# NO BULLSHIT GUIDE TO MATH AND PHYSICS

## A textbook that makes learning math and physics accessible for everyone

Many adults go to great lengths to avoid mathematics. They believe math and physics knowledge is required only for those in a technical field. That learning math is difficult. Those who studied some math at university will often agree, recalling traumatic experiences of these subjects being inflicted upon them as prerequisite courses.

A big part of the difficulty of learning math is due to the impersonal and long-winded style of most math textbooks. It's difficult for adults to find a book at the *right level*: introductory math textbooks often treat readers like dummies, while advanced math textbooks assume—erroneously—that readers have a solid grasp of all the math basics.

## A new type of textbook

The No bullshit guide to math and physics is a compact **textbook on calculus and mechanics** that also covers all prerequisite concepts from high school math. Through **concise**, **jargon-free lessons on topics in math and physics** the book makes these complicated subjects accessible to all readers.

#### Table of Contents:

Chapter 1 Math fundamentals: numbers, equations, functions, etc. (94 pp)

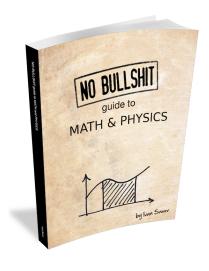
Chapter 2 Intro to physics: physics models, integrals, and kinematics (19 pp)

Chapter 3 Vectors: vector operations, coordinates, and bases (21 pp)

Chapter 4 Mechanics: more kinematics, forces, momentum, and energy (74 pp)

Chapter 5 Calculus: limits, derivatives, integrals, sequences, and series (117 pp)

Each subject is covered at the depth required for a university-level course. The book also contains **extensive problem sets** to help students become proficient with the material.



size:  $5.5'' \times 8.5'' \times 466 \text{ pp}$ 

list price: \$39

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author: Ivan Savov, Ph.D.

edition: Fifth

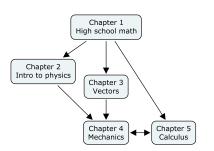
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### Structured learning

The book puts an emphasis on illustrating the **connections between concepts**; understanding the connections between concepts is much more important than memorizing facts. It's not about how many equations you know, but about knowing how to derive one equation from another.

The book begins with a detailed review of topics of high school math establishing a solid foundation of understanding about numbers, equations, and functions. From this solid foundation it becomes possible to learn more advanced topics by generalization: vectors are arrays of numbers, physics equations are the same as math equations, and calculus is the study of functions.



Chapter dependency structure. For details see bit.ly/calcmech

#### The readers

University students love the book because of its conciseness, conversational tone, and its focus on understanding. The book quickly becomes a companion, not just another burdensome, inaccessible brick. The numerous end-of-chapter problems with solutions help to solidify students' understanding of the material and build their exam-acing abilities.

Apart from students, the book has found a following among the adult technical audience (computer programmers) and, not least, with parents. Many readers buy the book to (re)learn what they were supposed to have learned as undergrads or to help their kids with math homework.

Below are some comments about the book:

"Learning calculus in university? You need this book. It's that simple. It is both concise and helpful. For me it was a lifesaver."

—Graeme Nathan, student

"I like the conversational tone of your writing. It's almost like I'm learning math from a friend." —Kevin Del Castillo, developer

"It's literally two heavy textbooks packed into a very light and small book. My only problem has been when I am working through it in the library and start laughing out loud—you have great examples."

—Miriam Aczel, student

These reader testimonials clearly echo the market need for a modern math textbook written in a conversational tone.

#### The author

The author has been teaching math and physics for more than 15 years as a private tutor. During this time he learned to explain concepts concisely, precisely, and in an intuitive manner. The author is a graduate of McGill University with degrees in electrical engineering (B.Eng.), physics (M.Sc.), and computer science (Ph.D.). His scientific research interest include educational psychology (human learning), machine learning, and quantum information theory.

The book's initial success encouraged the author to start a publishing company.



Ivan Savov, the author.

#### The publisher

MINIREFERENCE Co., the publisher of the No bullshit guide series of textbooks, is a new textbook company that has the students' interest in mind. Thanks to the use of open source software, LATEX typesetting, and print-on-demand technology, it is possible to produce high quality textbooks, at a fraction of the cost of traditional textbooks. The company mission is to take over the textbook industry by **making textbooks that don't suck**.

## Pricing information

The No bullshit guide to math and physics is available to order through Ingram. The book format is 5.5" by 8.5" (perfect-bound softcover). The total page count is 466 pages, most of which are dedicated to lessons, while 70+ pages contain problems and solutions. The book's **list price is US\$39**. We offer standard trade discount to bookstores and a full return policy. For more information lookup the book in Ingram's catalog; the ISBN is 978-0-9920010-0-1.

For other inquiries and special orders, contact the author directly at ivan@minireference.com.