

[Books] A Mind For Numbers How To Excel At Math And Science Even If You Flunked Algebra

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Related with A Mind For Numbers How To Excel At Math And Science Even If You Flunked Algebra:

A Mind For Numbers-Barbara Oakley 2014-07-31 The companion book to COURSERA®'s wildly popular massive open online course "Learning How to Learn" Whether you are a student struggling to fulfill a math or science requirement, or you are embarking on a career change that requires a new skill set, A Mind for Numbers offers the tools you need to get a better grasp of that intimidating material. Engineering professor Barbara Oakley knows firsthand how it feels to struggle with math. She flunked her way through high school math and science courses, before enlisting in the army immediately after graduation. When she saw how her lack of mathematical and technical savvy severely limited her options—both to rise in the military and to explore other careers—she returned to school with a newfound determination to re-tool her brain to master the very subjects that had given her so much trouble throughout her entire life. In A Mind for Numbers, Dr. Oakley lets us in on the secrets to learning effectively—secrets that even dedicated and successful students wish they'd known earlier. Contrary to popular belief, math requires creative, as well as analytical, thinking. Most people think that there's only one way to do a problem, when in actuality, there are often a number of different solutions—you just need the creativity to see them. For example, there are more than three hundred different known proofs of the Pythagorean Theorem. In short, studying a problem in a laser-focused way until you reach a solution is not an effective way to learn. Rather, it involves taking the time to step away from a problem and allow the more relaxed and creative part of the brain to take over. The learning strategies in this book apply not only to math and science, but to any subject in which we struggle. We all have what it takes to excel in areas that don't seem to come naturally to us at first, and learning them does not have to be as painful as we might think! From the Trade Paperback edition.

A Mind for Numbers-Barbara A. Oakley 2014 An engineering professor who started out doing poorly in mathematical and technical subjects in school offers tools, tips and techniques to learning the creative and analytical thought processes that will lead to achievement in math and science. Original. A Brain for Numbers-Andreas Nieder 2019-11-19 How our intuitive understanding of numbers is deeply rooted in our biology, traceable through both evolution and development. Humans' understanding of numbers is intuitive. Infants are able to estimate and calculate even before they learn the words for numbers. How have we come to possess this talent for numbers? In A Brain for Numbers, Andreas Nieder explains how our brains process numbers. He reports that numerical competency is deeply rooted in our biological ancestry; it can be traced through both the evolution of our species and the development of our individual minds. It is not, as it has been traditionally explained, based on our ability to use language. We owe our symbolic mathematical skills to the nonsymbolic numerical abilities that we inherited from our ancestors. The principles of mathematics, Nieder tells us, are reflections of the innate dispositions wired into the brain. Nieder explores how the workings of the brain give rise to numerical competence, tracing flair for numbers to dedicated "number neurons" in the brain. Drawing on a range of methods including brain imaging techniques, behavioral experiments, and twin studies, he outlines a new, integrated understanding of the talent for numbers. Along the way, he compares the numerical capabilities of humans and animals, and discusses the benefits animals reap from such a capability. He shows how the neurobiological roots of the brain's nonverbal quantification capacity are the evolutionary foundation of more elaborate numerical skills. He discusses how number signs and symbols are represented in the brain; calculation capability and the "neuromythology" of mathematical genius; the "start-up tools" for counting and developmental of dyscalculia (a number disorder analogous to the reading disorder dyslexia); and how the brain processes the abstract concept of zero.

Mindshift-Barbara Oakley 2017 In an age when we are constantly being asked to retrain and reinvent ourselves, to adapt to new technologies and changing industries, this book assuages our fears and inspires us with a sense of possibility. Our passions and talents may actually surprise us. In Mindshift, Barbara Oakley tells the stories of people who have overcome learning "handicaps" of all kinds—such as Imposter's Syndrome and advancing age—and shows how we can turn perceived weaknesses into strengths. For example, people may feel like they're at a disadvantage if they pursue a new field later in life; yet those who change careers can be fertile cross-pollinators—they bring valuable insights from one discipline to another. The power of simple persistence in building talent is also often underestimated. Dr. Oakley reveals the latest neuroscientific insights into how our brains change when we learn something new. She shares strategies for learning that are backed by brain science, including practical exercises to apply in our own lives. Praise for A Mind for Numbers

Learning How to Learn-Barbara Oakley, PhD 2018-08-07 A surprisingly simple way for students to master any subject—based on one of the world's most popular online courses and the bestselling book A Mind for Numbers A Mind for Numbers and its wildly popular online companion course "Learning How to Learn" have empowered more than two million learners of all ages from around the world to master subjects that they once struggled with. Fans often wish they'd discovered these learning strategies earlier and ask how they can help their kids master these skills as well. Now in this new book for kids and teens, the authors reveal how to make the most of time spent studying. We all have the tools to learn what might not seem to come naturally to us at first—the secret is to understand how the brain works so we can unlock its power. This book explains: • Why sometimes letting your mind wander is an important part of the learning process • How to avoid "rue think" in order to think outside the box • Why having a poor memory can be a good thing • The value of metaphors in developing understanding • A simple, yet powerful, way to stop procrastinating Filled with illustrations, application questions, and exercises, this book makes learning easy and fun.

