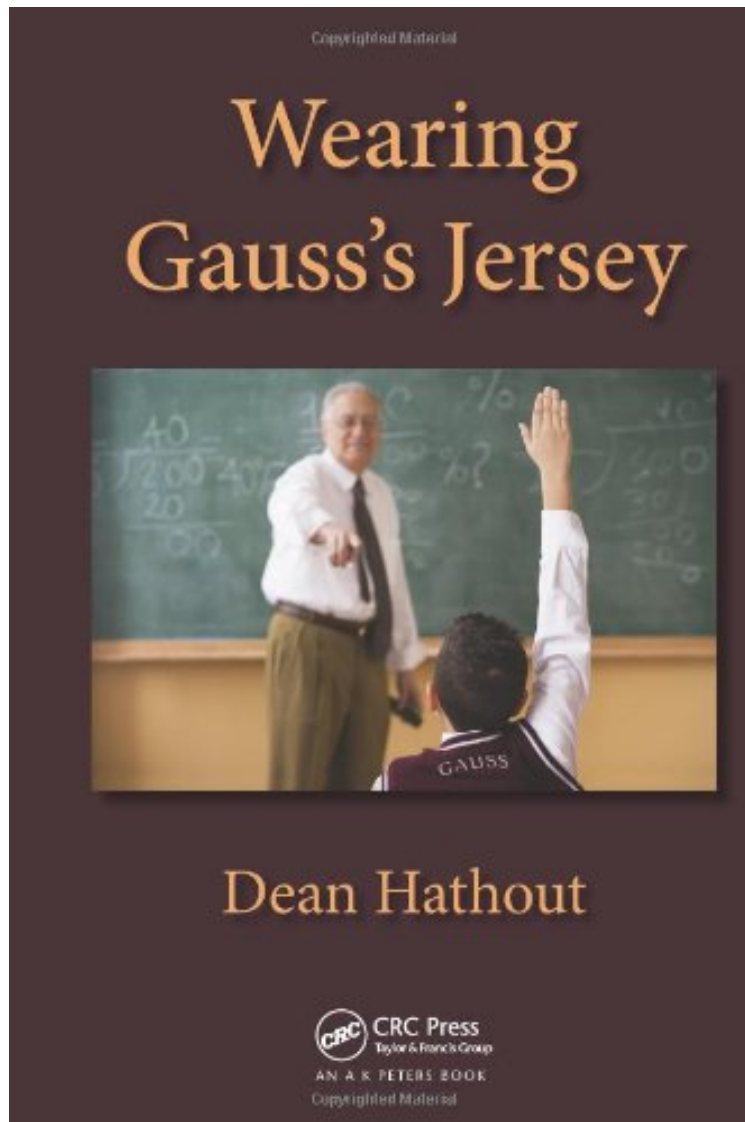


[Download] Wearing Gauss Jersey

Wearing Gauss Jersey

Dean Hathout

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Dean Hathout : Wearing Gauss Jersey before purchasing it in order to gage whether or not it would be worth my time, and all praised Wearing Gauss Jersey:

0 of 0 people found the following review helpful. Five StarsBy Beth Bryantthanks5 of 5 people found the following review helpful. Only One Problem...By Let's Compare Options PreptorialOnly one problem: in the universe, not with this gem of a book! Dr. Dean manages to boil all math shortcuts down to a single algorithm (technically impossible), but by the time you are finished studying this book (true, it can't be "read" unless you are very advanced in math), you'll see something very few math books convey: the unity of it all.The most reductionist definition of math I've ever

found is Oxford's: "How does A relate to B?" Here, Dean gives us a much more intuitive look at the "beneath it all" of math, and it is a page turning surprise! The answer comes gradually as you watch Dr. Dean's one-two punch many times: 1. How would you do this (impossibly complex to tedious) problem then 2. Hey, check out this shortcut! I erroneously thought that the only way to demonstrate agonizingly complex series, combinatorics, Big O and other Olympiad-like problems was by either dumbing down the material for general readers or providing such complex analytic, stochastic, numeric or qualitative techniques that the average bright reader would be lost. Dean has added an entirely new category with this book: show the delicious "intuitive" shortcuts math offers, and when you do present complex formulae, take the time to explain WHAT an exponent of an exponent means to those readers a little rusty in algebra. Even more impressively, show, in every case, WHY that summation sign isn't just "convenient shorthand for..." as virtually EVERY other math text explains, but also a time-saving, problem-simplifying SHORTCUT that makes tedious, impossible problems delightful, fun, more like puzzles, and much more quickly solvable. Of course we know Gauss loved sequences and series-- what can be more tedious, impossible and boring than problems that look like they could/should (and often do) take hours, months, years or terabytes to solve? The twinkling genius of this wonderful text is that it only shows us enough of the frustration to then relieve us with the surprise answer-- a detective story that, granted, still takes a lot of work to "get!" There also is a "surprise" ending like a good novel, but I won't give it away. But, hint, it is like the beginning, and unveils, in a way I've never seen, how all of math hangs together, and how there really is "only one" math problem under all of it! You can't just go to the end to get this, the whole book, and all the problem examples, are pieces of the puzzle that unveil this unity. I'm a volunteer at preptorial dot org where we create problems to help students pass standardized tests (free). In that frame, this text is the ONLY one of hundreds I read each week for that project that is a "meta" problem book: it shows "the problem with problems" and gives a kind of intuitive math skill that, as Einstein said: "Can distinguish a child who will excel in math because they love puzzles." The skill is a kind of delicious "laziness" that refuses to accept the impossibility of tedium and difficulty, and looks at both intuitive and ingenious ways to "reframe" the whole problem. What a skill to have in any aspect of life! Highly recommended. DO CHECK the generous "look inside" provided to be sure the problems aren't at a level that would bore or frustrate. I'd put them at advanced High School, but that depends on the High School, right?!

Wearing Gauss's Jersey focuses on "Gauss problems," problems that can be very tedious and time consuming when tackled in a traditional, straightforward way but if approached in a more insightful fashion, can yield the solution much more easily and elegantly. The book shows how mathematical problem solving can be fun and how students can improve their mathematical insight, regardless of their initial level of knowledge. Illustrating the underlying unity in mathematics, it also explores how problems seemingly unrelated on the surface are actually extremely connected to each other. Each chapter starts with easy problems that demonstrate the simple insight/mathematical tools necessary to solve problems more efficiently. The text then uses these simple tools to solve more difficult problems, such as Olympiad-level problems, and develop more complex mathematical tools. The longest chapters investigate combinatorics as well as sequences and series, which are some of the most well-known Gauss problems. These topics would be very tedious to handle in a straightforward way but the book shows that there are easier ways of tackling them.

"Now, were I a very young Ramanujan-want-to-be growing up in some corner of the world, what book if the conditions of such a scenario limited my poor library to just one book would be a wonderful treasure trove of problems for me on which to hone my skills? In essence, this is more or less the idea and purpose of Hathouts book if I understand him correctly. He presents the reader with statements of and solutions to 66 Gauss problems selected from discrete mathematics, combinatorics, elementary analysis, and geometry." Andrew James Simoson, *Mathematical s*, October 2013 " a vital addition to any mathematician's reference and teaching idea collection, highly recommended." Midwest Book "The book is perhaps best enjoyed in small doses; while the mathematics is insightful and usually quite interesting, there is a lot to process. The payoff is well-worth the effort, even if that effort is expended over time; everyone will likely come away with some new "aha!" insights. Mark Bollman, *MAA s*