

**ACES: Algebraic Concepts for Elementary Students  
Summer Institute, July 19-23 and 26-30, 2010**

**Agenda Day 6**

1. Welcome!
2. Coffee and Milk: You have two 8-oz glasses; one holds 6 oz of milk and the other holds 6 oz of coffee. You pour 1 oz of milk into the coffee, and stir it. Next you pour 1 oz of the coffee mix into the milk and stir.
  - a. *Without any calculation, guess*: does the coffee cup have more milk, or the milk cup more coffee? Make a note of your guess, then turn to the questions below.
  - b. How much fluid is now in each glass?
  - c. What is the ratio of milk to coffee in each glass?
  - d. What part of the mixture in each glass is milk? What part is coffee?
  - e. Do you agree with your guess from part a? Why or why not?
3. Proportional Reasoning Focus:
  - a. Overview of proportional reasoning. What is it – and what is it not?
  - b. Intuitive and formal proportional reasoning
4. Fraction focus:
  - a. Addition and subtraction of fractions
5. Lesson Study
  - a. Overview
6. Closure and evaluations

