Math 121A Midterm Performance Analysis

Part I. Please answer the following questions honestly (e.g. don’t worry that I will judge you negatively if you say that you did not study for the midterm at all). The point of the questions is to gain insight into your exam preparation so that you can improve your study habits and overall exam performance, and we can’t fix what is going wrong if we do not know what it is.

(1) When do you usually start working on your homework problems that are due on Fridays?

(2) What day did you start studying for the midterm exam on Thursday, Feb. 15th?

(3) Did you space out your studying for the midterm exam, e.g. one hour each day for one week? Or did you study in one or two long blocks?

(4) When you were studying for the midterm, did you practice solving all of the in-class problems? If yes, specifically how did you do this? Did you re-read solutions to them? Did you just think about the beginning of solutions to them? Did you write down partial solutions to them? Or did you write down complete solutions to them? Did you look at any resources while writing your partial or complete solutions?

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(5) When you were studying for the midterm, did you practice solving all of homework problems? If yes, specifically how did you do this? Did you re-read solutions to them? Did you just think about the beginning of solutions to them? Did you write down partial solutions to them? Or did you write down complete solutions to them? Did you look at any resources while writing your partial or complete solutions?

(6) When you were studying for the midterm, did you practice proofs of all of the theorems on the review outline (note that all but one overlap with homework problems)? If yes, specifically how did you do this? In particular, did you look at proofs from your notes to help you? Did you ever write the full proofs without looking at any resources? Did you try explaining the proofs to someone else?

(7) When you were studying for the midterm, how did you deal with the questions that you had? Did you bring them to the Professor? Did you bring them to the TA? Did you ask another student?
Part II. Please choose a problem from the midterm on which you lost the most points. Solve that problem correctly here.
Part III. This part requires you to list several of the homework problems and in-class problems. Please reference them using the following scheme:

- For homework problems, use the notation HW \( m.n \) to denote problem \( n \) from homework assignment \( m \). For example, HW 3.2 denotes problem 2 from homework set 3.
- For in-class problems, please first look them up using the on-line course calendar. Then, you may either reference them by name or you may use the notation IC \( mm/dd \) to denote the in-class problem from the date \( mm/dd \). For example, you can either reference the in-class problem on February 1st as IC 2/1 or “Location Approximation Problem”.
- For theorems from the review outline (posted in the announcements section of the course website main page), you can just write RO.

(1) Backwards map the exam problems to the homework problems, in-class problems, and theorems from the review outline. In particular, you will put yourself in the shoes of the Professor who is writing the exam. Given a problem from the exam, where is it coming from? For each problem, find as many relevant sources as you can.

(a) Exam problem one:

(b) Exam problem two:

(c) Exam problem three:

(d) Exam problem four:

(e) Exam problem five:

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As mentioned in class on February 22nd, not counting overlapping problems, there are a total of 28 homework problems and in-class problems (so there are 29 pieces of content if you count the proof from the review outline about second differences and quadratic sequences). One effective way to study these 28 pieces of content would be to organize them in groups of problems that are testing the same ideas. Please do so here. Continue to reference the problems using the notation of the previous page.