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Poon, Rebecca C.; Lewis, Priscilla Eide

Unpacking the division interpretation of a fraction.

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Summary: One of the challenges in learning fractions is understanding how and why a fraction can have multiple interpretations. As presented in one textbook, a fraction is "a symbol, such as 2/3, 5/1, or 8/5, used to name a part of a whole, a part of a set, a location on a number line, or a division of whole numbers" [*R. I. Charles* et al., enVisionMATH common core, grade 4. Glenview, IL: Pearson (2012), p. 475]. How can a fraction take so many forms? In particular, why is a fraction also a division of whole numbers (e.g., $13/7 = 13 \div 7$)? In this article, the authors will present examples of classroom lessons that support children in developing conceptual understanding of the division interpretation of a fraction by building on children's knowledge of whole-number division. Children demonstrate conceptual understanding by: (1) using the partitive interpretation of division to construct a definition for the division of any two whole numbers; and (2) using established definitions and observations to show why the fraction m/n equals the division $m \div n$. (ERIC)

Classification: F40
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