MA 310 001, Spring 2011.

- Problem solving lunch, Monday, 12 noon Mathskeller.
- Assignment to write a problem set, final draft is due on Monday, 4 April 2011.

For the final draft, please keep in mind the following points. Not all suggestions will be appropriate for every standard.

- 1. Give letter code and number and the statement of the the standard that you choose.
- 2. Give between 8 and 15 problems for the final draft.
- 3. Your problems should begin with simple routine calculations and work towards developing a deeper understanding. Thus, you might begin by having students verify that a given number is the solution to the equation and work towards techniques to find solutions.
- 4. Write a variety of problems.
- 5. Consider including problems where there is no solution or a more than one solution. Thus the problem might read "Can you find a solution to ...?" or "One solution is ..., can you find others?"
- 6. Include questions where students must write a few sentences explaining their reasoning.
- 7. Solutions to problems are not needed. In general, you will not need to include additional explaining the purpose of a problem. However, if you are concerned that the intent of a problem might be misunderstood, a brief explanation might be helpful.
- Continue working on problem set §2.2. Begin §3.1 as appropriate. Plan to read Courant and Robbins, pp. 235–240 when we begin §3.1.
- Wednesday, 6 April 2011, hand in $\S2.1 \#19$ and $\S2.2 \#3$.
- Reading assignment. Read "The mis-education of mathematics teachers" in the Notices of the American Mathematics Society and available by a link from the course home page, http://www.math.uky.edu/~rbrown/courses/ma31.s.11/. This should be prepared for class on Friday, 8 April 2011.
- Writing assignment. On page 379-80 of the reading assignment, Wu gives several fundamental principles of mathematics. Select one of these principles and explain how it has been violated in this course. I expect that this will take a page or two. Due Monday, 11 April 2011.

April 1, 2011