

**ZMATH 2013f.00110**

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**Mathematics for secondary school teachers.**

MAA Textbooks. Washington, DC: Mathematical Association of America (MAA) (ISBN 978-0-88385-773-1/hbk). xxiv, 417 p. (2011).

Publisher's description: This book, which is intended for prospective educators in middle and high school, balances discovery learning with direct instruction. Written to develop a deeper understanding of the mathematics that will be taught, the book presents topics of central importance in the secondary school mathematics curriculum, notably, functions, polynomials, trigonometry, exponential and logarithmic functions, numbers and operations, and measurements. Beyond the goals of conceptual understanding and computational fluency, readers of the book can devise their own mathematical explanations and arguments; create examples and visual representations; remediate typical student errors and misconceptions; and analyze students' work. A broad collection of exercises of varying degrees of difficulty is integrated with the text.

Instructors are able to emphasize the following: indent=6mm

- basics: the exploration of key precollege topics from intuitive and rigorous points of view;
- connections: the exploration of relationships among topics, using tools from college-level mathematics;
- extensions: the exploration of college-level mathematical topics that have a compelling relationship to pre-college mathematics. By taking into account the diverse mathematical backgrounds of preservice teachers and the varied goals of teacher preparation programs, the authors have written a textbook whose subject matter addresses a wide range of learning objectives appropriate for future teachers. The book can also be used in licensing programs; as a supplement to mathematics methods courses; as a text for graduate courses for in-service teachers; and as a resource for faculty development.

*Classification:* B50 I29 G69 F19 H39