ZMATH 2016a.00507

Sharon, Valerie V.; Swarthout, Mary B.

How many in one?

Math. Teach. Middle Sch. 20, No. 5, 308-312 (2014).

From the text: Fraction division is one of the least understood operations in school mathematics. However, just having knowledge of the invert-and-multiply algorithm does not guarantee that students will recognize a problem situation involving fraction division. The National Research Council recommends teaching fraction division within a real-world context to enable students to build connections between whole number operations and division by fractions. We used the context of serving pizza to a crowd of people to help prospective elementary school teachers understand fraction division. Students worked with pizza models and drew diagrams to show how many thirds are in 1 or more pizzas and then applied proportional reasoning to determine the number of servings in 50 pizzas.

Classification: F43 F49 U63 U69
Keywords: fractions; division; understanding; lower secondary; educational media; teaching aids; manipulative materials; fraction circles; unit fractions; improper fractions; non-unit fractions; student activities; worksheets; preservice teacher education; experience reports
http://www.nctm.org/Publications/mathematics-teaching-in-middle-school/2014/Vol20/Issue5/How-Many-in-One_/