Description:

For over a decade, Teaching Fractions and Ratios for Understanding has pushed readers beyond the limits of their current understanding of fractions and rational numbers, challenging them to refine and explain their thinking without falling back on rules and procedures they have relied on throughout their lives. All of the material offered in the book has been used with students, and is presented so that readers can see the brilliance of their insights as well as the issues that challenge their understanding. Written in a user-friendly, conversational style, this text helps teachers build the comfort and confidence they need to begin talking to children about fractions and ratios. The clear distillation of complex ideas and the translation of research into usable ideas for the classroom make this text a valuable resource for all pre- and in-service mathematics teachers.

The highly anticipated third edition of this popular text has been heavily expanded and reorganized to make the connectivity of topics even more transparent, including more mathematics content, teaching/reasoning techniques, classroom activities, connections to other content, and applications to everyday life. In addition, the most effective features from previous editions have been retained.

Special Features:

* Children’s Strategies and samples of student work are provided in each chapter for teacher analysis.

* Activities for practicing the thinking strategies explained in each chapter, designed to be solved without rules or algorithms, using reasoning alone.

* Online Resources for Instructors including a sample syllabus, chapter overviews and relevant Big Content ideas for each chapter, and graphics that can be copied and resized for use in instruction and in constructing exams.