

Workshop solution guidelines

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I'll describe what it takes to get a perfect score on the workshop.

First, note that there will be two workshops and they are together worth the same amount as all the homework, so expect this to be a fair amount of work.

Secondly, all the math must be complete and correct. Make sure you read the entire workshop carefully and don't skip anything that you are asked to do. Also, you can check your answers with other people to make sure that they are correct.

Complete and correct mathematics is worth about half the total grade of the workshop. So what is the rest? Writing, clarity and exposition.

For some general guidelines you should read the section on mathematical writing contained in the Loyola College Writing Handbook. Now I'll mention some more specifics for this workshop.

1. You can write things up by hand. However, in this case your writing should still be clear, neat, the organization on the page easy to read, etc.

Typing up the words is a good way to make everything clear, neat, etc., but in this case you probably want to leave blank space in there for you to write the equations by hand.

(For those who are really devoted to writing beautiful mathematics, you can learn about and use \LaTeX , which is installed on Citrix, and in the math lab KH318.)

2. You should have an introduction and a conclusion.
3. Your graphs should be clear, neat, labelled, and include x and y values on the axes.
4. All words should be part of complete, grammatical sentences.

You should not say "Solve", but "We solve the equation" or "The solution of the equation is ...".

You should not say "Newton's method:..." and then have lots of numbers. Rather "Newton's method, applied to $f(x) = 0$, gives a sequence of approximate solutions ...".

Etc.

5. I should be able to turn to any page of your solution, point to any mathematical symbol on that page, ask myself the question "what is this part for?" and be able to find the answer contained in a complete sentence, just one or two or three lines above the math.

A consequence of this rule is that it is ok to have a bunch of sentences together without any math, but most of the time you should not have a bunch of math together without any sentences. Most of the time the most math you should have is two lines of math, one line of sentences, two lines of math, one line of sentences. (Exception: if you have ten lines of math, all of which are really almost completely identical to each other, with no different steps, then it would be ok to just explain the first line with words, and then have the other 9 lines follow quickly.)