

## Problem solution presentation requirements and expectations

### Goals

- To deepen engagement with course material.
- To provide practice in communicating technical material.

### Requirements

- Prepare a carefully organized and efficient presentation with attention to appropriate level of detail.
- Use some combination of board-work, handouts, and computing technology.
- Be prepared to start promptly when your time arrives.
- Be attentive to how well the audience is following.
- Invite and respond to questions.

### Notes

- A typical presentation will be about five minutes long. Aim for no more than ten minutes (although some more involved problems may take a bit longer).
- Start by paraphrasing or summarizing the problem statement.
- You can either write details on the board as you go or lead the class through details you have written out in advance on a handout that is either photocopied or projected on the screen. If you would like me to photocopy a handout, come to class a few minutes early with the original (or bring it to me earlier in the day).
- If you are writing details on the board, work at providing some commentary as you write to provide guidance on the overall structure and reasoning in your solution. If you are guiding the audience through details you have written out in advance, have organization that makes clear where the audience should be focusing.
- Think carefully about how much detail to include. Including too much detail (for example, lots of algebraic and arithmetic steps) obscures the main flow of logic and reasoning. Omitting too much detail forces the audience to work hard to connect steps. Consider omitting routine algebraic manipulations and arithmetic steps.
- Choose your notation carefully. Always state a specific meaning for a new symbol before using that symbol.
- Plots that you intend to be qualitatively correct can be drawn on the board by hand (or included in your handout). Plots that you intend to be quantitatively correct should be carefully prepared in advance and presented either on paper or projected on the screen.
- If you plan to use the projection system, check it out in advance to make sure things work as you intend. Let me know if you have questions on how the system works.

## Assessment

- Content (60%)
  - Are the details of your presentation technically correct?
  - Does your presentation give a complete solution?
  - Does your presentation include an appropriate level of detail for the audience?
- Insight (30%)
  - Is your approach accessible to the audience?
  - Have you selected an approach or strategy that is more elegant or useful than other approaches?
  - Does your presentation give the audience insight on the problem, result, or relevant concepts?
- Mechanics (10%)
  - Is your voice clear?
  - Are your board-work, handouts, and use of computing technology easy to follow?