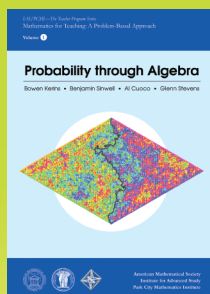# New Series from the American Mathematical Society
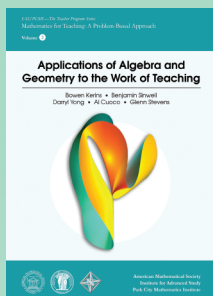
Probability through Algebra

Bowen Kerins, *Education Development Center Inc., Waltham, MA*, **Benjamin Sinwell,** *Pendleton High School, Anderson, SC*, **Al Cuoco,** *Education Development Center Inc., Waltham, MA*, and **Glenn Stevens,** *Cambridge, MA*

This book introduces readers to the algebraic properties of expected value and variance through a collection of problem sets designed to develop interconnected mathematical themes.

IAS/PCMI–The Teacher Program Series, Volume 1; 2015; approximately 175 pages; Softcover; ISBN: 978-1-4704-1925-7; List US$29; AMS members US$23.20; Order code SSTP/1

IAS/PCMI-The Teacher Program Series

This series presents materials from the IAS/PCMI Secondary School Teachers Program, an annual professional development program for teachers specializing in mathematics teaching for grades 3-12. Books in the series are designed to facilitate the SSTP program's goal of improving teacher knowledge via a problem-based approach to learning. Each volume includes a chapter on math concepts, a problem set, and facilitator notes, including solutions and practical tips for running a teacher training session. The series is invaluable for mathematics teacher training programs and for the continuing education of teachers already in practice.

Applications of Algebra and Geometry to the Work of Teaching
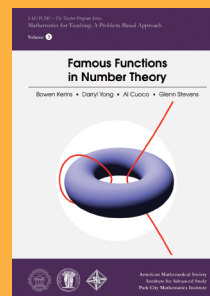
Bowen Kerins, *Education Development Center Inc., Waltham, MA*, **Benjamin Sinwell,** *Pendleton High School, Anderson, SC*, **Darryl Yong,** *Harvey Mudd College, Claremont, CA*, **Al Cuoco,** *Education Development Center Inc., Waltham, MA*, and **Glenn Stevens,** *Cambridge, MA*

This book uses a collection of problem sets to develop the use of complex numbers to investigate some questions that are at the intersection of algebra and geometry.

IAS/PCMI–The Teacher Program Series, Volume 2; 2015; approximately 205 pages; Softcover; ISBN: 978-1-4704-1924-0; List US$29; AMS members US$23.20; Order code SSTP/2

Famous Functions in Number Theory

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This book introduces readers to the use of formal algebra in number theory. Through numerical experiments, participants learn how to use polynomial algebra as a bookkeeping mechanism.

IAS/PCMI–The Teacher Program Series, Volume 3; 2015; approximately 216 pages; Softcover; ISBN: 978-1-4704-2195-3; List US$29; AMS members US$23.20; Order code SSTP/3

Titles in this series are co-published with the Institute for Advanced Study/Park City Mathematics Institute. Members of the Mathematical Association of America (MAA) and the National Council of Teachers of Mathematics (NCTM) receive a 20% discount from list price.

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