Evil Genes-Barbara Oakley, PhD 2010-06-28 Have you ever heard of a person who left you wondering, "How could someone be so twisted? So evil?" Prompted by clues in her sister's diary after her mysterious death, author Barbara Oakley takes the reader inside the head of the kinds of malevolent people you know, perhaps all too well, but could never understand. Starting with psychology as a frame of reference, Oakley uses cutting-edge images of the working brain to provide startling support for the idea that "evil" people act the way they do mainly as the result of a dysfunction. In fact, some deceitful, manipulative, and even sadistic behavior appears to be programmed genetically—suggesting that some people really are born to be bad. Oakley links the latest findings of molecular research to a wide array of seemingly unrelated historical and current phenomena, from the harems of the Ottomans and the chummy jokes of "Uncle Joe" Stalin, to the remarkable memory of inventor Warren Buffet. Throughout, she never loses sight of the personal cost of evil genes as she unravels the mystery surrounding her sister's enigmatic life—and death. Evil Genes is a tour-de-force of popular science writing that brilliantly melds scientific research with intriguing family history and puts both a human and scientific face to evil.

Calculus Made Easy-Silvanus Phillips Thompson 1914

Workbook - a Mind for Numbers by Barbara Oakley-John Core 2014-07-21 A 30 day workbook for turning words into actions and actions into results Imagine 2 scenarios. In the first one you have just finished reading A Mind For Numbers by Barbara Oakley. It was a great book and you remember that it mentioned a lot of smart things. But you can't remember much of it now as you close the book. In the second scenario you have just finished the same book. The difference now is that you have a plan for how to implement this new knowledge to improve your life. Most people will find themselves in scenario one. We believe that reading is an investment. You spend time with a book because you hope that it will make you happier, healthier, wealthier or smarter. But simply just reading a great book is not enough. You have to take action! This workbook helps you do just that and makes it easier for you to make real changes from the books you read.

Cold-Blooded Kindness-Barbara Oakley, PhD 2011-04-01 In this searing exploration of deadly codependency, the author takes the reader on a spellbinding voyage of discovery that examines the questions: Are some people naturally too caring? Is caring sometimes a mask for darker motives? Can science help us understand how our concerns for others can hurt everything we hold dear? This gripping story brings extraordinary insight to our deepest questions. Is kindness always the right answer? Is kindness always what it seems?

The Math Gene-Keith Devlin 2001-05-17 Why is math so hard? And why, despite this difficulty, are some people so good at it? If there's some inborn capacity for mathematical thinking—which there must be, otherwise no one could do it—why can't we all do it well? Keith Devlin has answers to all these difficult questions, and in giving them shows us how mathematical ability evolved, why it's a part of language ability, and how we can make better use of this innate talent.He also offers a breathtakingly new theory of language development—that language evolved in two stages, and its main purpose was not communication—to show that the ability to think mathematically arose out of the same symbol-manipulating ability that was so crucial to the emergence of true language. Why, then, can't we do math as well as we can speak? The answer, says Devlin, is that we can and do—we just don't recognize when we're using mathematical reasoning. How to Be a High School Superstar-Cal Newport 2010-07-27 Do Less, Live More, Get Accepted What if getting into your reach schools didn't require four years of excessive A.P. classes, overwhelming activity schedules, and constant stress? In How to Be a High School Superstar, Cal Newport explores the world of relaxed superstars—students who scored spots at the nation's top colleges by leading uncluttered, low stress, and authentic lives. Drawing from extensive interviews and cutting-edge science, Newport explains the surprising truths behind these superstars' mixture of happiness and admissions success, including: · Why doing less is the foundation for becoming more impressive. · Why demonstrating passion is meaningless, but being interesting is crucial. · Why accomplishments that are hard to explain are better than accomplishments that are hard to do. These insights are accompanied by step-by-step instructions to help any student adopt the relaxed superstar lifestyle—proving that getting into college doesn't have to be a chore to survive, but instead can be the reward for living a genuinely interesting life.

