Week 4 Talk: library research, using MathSciNet and handwritten notes

Preparation

1. Pick a couple suggested references under "Week 4" in egunawan.github.io/writing/resources.

2. Check out (electronic or physical copies of) several of these references from the UConn library or the internet.

3. (Optional) You might want to create a bib item for each reference you check out, and save it in the bib file in your folder `latex3`, so you can easily find it later. If the book or article has been peer-reviewed, you can automatically generate the bib item using MathSciNet.

4. Read the books/articles you have checked out and take notes as you read. Save these pages because you may want to use them for a paper later this semester.

5. If you start reading a section but it is not interesting or you don't understand the content, you may want to switch to a different section of the book or a different reference.

Instructions for submitting *the handwritten notes (at least two pages)*:

- At the top of your notes, write (1) your name, (2) the title of the assignment, (3) a short description (1–2 sentences) of your notes, and (4) the references you read for your notes.

- Submit your handwritten notes at the beginning of class. Alternative ways to submit:

    - If you prefer to write your notes in LaTeX, let me know.
    - If you plan to be absent, inform me ahead of time and you can submit the notes early.
    - If you cannot make it to campus, scan your notes to a `.pdf` file using phone scanner apps, for example, CamScanner.

Suggestions for items that can be included in your notes

- detailed computation (possibly more details than what is given in the textbook/article)

- motivation, connection to other areas of mathematics or natural/social science, possible answers to "why do we care?"

- precise definitions that are needed to discuss the concepts, applications, theorems, and questions that you want to write about

- examples (start with easy-to-understand examples!)

- proven facts, *e.g.*, the number of ways to choose a five-people committee out of 12 students is $\binom{12}{5}$.

- unsolved problems

- historical facts: when and where questions were introduced/ people started studying them/ theorems were proved and who are the individuals who made significant contributions to this area