

Preface

The initiative for this book came from the PISA 2012 Mathematics Expert Group, which had worked together with a team from the Australian Council for Educational Research (ACER) for nearly 4 years in the preparation of the OECD's 2012 PISA survey. The mathematics assessment for the 2012 survey underwent substantial changes, building on and further developing the structures and conceptualisation of the 2003 survey (when Mathematics had last been the major domain) and responding to the wide-ranging international feedback that had arisen in those 9 years. The Framework has grown steadily since its inception for the 2000 survey, and its impact has expanded dramatically over this time. The item design has also been substantially refined. The expert group came to realise that the work that goes into an international survey such as PISA should be better known: hence this book. We hope it is a contribution both to thinking about the most fundamental goals and activities of mathematics education and toward better understanding the results of the PISA surveys.

It has been a pleasure to work with a team of such talented, engaged, and well-informed authors in the preparation of this book. Many chapter authors were also members of the Mathematics Expert Group for the PISA 2012 survey and the mathematics teams of international contractors for PISA 2012 led by ACER. We thank them for contributions to the book as well as for their contribution to the Mathematics Framework and items for the 2012 survey. Other authors have played important roles in using PISA to improve mathematics education in their own countries. The editors have also enjoyed bringing their own two different perspectives together as they worked on this book: Ross's experience as the leader of the ACER team responsible for delivering the mathematics framework, items, and coding since the first PISA survey and Kaye's view from research, teaching, and national policy and as chair of the Mathematics Expert Group for PISA 2012.

It is essential to acknowledge that many of the ideas in the book are the outcome of the joint work of the members of all the Mathematics Expert Groups from PISA 2000 to PISA 2012. Their names are listed at the end of this Preface along with

other key mathematics staff members of agencies contracted to develop and implement PISA mathematics over its first several survey administrations.

We also acknowledge the valuable input of the Springer editors and especially of the anonymous reviewers whose useful comments helped sharpen the text. It is a special pleasure to acknowledge the work of Pam Firth from the University of Melbourne for her able editorial and administrative assistance.

Opinions expressed in this book are those of the authors and do not imply any endorsement by the Organisation for Economic Co-operation and Development (OECD) or any other organization.

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