Powerful Teaching-Pooja K. Agarwal 2019-05-13 Unleash powerful teaching and the science of learning in your classroom Powerful Teaching: Unleash the Science of Learning empowers educators to harness rigorous research on how students learn and unleash it in their classrooms. In this book, cognitive scientist Pooja K. Agarwal, Ph.D., and veteran K-12 teacher Patrice M. Bain, Ed.S., decipher cognitive science research and illustrate ways to successfully apply the science of learning in classrooms settings. This practical resource is filled with evidence-based strategies that are easily implemented in less than a minute—without additional prepping, grading, or funding! Research demonstrates that these powerful strategies raise student achievement by a letter grade or more; boost learning for diverse students, grade levels, and subject areas; and enhance students' higher order learning and transfer of knowledge beyond the classroom. Drawing on a fifteen-year scientist-teacher collaboration, more than 100 years of research on learning, and rich experiences from educators in K-12 and higher education, the authors present highly accessible step-by-step guidance on how to transform teaching with four essential strategies: Retrieval practice, spacing, interleaving, and feedback-driven metacognition. With Powerful Teaching, you will: Develop a deep understanding of powerful teaching strategies based on the science of learning Gain insight from real-world examples of how evidence-based strategies are being implemented in a variety of academic settings Think critically about your current teaching practices from a research-based perspective Develop tools to share the science of learning with students and parents, ensuring success inside and outside the classroom Powerful Teaching: Unleash the Science of Learning is an indispensable resource for educators who want to take their instruction to the next level. Equipped with scientific knowledge and evidence-based tools, turn your teaching into powerful teaching and unleash student learning in your classroom.

The Math Instinct-Keith Devlin 2009-04-29 There are two kinds of math: the hard kind and the easy kind. The easy kind, practiced by ants, shrimp, Welsh Corgis -- and so -- is innate. But what innate calculating skills do we humans have? Leaving aside built-in mathematics, such as the visual system, ordinary people do just fine when faced with mathematical tasks in the course of the day. Yet when they are confronted with the same tasks presented as "math," their accuracy often drops. If we have innate mathematical ability, why do we have to teach math and why do most of us find it so hard to learn? Are there tricks or strategies that the ordinary person can do to improve mathematical ability? Can we improve our math skills by learning from dogs, cats, and other creatures that "do math"? The answer to each of these questions is a qualified yes. All these examples of animal math suggest that if we want to do better in the formal kind of math, we should see how it arises from natural mathematics. From NPR's "Math Guy," The Math Instinct is a real celebration of innate math sense and will provide even the most number-phobic readers with confidence in their own mathematical abilities.

Thinking In Numbers-Daniel Tammet 2013-07-30 The irresistibly engaging book that "enlarges one's wonder at Tammet's mind and his all-embracing vision of the world as grounded in numbers." --Oliver Sacks, MD THINKING IN NUMBERS is the book that Daniel Tammet, mathematical savant and bestselling author, was born to write. In Tammet's world, numbers are beautiful and mathematics illuminates our lives and minds. Using anecdotes, everyday examples, and ruminations on history, literature, and more, Tammet allows us to share his unique insights and delight in the way numbers, fractions, and equations underpin all our lives. Inspired variously by the complexity of snowflakes, Anne Boleyn's eleven fingers, and his many siblings, Tammet explores questions such as why time seems to speed up as we age, whether there is such a thing as an average person, and how we can make sense of those who love. His provocative and inspiring new book will change the way you think about math and fire your imagination to view the world with fresh eyes.

All Things Being Equal-John Mighton 2020-01-07 NATIONAL BESTSELLER From the award-winning founder of JUMP Math, All Things Being Equal is a proven guide to succeeding in math, and a passionate argument for why this success can and must be available to the majority instead of the privileged few. For two decades, John Mighton has developed strategies for fostering intellectual potential in all children through learning math. Math, Mighton says, provides us with mental tools of incredible power. When we learn math we learn to see patterns, to think logically and systematically, to draw analogies, to perceive risk, to understand cause and effect—among many other critical skills. Yet we tolerate and in fact expect a vast performance gap in math among students, and live in a world where many adults aren't equipped with these crucial tools. This learning gap is unnecessary, dangerous and tragic, he cautions, and it has led us to a problem of intellectual poverty which is apparent everywhere—in fake news, political turmoil, floundering economies, even in erroneous medical diagnoses. In All Things Being Equal, Mighton argues that math study is an ideal starting point to break down social inequality and empower individuals to build a smarter, kinder, more equitable world. Bringing together the latest cognitive research and incremental learning strategies, Mighton goes deep into the classroom and beyond to offer a hopeful—and urgent—vision for a numerate society.

