## Some tips on writing up assignment solutions

1. Every solution that you submit is a piece of original work with your name signifying that you are the author. You should be as reluctant to hand in a shoddy piece of work as you would to submit a poorly drafted manuscript to a journal or magazine.

2. Each solution should be readable and understandable to an intelligent outsider who has never taken the course. Every step should be explained in detail, and written up in grammatical English using full sentences.

3. A bunch of mathematical symbols is not a solution, even if you get the right answer.

4. Never, ever, hand in a first draft. After you have solved a problem, write it up and put it aside for 48 hours. Go back and re-read it, and re-write it. Fix up confusing passages, logical gaps, and flabby prose.

5. It is often helpful to refer to theorems or formulae from the notes. For instance, you may justify an argument by starting with "By Lemma C-1 on page 35 of the notes, we see that...". Notation or terminology not used in the notes should be fully defined and clearly explained.

6. In mathematics, as in any course at the university level, clear communication is a top priority. Pay attention to the structure of your sentences. Grammar and spelling are of the utmost importance.

7. I will say it again: a correct answer is not worth 100%. The world does not need solutions to these problems. The point of the exercises is to improve both your skills in mathematical problem solving, and in communicating the results to others. For full marks, you must convince the grader that you have achieved those aims.

8. Make a serious effort to improve your writing. Read and study some of the following, or similar works:

    - *Mathematical Writing* by Donald Ervin Knuth, Tracy Larrabee, and Paul M. Roberts.
    - *Handbook of Writing for the Mathematical Sciences, 2nd Edition* by Nicholas J. Higham.
    - *A Guide to Writing Mathematics* by Kevin P. Lee. Available at `www.cs.ucdavis.edu/~amenta/w10/writingman.pdf`