

### *Guidelines for final presentations*

In a little over a week you'll begin to give your presentations on proofs. Although your presentations need not be nearly so formal as those you'll eventually give in your senior seminar (if you're a math major), or in conferences and symposia, should you choose to do some undergraduate research while you're here, there's no reason not to make up a quality talk for this occasion. I hope that the guidelines below will let you know my expectations for this presentation, and will therefore help you to craft the talk you'll share with class.

- **Topic.** By now I believe you've all decided on a topic for your team's talk. You should take care that you understand your topic well, well enough, for instance, to answer any basic questions others might want to ask about your propositions and proofs. Take care that you don't construe your topic too broadly: your goal is to present briefly on a specific problem or proposition, and not to discover an entire subfield of mathematics. One or two simple propositions, with proofs or proof sketches, and a short example or two, should suffice for all of you.
- **Timing.** Please aim to make your talk between 12 and 15 minutes, and *practice* your talk to fit it into this window as snugly as possible. I will run the talks in "conference" style, meaning that I will moderate and indicate to you when you're running out of time and if need be cut you off if you run over. There will be a very brief period for questions and answers after each talk before the next one commences.
- **Team participation.** *Every* member of your small team should play an active part in your presentation. The best way to manage this is to divide the task of talking between your team's three members so that each of you speaks on a different portion or facet of your work. Try to plan your presentation so that the transition from one speaker to another corresponds with a change of direction or a clearly defined portion of your work; that'll make the talk seem more smooth. Finally, I should note that it's always awkward when three people are standing in front of a class and only one is speaking and the other two are struggling to figure out what to do with their hands. I'd recommend that those of your team who aren't speaking at a given time sit off to the side and let the third have center stage.
- **Manipulatives and media.** Many of your topics are made much more understandable through visual aids, hands-on activities, *Mathematica* computations, *etc.* If you're tempted to use some sort of electronic medium or manipulative to explain your team's topic, by all means feel free to incorporate these pedagogical aids into your presentation. If you'd like my help on doing this, **PLEASE** don't hesitate to ask me for it. I'd be delighted to help you with technical details.

- **Practice, practice, practice.** Before it's your turn to present, you should run through your talk several times, as a team alone, maybe with friends, and/or with me. I am at your disposal as an audience, and I hope that you'll consider setting some time aside with me in order that you can show me what you've got and let me help you fine tune your talk if needed. The more you practice your presentation, the smoother it'll get, the better the sense of timing you'll achieve, and the more you'll understand the material and be able to answer questions on it.
- **Assessing your presentation.** How will your talk be graded? I will place equal emphasis on each of the Four Cs: Clarity, Correctness, Completeness, and Composition. Your topic should be made clear, and you should strive to make no factual, computational, or logical errors. You should offer a complete proof for any proposition you give, and your talk should be designed to be smooth and flow nicely (*i.e.*, be well-composed). (Please see the rubric for the course, available on the class website, for more information regarding each of these points.) As I said at the outset of these guidelines, this talk is not meant to be as formal as a senior seminar presentation or a conference talk, and accordingly I will not hold you to such standards as those venues would demand. However, I will expect a quality presentation commensurate with your level of mathematical maturity.

Let me know if you have any questions as you put your presentations together, and let me know soon if you'd like to set aside some time with me to run through your topic and tweak and test your talk.