This is the Year I Put My Financial Life in Order-John Schwartz 2018-04-03 A New York Times correspondent shares his financial successes and mishaps, offering an everman's guide to straightening out your money once and for all. Money management is one of our most practical survival skills—and also one we've convinced ourselves we're either born with or not. In reality, financial planning can be learned, like anything else. Part financial memoir and part research-based guide to attaining lifelong security, This Is the Year I Put My Financial Life in Order is the book that everyone who has never wanted to read a preachy financial guide has been waiting for. John Schwartz and his wife, Jeanne, are pre-retirement workers of an economic class well above the poverty line, but well below the one percent. Sharing his own alternately harrowing and hilarious stories—from his brush with financial ruin and bankruptcy in his thirties to his short-lived budgeted diet of cafeteria french fries and gravy—John will walk you through his own journey to financial literacy, which he admittedly started a bit late. He covers everything from investments to retirement and insurance to wills (at fifty-eight, he didn't have one!), medical directives and more. Whether you're a college grad wanting to start out on the right foot or you're approaching retirement age and still wondering what a 401(K) is, This Is the Year I Put My Financial Life in Order will help you become your own best financial adviser.

Train Your Mind for Peak Performance-Lyle Eugene Bourne 2013-11-01 Whether you're training to play the piano, speak a foreign language, shoot a target, or master the techniques of fine carpentry, the conditions of your training will affect how successfully you learn and perform.

Mental Math-Joseph White 2018-06-18 Mental math is a skill people practice on a daily basis, often subconsciously, which involves doing calculations in your head. In mental math, you don't have to write down elaborate details concerning the variables involved. Children are usually encouraged to learn mental math skills early in school, because being good at mental calculations can make a person successful in many other fields. Please note that even if being good at mental math does not necessarily signify high intelligence, people usually think it does, and that perception can help you obtain opportunities for advanced study or career development. Mental math proficiency is not just good for academic pursuits but also helps make life easier overall. This book dives deep into the mechanics of mental math and provides examples that will help the reader build mental math proficiency quickly.

APRENDENDO A APRENDER-BARBARA OAKLEY Aprendendo a Aprender é o livro que deu origem ao curso de mesmo nome oferecido pela plataforma Coursera, um dos cursos abertos online de maior sucesso de todos os tempos. Neste livro, a Professora Barbara Oakley mostra como você pode aprender e aperfeiçoar-se muito mais fácil e rapidamente aplicando técnicas comprovadas pela pesquisa e usadas por peritos nos campos da arte, música, literatura, ciência, esportes e muitas outras disciplinas. Você aprenderá como o cérebro usa dois modos diferentes de aprendizagem e como ele encapsula as informações e verá o que você deve fazer para tornar esse processo mais eficiente. Você também descobrirá como as ilusões de aprendizagem podem estar sabotando-o, e aprenderá as melhores técnicas de memória, para lidar com a procrastinação e para aprender assuntos difíceis do modo mais efetivo. Usando essas abordagens, não importa qual seja o seu nível de habilidade no assunto que você quer dominar, você pode mudar sua forma de pensar e mudar sua vida. Se você já é um perito, essa espíadela atrás das cortinas da mente lhe dará ideias para turbinar sua aprendizagem bem sucedida, incluindo dicas contrárias à intuição para fazer provas e sugestões para ajudá-lo a tirar o máximo do tempo que você dedica aos estudos. Se você está enfrentando dificuldades, você verá uma vasta coleção estruturada com as técnicas práticas de que você precisa para voltar ao caminho do sucesso. Se você alguma vez quis se tornar melhor em alguma coisa, este livro irá ajudá-lo a chegar lá e servirá como seu guia.

How to Become a Straight-A Student-Cal Newport 2006-12-26 Looking to jumpstart your GPA? Most college students believe that straight A's can be achieved only through cramming and painful all-nighters at the library. But Cal Newport knows that real straight-A students don't study harder—they study smarter. A breakthrough approach to acing academic assignments, from quizzes and exams to essays and papers, How to Become a Straight-A Student reveals for the first time the proven study secrets of real straight-A students across the country and weaves them into a simple, practical system that anyone can master. You will learn how to: • Streamline and maximize your study time • Conquer procrastination • Absorb the material quickly and effectively • Know which reading assignments are critical—and which are not • Target the paper topics that wow professors • Provide A+ answers on exams • Write stellar prose without the agony A strategic blueprint for success that promises more free time, more fun, and top-tier results, How to Become a Straight-A Student is the only study guide written by students for students—with the insider knowledge and real-world methods to help you master the college system and rise to the top of the class.

