

**MATH 311 HOMEWORK–DUE TUESDAY, NOVEMBER 11**

- (1)
  - (a) Read over each of the lessons from the grade 6 New York State curriculum module in which students develop and use the formula for the area of a triangle.
  - (b) Write a couple of paragraphs comparing these lessons to the work we did in class to develop these formulas using the Geoboard.
- (2) There were three equations on the board during the discussion on “the tank problem.” Write a paragraph explaining whether the notation was used consistently in these three equations. If there were inconsistencies, correct them.
- (3) In class we introduced the *partitive* and *repeated subtraction* conceptual models for division.
  - (a) Write one problem for each of the 2 models, and write the fraction division exercise that arises from each problem. The problems should not be about food, (or any cylindrical substitute for cake or for pizza).
  - (b) Think about how you would begin teaching, for conceptual understanding, fraction division. Bring your ideas to discuss with the class.
- (4) In your observations this week pay attention to classroom management, and write a 1-2 page paper on what you observe. You should address at least the following: What procedures are in place that allow the classroom to run smoothly? How does the physical layout of the room and equipment affect effective management of the classroom? Comment on the tone of interactions among students and between the teacher and the students. Comment on the instructor’s efficient use of time during the class. Note any procedures for transitioning from one class activity to another.