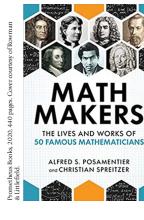


New and Noteworthy Titles on our Bookshelf November 2021

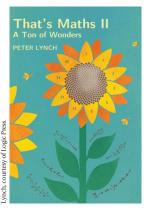


Math Makers: The Lives and Works of 50 Famous Mathematicians by Alfred S. Posamentier and Christian Spreitzer

As its name suggests, *Math Makers* provides profiles of fifty influential mathematicians (in fact, there is a slight bonus since the Bernoullis are bundled together in the same chapter). The profiles range from around five to fifteen pages, varying in the relative scar-

city of sources and the number of illustrations provided. The pace is brisk and the profiles are well-written and engaging. There are occasional opening "teasers" that make the reader eager to understand the connection. For example, the profile of Leibniz begins with a few paragraphs about the development of the computer. We then learn that Leibniz appears to have been among the first to develop binary arithmetic and to think about how it could be used to construct computing machines. An instructor wishing for a few quick remarks about a particular mathematician might find this volume valuable for adding historical flavor to a class.

Math Makers is aimed at a general audience and requires only a modest background in high-school geometry and algebra. Because of these low prerequisites, there is a large emphasis on classical geometry, particularly in the earlier chapters, and more technical subjects are handled informally. For example, the treatments of Galois, Hardy, and Mandelbrot are less precise than those of Pythagoras, Euclid, and Archimedes. With the exception of Maryam Mirzakhani, all of the mathematicians covered were born prior to 1925. This necessarily limits the gender balance, although the authors do include profiles of Agnesi, Germain, Lovelace, Kovalevskaya, Noether, and Mirzakhani. However, the lack of East Asian and Middle Eastern mathematicians is somewhat surprising for a book with a long historical perspective. Aside from Brahmagupta, Ramanujan, and Mirzakhani, the remaining mathematicians are all of European descent (broadly construed, for we do not fully know the ancestry of some of the Greek-speaking mathematicians of the ancient world).



That's Maths II: A Ton of Wonders by Peter Lynch

That's Maths II is a collection of sixty-four short essays, each around three to five pages long, that cover a wide array of mathematical topics from random harmonic series and variations on the Cantor set, to the singular value decomposition and surreal numbers. Some of the essays focus on humanistic aspects of mathematics, such as the work of

mathematically inspired satirist Tom Lehrer, mentions of circle squaring in Joyce's cryptic *Ulysses*, and a discussion of the classical quadrivium. Most of the essays are illustrated with black-and-white photographs, diagrams, or tables. A previous volume by the same author entitled *That's Maths: The Mathematical Magic in Everyday Life* appeared in 2016.

About half of the articles in *That's Maths II* appeared in the author's column in *The Irish Times*, and some of the others came from his long-running blog thatsmaths.com. Judging from their online counterparts in *The Irish Times*, the mathematical level of these short essays has been significantly increased for the book. Although some entries can be understood by the layperson, others rely upon a fair number of equations, infinite series, integrals, and so forth. A short bibliography accompanies each article, so the interested reader might use the book as a convenient jumping-off point for further mathematical explorations. Consequently, *That's Maths II* is ideal for a precocious calculus student or an undergraduate mathematics major seeking a book full of interesting mathematical curiosities.

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