How Not to Be Wrong-Jordan Ellenberg 2015 *Using the mathematician's method of analyzing life and exposing the hard-won insights of the academic community to the layman, minus the jargon ... Ellenberg pulls from history as well as from the latest theoretical developments to provide those not trained in math with the

knowledge they need"--

A Mind at a Time-Mel Levine 2002-04-03 A professor of pediatrics reveals the many modes of learning and arms parents and teachers with the knowledge they need to help children prosper in a school environment. 75,000 first printing.

Shadows of the Mind-Roger Penrose 1996 Presenting a look at the human mind's capacity while criticizing artificial intelligence, the author makes suggestions about classical and quantum physics and the role of microtubules

The Number Sense-Stanislas Dehaene 2011-04-29 "Our understanding of how the human brain performs mathematical calculations is far from complete. In The Number Sense, Stanislas Dehaene offers readers an enlightening exploration of the mathematical mind. Using research showing that human infants have a rudimentary number sense, Dehaene suggests that this sense is as basic as our perception of color, and that it is wired into the brain. But how then did we leap from this basic number ability to trigonometry, calculus, and beyond? Dehaene shows that it was the invention of symbolic systems of numerals that started us on the climb to higher mathematics. Tracing the history of numbers, we learn that in early times, people indicated numbers by pointing to part of their bodies, and how Roman numerals were replaced by modern numbers. On the way, we also discover many fascinating facts: for example, because Chinese names for numbers are short, Chinese people can remember up to nine or ten digits at a time, while English-speaking people can only remember seven. A fascinating look at the crossroads where numbers and neurons intersect, The Number Sense offers an intriguing tour of how the structure of the brain shapes our mathematical abilities, and how math can open up a window on the human mind"—Provided by publisher.

A Mind for Sales-Mark Hunter, CSP 2020-03-31 For salespeople tired of feeling stressed out, burned out, and bummed out that their customers don't want to hear from them. A Mind for Sales is the guide they need to develop a success mindset and the habits required to breakthrough to a whole new level of sales performance. Everybody knows the world of sales can be tough, and it's easy to get discouraged when the rejections start piling up, and your customers stop picking up the phone. The wrong thought patterns can start to set in, and pretty soon you aren't making your quota and are looking through job listings on your lunch break, waiting for the axe to fall. Mark Hunter's own start in sales was inauspicious, to say the least. He was fired from his first two stints before he began to learn the lessons that he covers in A Mind for Sales. He discovered that sales can be incredibly rewarding, such as when your customers call you for advice, thanking you for improving their business, and letting you know they just referred you to colleagues. The difference is simply developing mindset and momentum habits. The good news is that you can learn how to grow a mind for sales like Hunter's: "Today, sales is my life. It has gone way past being a job. I do not even see sales as a profession anymore; it is a lifestyle, and one I am proud to be living. I cannot imagine doing anything else." Let A Mind for Sales inspire and prepare you to form the new thoughts and habits you need to succeed and to realize the incredible rewards that a successful life in sales makes possible. Feel reenergized by renewed purpose and success in your sales role by following the success cycle approach outlined in the book. Receive practical strategies on how to change your mindset and succeed in sales. Learn the daily habits needed to maximize productivity and make hitting the ground running strategy #1. Gain real-world insights from Hunter's vast experience as a highly successful sales professional and sales coach.

How Numbers Work-New Scientist 2018-05-01 Think of a number between one and ten No, hang on, let's make this interesting. Between zero and infinity. Even if you stick to the whole numbers, there are a lot to choose from - an infinite number in fact. Throw in decimal fractions and infinity suddenly gets an awful lot bigger (is that even possible?) And then there are the negative numbers, the imaginary numbers, the irrational numbers like p which never end. It literally never ends. The world of numbers is indeed strange and beautiful. Among its inhabitants are some really notable characters - pi, e, the square root of minus two and the famous golden ratio to name just a few. Prime numbers occupy a special status. Zero is very odd indeed. And even some apparently common-or-garden integers such as 37 have special properties. Adventures In Mathematics takes a tour of this mind-blowing but beautiful world of numbers and the mathematical rules that connect them. Find out mathematicians' favourite numbers, and the ones they are afraid of (spoiler: it isn't 13). Discover the incredible connection between numbers and the rules of nature. And learn some amazing mathematical tricks that will keep you amused for hours.

How To Win At College-Cal Newport 2005 Draws on firsthand interviews with outstanding students at universities across the country to examine the secrets of a successful college career, introducing seventy-five simple rules designed to assist students ace their classes, assume leadership positions, build a superb résumé, define their life goals, and have fun at the same time. Original. 17,500 first printing.

