## 1. Set up your Grading Rubric

A) Solve the problem you are going to grade, keeping in mind the following:

- Are there multiple approaches to the problem?
- What key concepts must be understood in order to solve the problem?
B) Briefly review ten or fifteen homeworks/quizzes/exams to get a better feeling for common mistakes, and consider the corresponding partial credit points.
C) Assign a point value to the problem as well as a rough scheme for assigning partial credit, keeping in mind the following:
- Low point schemes more easily lend themselves to consistent grading; for example, if a problem is worth 4 points, you could use a scale such as $4 / 4$ means within epsilon of perfect, $3 / 4$ means over half correct, $2 / 4$ means a good start or around half correct, $1 / 4$ means the solution contains a seed of a relevant idea, theorem, etc.
- Students should receive at least some partial credit for demonstrating knowledge of the key concepts that you identified in step one.
- Remember that a student's solution process is generally more important than the final answer to the problem (depending on the statement of the problem, correct answers without justification can receive a score of 0 ).


## 2. Using your Grading Rubric

When grading, you want to find a balance among the following three universal virtues: Accuracy, Consistency, and Efficiency
A) Accuracy. This is the most obvious goal, from a pedagogical standpoint.

- You may want to assign partial credit points based on your answers to the following: What is this question looking for? Is it more computational or conceptual? Which steps are the most important?
- While grading, write brief comments to (i) correct student's errors and (ii) explain possibly ambiguous marks you've given.
B) Consistency. This is half about fairness, and half about keeping yourself out of trouble.
- Once you've assigned partial credit points to responses you believe will be common errors, be sure to write them down. Then refer to your rubric often, making small refinements as you go.
- When an unforeseen error arises, write down the points you award it. It's likely you'll see that error again before you're done.
- Spot check yourself often - set aside the first few papers and refer to them at regular intervals as your grade, are you staying consistent.
C) Efficiency. After the discovery of fire, it took humanity a little while to discover calculus. Grading for calculus, however, should not take this long.
- Grade only a couple problems at a time, depending on complexity.
- Refer to your expanding rubric often.
- Don't get bogged down on any one question.

