly"An entertaining, thought-provoking collection of twenty-one puzzles. . . .These puzzles invite the reader to think intuitively, mathematically, and creatively about the laws of probability as they apply in lighthearted, often counterintuitive ways to a diverse collection of practical and speculative situations."--Mathematics Teacher"By following Nahin's informal style it is possible to set [the examples] up quickly from first principles and slip them into courses on calculus, algebra, or scientific programming. They also offer a wealth of topics for undergraduate projects. Those duelling idiots are fighting over a goldmine."--Des Higham, MSOR ConnectionsFrom the Inside Flap"For those of us who thoroughly enjoy a good puzzle, Duelling Idiots is indeed a welcome book. What Paul Nahin offers is essentially the mathematical equivalent of a collection of Far Side cartoons: a series of quirky vignettes, each with an amusing punchline that reveals something new about an offbeat aspect of reality."--Mark Denny, Stanford University"Duelling Idiots and Other Probability Puzzlers seeks to teach the fundamentals of elementary probability theory using topics that are familiar to most everyone. Its light-hearted way of explaining serious subjects is a refreshing approach."--Robert B. Banks, author of Towing Icebergs, Falling Dominoes and of Slicing Pizzas, Racing Turtles