

Things I wish I could have told them

(Collected after seeing the same “small” mistake over and over)

1. There is no need to simplify arithmetic. (even in a long Riemann sum)
 2. Don't cross out your work unless you know you can do better.
 3. Be sure to label your answers.
 4. If you are afraid your result is wrong in part a, use it anyway to finish the problem (use something reasonable guess)
 5. If you do something on the calculator, describe it clearly in mathematical terms
 6. Don't write bad math. Examples: “ slope of derivative” or “ $6.2368 = 6.237$ ”
 7. Remember: 3 decimal places. Rounded or truncated. (more is ok)
 8. Don't write $f(x) = 2(1.5) + 3$ when you mean $f(1.5) = 2(1.5) + 3$
 9. Name the function you are referring to. Not “ the slope is...” but “ the slope of g is...” when more than one function is being used.
 10. If you are being asked to write an integral, start with at least the limits and constant and make a guess at the integrand.
 11. Know the difference between increasing and positive. f is increasing when f' is positive.
 12. Remember, you only need to do the four functionalities on your calculator. (Graph, Zeros, Numerical derivative, Definite integral) No question will be written which will require anything else and no question will be presented where using something else would be an advantage.
 13. Know the difference between local (relative) and global (absolute) extrema. *check the endpoints !!
 14. Know the difference between the extreme value and the **location** of the extreme value. * x or y value?
-

AP Prep-
Math & Science

The following strategies were developed by faculty consultants to help you on exam day.

- 1 Before beginning to solve the free-response questions, it is a good idea to read them all to determine which ones you feel most prepared to answer. You can then proceed to solve the questions in a sequence that will allow you to perform your best.
 - 2 In the exam booklet there is an insert that contains the same questions without the blank answer spaces. This can be removed from the booklet and used for reference. No credit is given for anything written on the insert; be sure to write your answers and do all your work for each problem in the pages provided in the answer booklet.
 - 3 Show all your work; partial credit is given for partial solutions to problems. If the answer is not correct, you are not likely to receive credit for correct thinking if the person scoring the examination does not see evidence of this process on paper. If you do work that you think is incorrect, simply put an "X" through it, instead of spending time erasing it completely.
 - 4 Organize your answers as clearly and neatly as possible, showing the steps you took to reach your solution. If the faculty consultants cannot easily follow your reasoning, you are less likely to receive credit for it.
 - 5 Many free-response questions are divided into parts such as a, b, c, and d, with each part calling for a different response. Credit for each part is awarded independently, so you should attempt to solve each part. For example, you may receive no credit for your answer to Part a, but still receive full credit for Part b, c, or d. If the answer to a later part of a question depends on the answer to an earlier part, you may still be able to receive full credit for the later part, even if that earlier answer is wrong.
 - 6 It is not necessary to simplify all numerical expressions or to carry out all numerical calculations. You will generally receive most, if not full, credit for answers that contain expressions like $\sin 40^\circ$ or $\ln 2$, or that contain symbols for irrational numbers.
 - 7 It is important to pay attention to units for quantities that have them. If you keep track of units as you do calculations, it can help you express your answers in terms of the proper units. It is possible to lose points if the units are wrong or are missing from the answer.
 - 8 You should not use the "scatter shot" approach, i.e., write a bunch of equations hoping that the correct one will be among them so that you can get partial credit. In such cases, faculty consultants may well deduct points for the extraneous or incorrect information.
-