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Review of Principles to Actions: Ensuring Mathematical Success for All

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PUBLICATIONS

From NCTM

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Principles to Actions: Ensuring Mathematical Success for All,

2014. 139 pp., \$28.95 paper. ISBN 978-0-87353-774-2. Stock no. 14861. National Council of Teachers of Mathematics; www.nctm.org.



Principles to Actions: Ensuring Mathematical Success for All builds on NCTM's past efforts to provide a high-quality mathematics learning experience for all

students. The mathematical teaching practices summarized on page 10 are those that I strive to instill in the future teachers whom I work with daily, but these practices are often different from the ones those students report experiencing in their K–12 education. If for no other reason than this disconnect, I highly recommend this book for all current and future K–12 mathematics teachers, administrators, and school board members. Throughout the book, summary tables, illustrations, and discussion of obstacles to be overcome offer practical insights into how to continue improving mathematics education.

Prices of software, books, and materials are subject to change. Consult the suppliers for the current prices. The comments reflect the reviewers' opinions and do not imply endorsement by the National Council of Teachers of Mathematics.

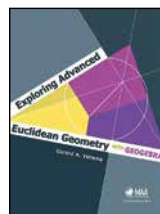
The second half focuses on the essential elements that need to be in place for the Mathematics Teaching Practices discussed to be effective. These elements include Access and Equity, Curriculum, Tools and Technology, Assessment, and Professionalism. Although the book has a few gaps (e.g., Susan Chapin's research on the power of mathematical discourse could have been added to that of Jo Boaler and Carol Dweck [see p. 64]), I especially appreciated the discussion on Access and Equity. If we “ensure that all students routinely have opportunities to experience high-quality mathematics instruction, learn challenging mathematics content, and receive the support necessary to be successful” (p. 60), I believe that we will see achievement gaps narrow and also achievement ceilings often imposed on adhering to singular curricular approach eliminated.

—Eric L. Mann
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FROM OTHER PUBLISHERS

Exploring Advanced Euclidean

Geometry with GeoGebra, Gerard A. Venema, 2013. 129 pp., \$50.00 cloth. ISBN 978-0-88385-784-7. Mathematical Association of America; www.maa.org.



This book, part of the Classroom Resource Materials published by the Mathematical Association of America, is “intended to provide supplementary classroom material for students.” Venema includes in this book two chapters that can serve as a tutorial for GeoGebra. GeoGebra is an interactive mathematics

program that is offered free to anyone who would like to use it (see www.geogebra.org for details). For those who use other computer software programs, the exercises in this book can be completed using those programs as well.

Exploring Advanced Euclidean Geometry does just that. After a couple of chapters that include many topics found in a typical high school geometry course (for example, parallel and perpendicular lines, the Pythagorean theorem, and points of concurrency), it delves into topics that go much further and deeper. These include Ceva's theorem, the theorem of Menelaus, and the Poincaré disk. Included are plenty of exercises for students and teachers to complete that will help them explore the various topics in depth. Hints are given for the completion of many of the exercises, but answers are not provided.

This book has enough material to serve as a wonderful resource for mathematics clubs, for students who want to explore geometry more deeply, or for anyone interested in learning about geometry concepts that would be considered outside the realm of a standard geometry course.

—Paul Kelley
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