

Comments on the grading of homework

Each week, some large number of problems will be assigned. They will be turned in on Monday the following week. They will then be graded by a grader hired by the math department. This document gives some details how the assignments will be graded.

Each assignment will be graded out of a possible 25 points. The grader will choose 4 problems each week to grade. These will be graded on 5 point scale, with perfect (or virtually perfect) worth 5 points, a good attempt worth 3, and something/anything but completely wrong worth 1.

As $4 \times 5 = 20$, there are still 5 points left to assign. These will be assigned on the overall presentation and completeness of the assignment. Not doing all the problems, or handing in something not showing proper respect to the assignment will lose points. Below are some comments on what a good assignment will look like.

- Mathematics is a language, and as such it has standards of writing which should be observed. In a writing class, one must respect the rules of grammar and punctuation, one must write in organized paragraphs built with complete sentences, and the final draft must be a neat paper with a title. Similarly, there are certain standards for mathematics assignments.
- Write your name and class number clearly at the top of at least the first page, along with the assignment number, the section number(s), or the page number(s). If your write-up is more than page, the pages should be stapled together and your name should be on all the pages. Do not fold, tear, spit on, or otherwise "dog-ear" the pages. (It is better that the pages be handed in loose with your name on each sheet than that the corners be folded or shredded. However, this is still not good.)
- Use standard-sized paper (8.5" x 11"), with no "fringe" running down the side as a result of the papers having been torn out of a spiral notebook, and do not use sticky-notes, scented stationery, or other nonstandard types of paper. Use standard-weight paper, not onion skin, construction paper, or otherwise abnormally thin or heavy paper.
- Clearly indicate the problem and the parts you are doing. If you accidentally do a problem out of order, or separate part of the problem from the rest, then include a note to the grader, referring the grader to the missed problem or work.
- Do your work in pencil (won't lose points for this, but a very strong suggestion), with mistakes cleanly erased, not crossed or scratched out. If you work in ink, use "white-out" to correct mistakes. Write legibly (suitably large and suitably dark); if the grader can't read your solution, it's wrong.
- Write neatly across the page, with each succeeding part below the preceding one, not off to the right. Please do not work in multiple columns down the page (like a newspaper); your page should contain only one column. Keep work within the margins. If you run out of room at the end of a problem, please continue onto the next page; do not try to squeeze lines together at the bottom of the sheet. Do not lap over the margins on the left or right; do not wrap writing around the notebook holes.

- Do not squeeze the parts together, with one problem running into the next. Use sufficient space for each problem, with at least one blank line between one problem and the next.
- Do "scratch work," but do it on scratch paper; hand in only the "final draft." Show your steps, but any work that is scribbled in the margins belongs on scratch paper, not on your writeup.
- Write out the problems.
- Show your work. This means showing your steps. Show everything in between the question and the answer. Use complete English sentences if the meaning of the mathematical sentences is not otherwise clear. For your work to be complete, you need to explain your reasoning and make your computations clear. You do not need to show every step of a basic arithmetic problem. You may say "We solve $7x + 3 = 2x - 8$ and obtain $x = \frac{-11}{5}$. However, you should show every step that is not obvious (in the eyes of the reader/grader) and every step directly relating to the topic being investigated in the assignment.
- For tables and graphs, use a ruler to draw the straight lines, and clearly label the axes, the scale, and the points of interest. Use a consistent scale on the axes, and do a T-chart, unless instructed otherwise. Also, make your table or graph large enough to be clear. If you can fit more than three or four graphs on one side of a sheet of paper, then you're drawing them too small.
- Do not invent your own notation and abbreviations, and then expect the grader to figure out what you meant. For instance, do not use "#" in your sentence if you mean "pounds" or "numbers". Do not use the "equals" sign ("=") to mean "indicates", "is", "leads to", "is related to", or anything else in a sentence; use actual words. The equals sign should be used only in equations, and only to mean "is equal to". Do not use " \rightarrow " to mean "=".
- Do not do magic. Plus/minus signs, " $= 0$ ", radicals, and denominators should not disappear in the middle of your calculations, only to mysteriously reappear at the end. Each step should be complete.
- If the problem is of the "Explain" or "Write in your own words" type, then copying the answer from the back of the book, or the definition from the chapter, is unacceptable. Write the answer in your words, not the text's.
- If the problem is True/False, then an answer should either be of the form "True, because . . ." or "False, and here is a counter example". Just writing "T" is not sufficient. Note, the explanation need not be long. "True, because that is the definition on linearly independent" is sufficient.