



Analyzing Your Problem-Solving Exam

Use the prompts below to analyze and learn from graded and returned exams to improve your learning, studying, and exam preparation process, as well as your test-taking strategies. Doing so will improve your exam performance and increase your sense of satisfaction.

1. Learning from exams really starts BEFORE you take the exam. As you prepare for the exam, you try to guess what kinds of problems the instructor is going to put there.
2. After you get your exam back, the first thing to notice is:
 - Have I anticipated correctly the types of problems that were asked?
 - Did I think I was prepared for a type of problem but then discovered on the exam that I couldn't do it?
 - Did I spend a lot of time studying something that wasn't even asked?
(In order to answer these questions, one really has to think about and make notes before the exam.)
3. Second, what kind of mistakes have I made? Were they avoidable mistakes -
 - Mistakes because I didn't read the question carefully? Perhaps left a portion of the question unanswered?
 - Mistakes because I didn't check my work after I finished (possibly in an independent way, or maybe substituting solution back in the equation)?
 - Mistakes because I wrote down the solution in a way that was unreadable for myself and whoever is grading it?
 - Have I written down everything a grader needs to know about my thought process, or are there things that were implicit and "clear" to me but the grader didn't think so?

- Were there problems where I could have written down at least something to indicate that I know the method of solution, such as "I know this is a max/min problem, but I can't find the function. Such problems are solved by doing x, y, z."
 - Did I use clear and unambiguous notation? (I had an example on the last quiz where a person called the quantity of a product "x" when x was already taken - it was the price of a product).
 - Did I make errors in calculations? (sign errors are especially common, especially if the student doesn't write the parenthesis around an expression;
4. Were there problems I could figure out, given more time? This is an indication that I didn't practice enough to be fast enough and finish in time.
 5. Were there problems I just didn't know how to do? This often comes from memorization of solutions to certain kinds of recurring problems rather than understanding the underlying concept and starting the solution from first principles.
 6. How different was that question from something in the class or on homework?
 7. Have I checked the homework solutions before the exam to see if the solutions contain something different or something extra from which I could learn?
 8. Do I know the definitions? Do I know the main ideas?

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