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Developing essential understanding of ratios, proportions, and proportional reasoning for teaching mathematics: Grades 6-8.

Essential Understanding Series. Reston, VA: National Council of Teachers of Mathematics (NCTM) (ISBN 978-0-87353-622-6). x, 88 p. (2010).

Publisher's description: How do you refute the erroneous claim that all ratios are fractions? This book goes beyond a simple introduction to ratios, proportions, and proportional reasoning. It will help broaden and deepen your mathematical understanding of one of the most challenging topics for students – and teachers – to grasp. It will help you engage your students, anticipate their perplexities, help them avoid pitfalls, and dispel misconceptions. You will also learn to develop appropriate tasks, techniques, and tools for assessing your students' understanding of the topic. Essential Understanding Series topics: – Number and Numeration for Grades Pre-K-2 – Addition and Subtraction for Grades Pre-K-2 – Geometry for Grades Pre-K-2 – Reasoning and Proof for Grades Pre-K-8 – Multiplication and Division for Grades 3-5 – Rational Numbers for Grades 3-5 – Algebraic Ideas and Readiness for Grades 3-5 – Geometric Shapes and Solids for Grades 3-5 – Ratio, Proportion, and Proportionality for Grades 6-8 – Expressions and Equations for Grades 6-8 – Measurement for Grades 6-8 – Data Analysis and Statistics for Grades 6-8 – Function for Grades 9-12 – Geometric Relationships for Grades 9-12 – Reasoning and Proof for Grades 9-12 – Statistics for Grades 9-12

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