The Mind of a Mnemonist-Aleksandr Romanovich Lurija 1987 The Mind of a Mnemonist is a rare phenomenon—a scientific study that transcends its data and, in the manner of the best fictional literature, fashions a portrait of an unforgettable human being.

If...-David J. Smith 2016-02-01 Imagine if you could condense all 3.5 billion years of life on Earth into just one hour. If you did, the dinosaurs wouldn't show up until 56 minutes into the hour, and they'd be gone three minutes later. Modern humans (the ones we are related to) would amble into view at the very end of the hour, with just 0.2 seconds to spare.

How People Learn-National Research Council 2000-08-11 First released in the Spring of 1999, How People Learn has been expanded to show how the theories and insights from the original book can translate into actions and practice, now making a real connection between classroom activities and learning behavior. This edition includes far-reaching suggestions for research that could increase the impact that classroom teaching has on actual learning. Like the original edition, this book offers exciting new research about the mind and the brain that provides answers to a number of compelling questions. When do infants begin to learn? How do experts learn and how is this different from non-experts? What can teachers and schools do-with curricula, classroom settings, and teaching methods—to help children learn most effectively? New evidence from many branches of science has significantly added to our understanding of what it means to know, from the neural processes that occur during learning to the influence of culture on what people see and absorb. How People Learn examines these findings and their implications for what we teach, how we teach it, and how we assess what our children learn. The book uses exemplary teaching to illustrate how approaches based on what we now know result in in-depth learning. This new knowledge calls into question concepts and practices firmly entrenched in our current education system. Topics include: How learning actually changes the physical structure of the brain. How existing knowledge affects what people notice and how they learn. What the thought processes of experts tell us about how to teach. The amazing learning potential of infants. The relationship of classroom learning and everyday settings of community and workplace. Learning needs and opportunities for teachers. A realistic look at the role of technology in education.

The Joy of x-Steven Strogatz 2012-10-02 "Delightful . . . easily digestible chapters include plenty of helpful examples and illustrations. You'll never forget the Pythagorean theorem again!"—Scientific American Many people take math in high school and promptly forget much of it. But math plays a part in all of our lives all of the time, whether we know it or not. In The Joy of x, Steven Strogatz expands on his hit New York Times series to explain the big ideas of math gently and clearly, with wit, insight, and brilliant illustrations. Whether he is illuminating how often you should flip your mattress to get the maximum lifespan from it, explaining just how Google searches the internet, or determining how many people you should date before settling down, Strogatz shows how math connects to every aspect of life. Discussing pop culture, medicine, law, philosophy, art, and business, Strogatz is the math teacher you wish you'd had. Whether you ace integral calculus or aren't sure what an integer is, you'll find profound wisdom and persistent delight in The Joy of x.

A Midsummer-night's Dream-William Shakespeare 1905

The Brain-New Scientist 2018-10-23 Join New Scientist on a mind-expanding rollercoaster ride through intelligence, creativity, your unconscious and beyond. Congratulations! You're the proud owner of the most complex information processing device in the known universe. The human brain comes equipped with all sorts of useful design features, but also many bugs and weaknesses. Problem is you don't get an owner's manual. You have to just plug and play. As a result, most of us never properly understand how our brains work and what they're truly capable of. We fail get the best out of them, ignore some of their most useful features and struggle to overcome their design faults. Until now, that's been true. Featuring witty essays, enlightening infographics and fascinating "try this at home" experiments, New Scientist take you on a journey through intelligence, memory, creativity, the unconscious and beyond. From the strange ways to distort what we think of as "reality" to the brain hacks that can improve memory, The Brain: A User's Guide will help you understand your brain and show you how to use it to its full potential.

A Mind Spread Out on the Ground-Alicia Elliott 2020-08-04 A bold and profound meditation on trauma, legacy, oppression and racism in North America from award-winning Haudenosaunee writer Alicia Elliott. In an urgent and visceral work that asks essential questions about the treatment of Native people in North America while drawing on intimate details of her own life and experience with intergenerational trauma, Alicia Elliott offers indispensable insight into the ongoing legacy of colonialism. She engages with such wide-ranging topics as race, parenthood, love, mental illness, poverty, sexual assault, gentrification, writing and representation, and in the process makes connections both large and small between the past and present, the personal and political—from overcoming a years-long battle with head lice to the way Native writers are treated within the Canadian literary industry; her unplanned teenage pregnancy to the history of dark matter and how it relates to racism in the court system; her childhood diet of Kraft Dinner to how systemic oppression is directly linked to health problems in Native communities. With deep consideration and searing prose, Elliott provides a candid look at our past, an illuminating portrait of our present and a powerful tool for a better future.

