

**MATH 311/510 HOMEWORK-5 DUE AT THE BEGINNING OF CLASS ON
TUESDAY, OCTOBER 7.**

- (1) During your observations this week, pay attention to the classroom dialog. In particular, consider the wait-time allotted during the classroom discussion. Is there a significant wait time between teacher utterances? Note any differences, between male and female students, in the amount and sophistication of the discussion. Pay attention to how students respond to each other, as well as to teacher responses to students. Write a 1-2 page description of what you observe. Provide actual examples of classroom dialog in this write-up.
- (2) Carefully read the Japanese lesson plan I handed out in class. Make notes on the structure of the plan. Bring comments and questions to class.
- (3) Carefully read the New York State Grade 7 modules on integer arithmetic. Outline a plan of how you might modify the multiplication model, based on the questions about consistency that were raised in class. Include in your outline an explanation of how an algebraic proof that, for $a, b \in \mathbb{Z}$, $(-a)(-b) = ab$, will be integrated into the lessons for this unit.
- (4) Continue reading the 9 - 12 standards in the NCTM Principles and Standards document.