

Didactics of Mathematics as a Scientific Discipline

Edited by

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This book describes the state of the art in a new branch of science. The basic idea was to start from a general perspective on didactics of mathematics, to identify certain subdisciplines, and to suggest an overall structure or "topology" of the field of research of didactics of mathematics. The volume provides a sample of 30 original contributions from 10 different countries.

The reader will find the following chapters: (1) Preparing Mathematics for Students; (2) Teacher Education and Research on Teaching; (3) Interaction in the Classroom; (4) Technology and Mathematics Education; (5) Psychology of Mathematical Thinking; (6) Differential Didactics; (7) History and Epistemology of Mathematics and Mathematics Education; and (8) Cultural Framing of Teaching and Learning Mathematics.

The book will be of interest to all researchers in the field of didactics of mathematics. However, mathematics educators who are interested in the theory of their practice and teacher trainers will also appreciate the survey and the diverse stimulations and reflections given here. Prospective and practicing teachers of mathematics will find a variety of interesting spotlights on their practice, focusing on different ages and ability ranges in their students. In addition to persons directly engaged in mathematics education, the book as a whole and/or individual papers in it should be of interest to researchers from neighboring disciplines, such as mathematicians, general educators, educational psychologists, and cognitive scientists.

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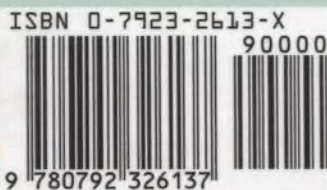


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