The Hidden Brain-Shankar Vedantam 2010-01-19 The hidden brain is the voice in our ear when we make the most important decisions in our lives—but we're never aware of it. The hidden brain decides whom we fall in love with and whom we hate. It tells us to vote for the white candidate and convict the dark-skinned defendant, to hire the thin woman but pay her less than the man doing the same job. It can direct us to safety when disaster strikes and move us to extraordinary acts of altruism. But it can also be manipulated to turn an ordinary person into a suicide terrorist or a group of bystanders into a mob. In a series of compulsively readable narratives, Shankar Vedantam journeys through the latest discoveries in neuroscience, psychology, and behavioral science to uncover the darkest corner of our minds and its decisive impact on the choices we make as individuals and as a society. Filled with fascinating characters, dramatic storytelling, and cutting-edge science, this is an engrossing exploration of the secrets our brains keep from us—and how they are revealed.

The Universe Speaks in Numbers-Graham Farmelo 2019-05-28 How math helps us solve the universe's deepest mysteries One of the great insights of science is that the universe has an underlying order. The supreme goal of physicists is to understand this order through laws that describe the behavior of the most basic particles and the forces between them. For centuries, we have searched for these laws by studying the results of experiments. Since the 1970s, however, experiments at the world's most powerful atom-smashers have offered few new clues. So some of the world's leading physicists have looked to a different source of insight: modern mathematics. These physicists are sometimes accused of doing "fairy-tale physics", unrelated to the real world. But in The Universe Speaks in Numbers, award-winning science writer and biographer Farmelo argues that the physics they are doing is based squarely on the well-established principles of quantum theory and relativity, and part of a tradition dating back to Isaac Newton. With unprecedented access to some of the world's greatest scientific minds, Farmelo offers a vivid, behind-the-scenes account of the blossoming relationship between mathematics and physics and the research that could revolutionize our understanding of reality. A masterful account of the some of the most groundbreaking ideas in physics in the past four decades. The Universe Speaks in Numbers is essential reading for anyone interested in the quest to discover the fundamental laws of nature.

The Way I Heard It-Mike Rowe 2019-10-15 NEW YORK TIMES BESTSELLER Executive producer and host Mike Rowe presents a delightfully entertaining, seriously fascinating collection of his favorite episodes from America's #1 short-form podcast, The Way I Heard It, along with a host of personal memories, ruminations, and insights. It's a captivating must-read. The Way I Heard It presents thirty-five mysteries "for the curious mind with a short attention span." Every one is a trueish tale about someone you know, filled with facts that you don't. Movie stars, presidents, bloody do-gooders, and villains—they're all here, waiting to shake your hand, hoping you'll remember them. Delivered with Mike's signature blend of charm, wit, and ingenuity, their stories are part of a larger mosaic—a memoir full of surprising revelations, sharp observations, and intimate, behind-the-scenes moments drawn from Mike's own remarkable life and career.

Mathematical Mindsets-Jo Boaler 2015-10-12 Banish math anxiety and give students of all ages a clear roadmap to success Mathematical Mindsets provides practical strategies and activities to help teachers and parents show all children, even those who are convinced that they are bad at math, that they can enjoy and succeed in math. Jo Boaler—Stanford researcher, professor of math education, and expert on math learning—has studied why students don't like math and often fail in math classes. She's followed thousands of students through middle and high schools to study how they learn and to find the most effective ways to unleash the math potential in all students. There is a clear gap between what research has shown to work in teaching math and what happens in schools and at home. This book bridges that gap by turning research findings into practical activities and advice. Boaler translates Carol Dweck's concept of "mindset" into math teaching and parenting strategies, showing how students can go from self-doubt to strong self-confidence, which is so important to math learning. Boaler reveals the steps that must be taken by schools and parents to improve math education for all. Mathematical Mindsets: Explains how the brain processes mathematics learning Reveals how to turn mistakes and struggles into valuable learning experiences Provides examples of rich mathematical activities to replace rote learning Explains ways to give students a positive math mindset Gives examples of how assessment and grading policies need to change to support real understanding Scores of students hate and fear math, so they end up leaving school without an understanding of basic mathematical concepts. Their evasion and departure hinders math-related pathways and STEM career opportunities. Research has shown very clear methods to change this phenomena, but the information has been confined to research journals—until now. Mathematical Mindsets provides a proven, practical roadmap to mathematics success for any student at any age.

