Various grading policies, S. Hudson, 7/28/04

Here are some general grading principles that I have used over the years, including a little advice to my students. I am writing this with Calculus II in mind, but it applies to all my courses. It is not required reading ! I try to convey most of this in class, and you don't really need to know most of it anyway.

When to simplify an answer ? Perform any steps taught in present/past college math classes. Don't leave answers in forms like these:

$$\textbf{NotOK} \quad \sin(\pi), \quad \ln(0), \quad 4^{3/2}, \quad x^2|_0^1, \quad \int_0^2 x\, dx$$

You can omit most pre-college arithmetic (multiplication, adding fractions, etc) and terms that require a calculator. You can leave answers like these:

$$\textbf{OK} \quad 1 + 2/3 + 3/5, \quad \ln(2), \quad \sqrt{12}, \quad x(x+1) - x^2$$

If you make a mistake in simplifying (or by not simplifying) it is not likely to affect your grade very much. But feel free to ask me during an exam about any answers you are not sure about.

Grading and Partial Credit: The thorny questions are usually about partial credit, which seems to defy any scientific approach. Different teachers use different systems. These are often vague and they can change daily. I assign partial credit subjectively, but do try to follow certain principles, until they clash with each other, or until I discover ones I like better.

1) I grade Problem 1 consistently for the whole class before going on to Problem 2. I may grade differently from one year to the next, but (hopefully) not from one minute to the next.

2) I deduct very few points for silly accidents, which I could make myself, such as simplifying badly at the end (eg $3^{-2} = -9$). But I'll deduct more -

when the resulting answer is *obviously* wrong (eg a negative area).
for a silly mistake *at the start*, that changes the whole problem.
for using a theorem or formula badly, which is more serious.

3) When in doubt, I imagine how well you might fit into a team. If you seem to know what you are doing, and your work is clear, you get lots of credit (even with a few mistakes). If your plan seems wrong or I cannot follow your work, you'll probably get no credit.

4) Bad work + correct answer = a grading dilemma. Did the student cheat, get lucky, or just explain very badly (or not at all)? I have no general rule, but usually give half credit, or less. If you do not follow the rules [to show work, to hand-in your scratch paper, to leave a note about an answer on the back, etc], it may create a similar problem.

5) An unexpected method is fine, if -

I can follow your reasoning with confidence.
It is not so long or hard that mistakes appear, and they even seem inevitable.

6) I do not give much partial credit for very short problems, and none for True-False. For True-False-and-Justify, I give partial credit (about half?) if the TF part is OK and the Justify is not, but no credit if the TF part is wrong.

7) What about a 15-point problem with 3 parts? Probably, each part would count 5 points *if they are independent*, with little/no partial credit on each part. On the other hand, suppose a 10-point problem requires 5 easy steps. I might deduct about 3 points for each incorrect step (until the grade gets low).

8) Grading proofs is fairly subjective, but I generally look to see if all the key steps are included, in the right order, and with good verbal explanations. I try to read each proof like a skeptical beginner. I try to grade more gently in Calculus than in a graduate course. Bottom line: Is it clear and 100% convincing?

9) I am generally willing to review my grading upon request, if you suspect there has been an objective mistake. For example, maybe I did not see part of your answer, or added the points wrong, etc. I am less willing to review subjective decisions about partial credit. I do not cooperate with students who repeatedly ask for reviews without cause, who just want to raise their grade.