

Things To Remember

(Common Mistakes That Make Readers Pull Their Hair Out.)

*Ben Cornelius from the Oregon Institute of Technology compiled this list several years ago. It still works for me and my students. - from AP Calc listserve April 27, 2005

1. There is no need to simplify arithmetic. It won't make the answer any more correct (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 and use correct units.
4. If you are worried that your result in part (a) is incorrect, use it anyway to finish the problem.
5. If you use your calculator, describe it clearly in mathematical terms, not in calculator speak.
6. Don't write bad math. (e.g. "Slope of the derivative." or "6.2368 = 6.237" or "-17.21 = 17.21")
7. Remember: 3 decimal places, rounded or truncated. (More is ok.)
8. Don't write $f(x) = 2(1.5) + 3$ when you really mean $f(1.5) = 2(1.5) + 3$.
9. Every pronoun needs an antecedent. Name the function you are referring to. Do not say, "The slope is ...". Say, "The slope of g is ...", especially when more than one function is being discussed.
10. When asked to write an integral, start with the limits and any constants of multiplication. Then you can make a guess as to the integrand.

11. Know the difference between increasing and positive. f is increasing when f' is positive.
12. Calculator work will be limited to the four required functionalities: graphing, roots, numerical derivative, and numerical integration. You will not be required to do anything else with your calculator and no question will be asked where using an additional feature would give an advantage. (e.g. curve fitting)
13. Know the difference between local and global extrema.
14. Know the difference between the extreme value (y-coordinate) and the location of the extreme value (x- and y-coordinate).
15. When justifying local extrema or points of inflection, make sure your number line or chart is labeled. Summarize the results in complete sentences.