Meeting: 1003, Atlanta, Georgia, MAA CP X1

## 1003-X1-406 Richard H. Stout\* (stout@gordon.edu), Department of Mathematics, Gordon College, Wenham, MA 01984. Serving Brownies Instead of Pie: An Alternative to Visualizing Fraction Operations for Elementary Teachers.

A common technique for visualizing fractions is to separate a disk or a strip into the required number of equal parts. However, these methods are not easily used to represent all the fraction operations, especially if a common denominator is required. An alternative picture, using rectangular regions to represent fractions and pairs of fractions, will be introduced. Examples will show how these diagrams can be used to explain the fundamental property of fractions and give meaning to each of the four fraction operations. Particular emphasis will be given to the operations of multiplication and division. (Received September 14, 2004)