Math 170, Lab 8: Introduction to Mathematical Writing

In this lab you will practice mathematical writing for a non-technical audience. You will solve a problem, posed in a fictional letter, and explain your solution in the form of response letter. You may collaborate with each other, but each student should submit their own letter.

Goals:

- explain a mathematical solution to a real-life problem in plain English
- smoothly incorporate mathematical expressions into your writing
- effectively use tables, and graphs to support written description of mathematical ideas
- format mathematical expressions nicely with a word processor

Keep in mind what you learned about good mathematical writing in Guide to Writing Mathematics. I will be looking to make sure that you

1. Restate the problem that was asked,
2. Give a brief description of your solution (before explaining how you solved the problem),
3. Show *that* your solution works (still before explaining how you solved the problem),
4. Explain how to solve the problem,
   (a) stating any assumptions you are making,
   (b) defining any variables you use (and don't include more variables than you actually need!),
   (c) including clearly labeled tables or graphs if they will help you make your point,
   (d) and explaining how each formula is derived (or indicating a reference where a person could find a derivation of the formula),
5. Use correct spelling, grammar, and punctuation, so that your point comes across as clearly as possible.

Lab Assignment:

1. Read the attached letter asking you for your help in solving a mathematical problem.
2. Solve the problem.
3. Write a response letter with your solution. Follow the Guide to Writing Mathematics.
4. Review your letter in terms of the checklist, and make necessary revisions.
5. Submit your final draft in class Monday March 5.

This letter is adapted from one of Annalisa Crannell's writing assignments.