

Presentation/Participation Component
Math 7500
Dr. Michel Smith

The process: At the end of class or after class via email the assignment for the next class (or classes) will be given - this will often be to continue working at proving the upcoming theorems and exercises from the class notes. I use a (pseudo) random number generator to select the order in which the students are called to present. The selected student should present their proof/solution on the blackboard and should carefully explain their reasoning. Students are allowed to discuss homework problems with other students in the class (but may not use any other outside help), as indicated in my essay on the Socratic Method; when the solution to a homework problem was done collaboratively then the collaborators must be given credit when the student submits the solutions. Problems on quizzes and test may not be done collaboratively.

Based on the student's solutions and presentations, I assign a grade according to the rubric outlined below. If a student makes a major mathematical mistake, I generally give them the opportunity to correct their work for the next class for full credit. So a student who makes a major mathematical mistake can correct it and still receive an A presentation grade for that presentation. Also, I give students opportunities to get extra presentation points by volunteering to present extra exercises and theorems. I feel that this encourages the students to work hard on their presentations.

In terms of time, 6 to 7 minutes for a presentation is probably closer to the minimum – some have gone as much as 15 minutes depending on the difficulty of the problem and the questions from the class (and from me).

Presentation Grade Rubric. Note that the grade for late homework will be prorated according to how late it was submitted.

Students will be called to discuss their solutions to exercises; sometimes this will be in the form of a “dialogue” with me with the class permitted to comment and ask questions.

Excellent (90 -100%). An excellent presentation is one where:

1. The mathematics is correct barring some minor errors (and these errors are corrected during our dialogue or in response to questions from me or the class).
2. The presentation is understood by the class – essentially this means that all their questions are adequately addressed. (In practice this means that the attentive student in the class can solve a similar problem to the one presented. I will often ask the class, or someone in the class, to justify some particular step based on the presentation to make sure they understand.)
3. The student can adequately address my questions.

Good (80 -90%). A good presentation is one where:

1. The mathematics is for the most part correct but the student makes some errors; I have to explain some step to the class because the presenter does not adequately do so. But the underlying idea is sound and they are able to present that idea.
2. The class has questions of understanding, and I have to help a little to explain or add to the proof or solution.
3. The student answers most of my questions with a little help (often the class will help, in fact!)

Basic (65 - 80%). A poor but passing presentation is one where:

1. The student uses the correct techniques but does not have a correct explanation of the steps needed toward the solution.
2. They may have the “answer” but do not explain it well enough to the class.
3. The student cannot answer my questions well.

Poor (0 - 65%). A poor presentation is one where the student does not have the mathematics correct and does not indicate any understanding of the problem or is not prepared to present at all. I assign the passing percentage if the student clearly made an attempt to do the problem.

Participation. When I conduct a “Socratic dialogue” in class, each student who responds to my questioning will receive participation credit. Again, I use my random number generator to select students to answer my questions. Students presenting their work automatically receive participation credit.