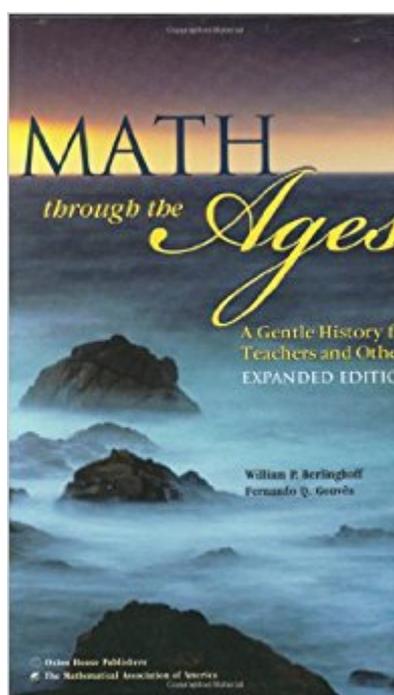The book was found

# Math Through The Ages: A Gentle History For Teachers And Others, Expanded Edition (Mathematical Association Of America Textbooks)

## Synopsis

Where did maths come from? Who thought up all those algebra symbols, and why? What's the story behind ... negative numbers? ... the metric system? ... quadratic equations? ... sine and cosine? The 25 independent sketches in Math through the Ages answer these questions and many others in an informal, easygoing style that's accessible to teachers, students, and anyone who is curious about the history of mathematical ideas. Each sketch contains Questions and Projects to help you learn more about its topic and to see how its main ideas fit into the bigger picture of history. The 25 short stories are preceded by a 56-page bird's-eye overview of the entire panorama of mathematical history, a whirlwind tour of the most important people, events, and trends that shaped the mathematics we know today. Reading suggestions after each sketch provide starting points for readers who want to pursue a topic further.

## Book Information

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## Customer Reviews

This is a superficial history pandering to future teachers. The insights that history can bring to the classroom are desperately needed to improve mathematics education, but this book is too vapid and uncritical to serve the cause well. Consider for example the following piece of pseudo-history.We are told that "it was a truly revolutionary step forward at the time" when Harriot "proposed a simple but powerful technique for solving algebraic equations: Move all the terms of the equation to one side of the equal sign" (p. 81). An equation in such a form can of course be solved by factoring, and, according to the authors, "a lot was known about factoring polynomials, even in

Harriot's time, so this principle was a major advance in the theory of equations" (p. 82).One can only hope that the reader will recognise the tell-tale signs of hot-air pop-history in this baloney. How could such an utterly trivial idea have been "a truly revolutionary step"? And how come previous mathematicians knew "a lot" about factoring polynomials yet somehow failed to see how to apply it to equation solving? Did they sit around and factor polynomials all day just for fun? It doesn't make any sense.A very different picture emerges if one studies actual history instead of this unsubstantiated sensationalism. In Harriot's book, the "truly revolutionary" idea of moving the terms to one side is never even mentioned but rather taken for granted as the triviality that it is. Instead, the book is a long tabulation of expansions of expressions of a variety of forms such as (x+a)(x+b)(x+c), (x-a)(x+b)^2, etc. The resulting catalogue of "canonical forms", as he calls them, can then be read backwards to find the factorisation and hence the roots of a given equation.

If you like math and want to read a short history of it, you'll like this book. It is written at a "popular mathematics" level, so it is accessible to nearly anyone who would take an interest in it. The writing is vibrant and to the point. The content is exemplary for a first look at the subject. The structure of the book is practical, intelligent, and effective. It begins with a 59 page summary of the history of mathematics, and this summary hits the high points. Then there are 25 chapter sketches over the next 179 pages, the chapter lengths being either 6 or 8 pages (meaning numbered pages, where a book leaf has 2 pages). These sketches discuss a single topic from the history, going into detail not given in the summary. The sketches and the summary each conclude with 2 pages of questions and projects that are as interesting and stimulating to read as the rest of the book.Throughout the book the authors refer the reader to books and articles listed in their bibliography, which has 141 entries. After the 25 sketches there is a 7 page section called "what to read next" which directs the reader to specific math books and also to web sites they believe will be especially helpful. They include in this discussion 15 historical books they think you ought to read. This section could be thought of as a partial annotation of the bibliography.Here are the topics covered in the sketches:1. writing whole numbers2. where the symbols of arithmetic came from3. the story of zero4. writing fractions5. negative numbers6. metric measurement7. the story of pi8. writing algebra with symbols9. solving first degree equations10. quadratic equations11. solving cubic equations12. the pythagorean theorem13.

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