Book of Numbers-Joshua Cohen 2015-06-09 NATIONAL BESTSELLER • NAMED ONE OF THE TEN BEST BOOKS OF THE YEAR BY VULTURE AND ONE OF THE BEST BOOKS OF THE YEAR BY NPR AND THE WALL STREET JOURNAL • A monumental, uproarious, and exuberant novel about the search—for love, truth, and the meaning of Life With The Internet. "More impressive than all but a few novels published so far this decade . . . a wheeling meditation on the wired life, on privacy, on what being human in the age of binary code might mean. . . [Joshua] Cohen, all of thirty-four, emerges as a major American writer."—The New York Times The enigmatic billionaire founder of Tetratation, the world's most powerful tech company, hires a failed novelist, Josh Cohen, to ghostwrite his memoirs. The mogul, known as Principal, brings Josh behind the digital veil, tracing the rise of Tetratation, which started in the earliest days of the Internet by revolutionizing the search engine before venturing into smartphones, computers, and the surveillance of American citizens. Principal takes Josh on a mind-bending world tour from Palo Alto to Dubai and beyond, initiating him into the secret pretext of the autobiography project and the life-or-death stakes that surround its publication. Insider tech exposé, leaked memoir-in-progress, international thriller, family drama, sex comedy, and biblical allegory, Book of Numbers renders the full range of modern experience both online and off. Embodying the Internet in its language, it finds the humanity underlying the virtual. Featuring one of the most unforgettable characters in contemporary fiction, Book of Numbers is an epic of the digital age, a triumph of a new generation of writers, and one of those rare books that renew the idea of what a novel can do. Please note that Book of Numbers uses a special pagination system inspired by binary notation: the part number precedes the page number, and is separated from it by a decimal point. Praise for Book of Numbers "The Great American Internet Novel is here. . . . Book of Numbers is a fascinating look at the dark heart of the Web. . . . A page-turner about life under the veil of digital surveillance. . . . one of the best novels ever written about the Internet."—Rolling Stone "A startlingly talented novelist. . . . [His] deeply rewarding novel is about an online religion gone wrong—and its importance lies in the fact that nearly all of us in the modernized world are members of that faith, whether we know it or not."—The Wall Street Journal "Remarkable . . . dazzling. . . . Cohen's literary gifts. . . suggest that something is possible, that something still might be done to safeguard whatever it is that makes us human."—Francine Prose, The New York Review of Books "A hugely ambitious novel set in the high-tech world of now . . . a verbal high-wire act, daring in its tones and textures: clever, poetic, fast-moving, deeply playful, filled with jokes, savvy about machines, wise about people, dazzling and engrossing."—Colm Tóibín, The Guardian "Joshua Cohen is the Great American Novelist. . . . Like Pynchon and Wallace, Cohen can write with tireless virtuosity about absolutely everything."—Adam Kirsch, Tablet "A digital-age Ulysses."—The New York Times Book Review "The next candidate for the Great American Novel. . . . David Foster Wallace-level audacious."—Details "A brilliant book."—The Boston Globe From the Hardcover edition.

Limitless Mind-Jo Boaler 2019-09-03 "Boaler is one of those rare and remarkable educators who not only know the secret of great teaching but also know how to give that gift to others." — CAROL DWECK, author of Mindset "Jo Boaler is one of the most creative and innovative educators today. Limitless Mind marries cutting-edge brain science with her experience in the classroom, not only proving that each of us has limitless potential but offering strategies for how we can achieve it." — LAURENE POWELL JOBS "A courageous freethinker with fresh ideas on learning." — BOOKLIST In this revolutionary book, a professor of education at Stanford University and acclaimed math educator who has spent decades studying the impact of beliefs and bias on education, reveals the six keys to unlocking learning potential, based on the latest scientific findings. From the moment we enter school as children, we are made to feel as if our brains are fixed entities, capable of learning certain things and not others, influenced exclusively by genetics. This notion follows us into adulthood, where we tend to simply accept these established beliefs about our skillsets (i.e. that we don't have "a math brain" or that we aren't "the creative type"). These damaging—and as new science has revealed, false—assumptions have influenced all of us at some time, affecting our confidence and willingness to try new things and limiting our choices, and, ultimately, our futures. Stanford University professor, bestselling author, and acclaimed educator Jo Boaler has spent decades studying the impact of beliefs and bias on education. In Limitless Mind, she explores these myths and reveals the six keys to unlocking our boundless learning potential. Her research proves that those who achieve at the highest levels do not do so because of a genetic inclination toward any one skill but because of the keys that she reveals in the book. Our brains are not "fixed," but entirely capable of change, growth, adaptability, and rewiring. Want to be fluent in mathematics? Learn a foreign language? Play the guitar? Write a book? The truth is not only that anyone at any age can learn anything, but the act of learning itself fundamentally changes who we are, and as Boaler argues so elegantly in the pages of this book, what we go on to achieve.

A Mind For Numbers How To Excel At Math And Science Even If You Flunked Algebra