About your assignments

Your homework assignment is a presentation of your work. It should reflect the effort you put in by its proper presentation.

Homework etiquette

1. The homework should be done on letter size white or lined paper with writing only on one side. You can use recycled paper for your practice problems and rough drafts.

2. It should be stapled at the top left corner with your name and assignment number clearly written on the first page.

3. The problems should be done in order, in a single column (do not divide the paper vertically into two or more vertical columns), with at least an inch of space between consecutive problems. I will not grade all of the problems so I should easily be able find the ones I am looking for.

4. If you want, you can type your assignments using Word, TeX or some other typesetting program. If you want to find out more, ask me.

5. Your proof questions should read like paragraphs with enough words to explain what is going on besides the equations and the math. Use the examples in class and the ones in the textbook as guides. When you read your proofs out loud, they should make sense. Proofs are made up of sentences with equations and math symbols in between. Every week, I will choose at least one proof question to grade.

6. Do NOT look up answers on the internet. Yes, most are available. Calculus has been around for centuries and it is taught at every college throughout the world. If you can search it online, so can I. If I suspect that the solution or proof you have is not your own, I will ask you to explain it to me on the spot, including the process of how you got the idea. Copying someone else's solution is CHEATING. You will not learn. Do NOT cheat.

Suggestions

1. Before the week starts - assignments will cover Friday to Wednesday schedule- go over the sections we will cover. You have taken calculus before so the material should be familiar to you. Look at all the questions. Try to do as many as possible, mostly from the ones you are not going to hand in. Those are mostly computational. As we go through the sections in lecture, do the problems from that section. When you go into Thursday's section with your TA, you should have attempted ALL the questions and completed at least the first part which you will not hand in. Thursday's quiz will be from that first part.

2. Doing the assigned problems is the minimum requirement to keep up with this course. I would suggest you look at all the problems in the section. In particular, you should be comfortable doing all the computational exercises. If you have trouble with one assigned question or believe you need more practice, solve the ones in the same group until you are confident you got it.

3. For the longer questions,first try them on your own. Then, discuss with a classmate. You can always ask me or your TA. Ask early. Sunday late night email is too late. When you ask me about a long proof question, the first thing I will ask you will be "'What have you tried so far?" so we can build on that. See 4(b) below.

4. Here are some suggestions for attacking proof questions:

    (a) All proof questions require an IDEA before you start writing up the proof. In order to explain why something is true, you have to firmly believe that it is true and understand it.

    (b) You can do examples to get an idea. For example, if it is a proof about all continuous functions, try some of your favorite continuous functions with their formulas or their pictures. Convince yourself that it works every time. Then, use your example or picture to come up with the steps of the proof.

(c) You can also look at the proofs from the lectures or the textbook. For example, if we do one proof about the sum of functions, you should be able to adapt it to write a proof about the difference of functions. If you have to do a proof for n functions using induction, understand how the case with 2 functions works.

(d) The picture or the example itself will not constitute a proof. So when you are done with your proof, read through it to see if you missed anything. EVERY step in a proof must either be a previously established or known fact (Axiom, Theorem etc.) which you can reference to or follow from a previous step in the proof. If this previous step in not the immediate one above, explain or make a reference to it. Do not skip steps in computations. I should not have to take out a piece of paper and pen and check your computations.

(e) Read your proof out loud to yourself or show to a friend. Can you or your friend follow the argument?

(f) Treat your proofs like any other writing assignment. Do not hand in your first draft unless you achieved perfection in your first try.