DISCRETE MATHS EPIPHANY 2025

ASSESSMENT CRITERIA FOR THE SEMINAR COMPONENTS

Group presentation. You have about 15 minutes for your presentation, plus a few minutes for questions and changeover to the next subgroup. (We'll allow 20 minutes total per subgroup.) The main objective is to communicate to the audience something interesting and understandable about your topic. There will not be time for everything on the worksheets; it is up to you what you cover, and in how much detail. Bear in mind that your audience will be Discrete Maths students, of various degree-subject backgrounds, who have been studying other topics in the seminar session, and will know nothing about your topic (but will know what you did in the Discrete lectures).

We plan to hold the presentations in person, and the default expectation is that presentations will be delivered via a combination of visual material (slides) and a spoken presentation by members of your subgroup. If you propose something radically different from this, please check with your Seminar Leader to see if it is feasible. For the slides, you can use LATEX or word-processed slides, or "handwritten" material using a tablet or a scan of paper. Everyone should play some role in creating and/or giving the presentation, and everyone should attend the presentations.

Two members of staff will mark your presentation. Most people will receive their group's mark, but you may lose marks if your seminar leader considers that you have not participated enough, e.g. if you have missed classes without good reason, or not worked in the sessions, or not contributed to the presentation.

Marking criteria for the presentation.

- Is it a coherent account of some aspects of your topic? Does it have a clear objective, or objectives? Will the audience gain something substantial from your talk?
- Is it understandable to someone new to the topic? Are the necessary ideas and notation properly introduced and explained? Are there helpful examples, diagrams, etc.?
- Are the visual aids (slides, etc.) clear and appropriate?
- Are the speakers audible and engaging?
- Is the material presented correct and do the presenters know and understand it well?
- Is the material covered presented in a way that makes it interesting?
- Is the timing well-judged?

Individual report. You should submit you individual written report by 6pm on **Friday 21st March**, the last day of term.

Because you will often be using mathematical symbols and diagrams, we are not specifying a word count. However, the work should be eight to ten sides of A4 paper and, while it does not have to be typed, it *must* be legible throughout: parts of the report that the marker cannot read will be ignored. Stretching the space limitations via use of small margins or small fonts will be penalized in the marking.

The report should *not* be simply a list of questions and answers, or theorems and proofs, though you should include clear and concise statements of key results and clear proofs of them. You should demonstrate your understanding by including passages that explain key concepts, just as a textbook would. You should aim to produce an interesting and informative report that another Discrete maths student who has not seen the worksheets from your topic could learn from. Parts of the report might read like some of the lecture notes, other parts might be more like an article in a maths or science magazine or a chapter of a textbook.

Your report is not expected to cover every question on the worksheets, and indeed there are probably far too many to fit in the report. Your Seminar Leader may suggest you include certain specific things, but otherwise the choice of emphasis is yours. Try to tell a story that hangs together, while explaining as clearly and precisely as possibly.

Whilst you have been working in groups on the problems and presentations, your report must be written by you alone: reports from people in the same group will no doubt be similar, but identical wording is not acceptable.

Your mark does not depend simply on how much of the material is correct. Instead, the marker will use professional judgement, considering all the criteria below. Correctness is important, but a report with a few mistakes but showing insight into the key ideas may receive a better mark than one which has no mistakes, but also little explanation or evidence of understanding.

Marking criteria for the report.

- Demonstrated understanding: including explanations of key ideas, drawing connections between ideas, or using new examples to clarify important notions.
- Correctness: including correct, concise and general statements of results, and valid, clear proofs.
- Technical accuracy: including correct use of symbols and logic.
- Fluency: including correct grammar, and writing at a suitable level to interest and inform your Discrete Maths classmates who have been covering a different topic.
- Structure: including choice and ordering of material and flow between parts of the report.