Problem Set 0: Getting Started

Submit your responses as a single PDF file on the canvas site before **8:29pm** on **Thursday, 16 January**.

This problem set is to get you familiar with the tools you will used in this class to create and submit your assignments, as well as to learn something about the students in the class and ensure everyone knows what they should about the course and honor expectations. This problem set is **required but not graded. You must submit it and answer Problems 4 and 5 correctly to be in the course.**

Collaboration and Resources Policy
For this assignment, you may discuss the questions with anyone you want (including other students in this class), but must write your own answers. You can help and get help from others on any problems using overleaf, latex, or the canvas submission.

Instructions

Part of the purpose of this assignment is to get you familiar with using overleaf to generate a PDF file which you will be expected to do for the problem sets in this class. Follow these steps:

1. Visit https://www.overleaf.com and register for an Overleaf account (if you don't already have one). UVA has a site license to Overleaf, so if you register with your @virginia.edu email address you will have full access to all the Overleaf features for free.

2. After logging in, open this read-only Overleaf project located at https://www.overleaf.com/read/UPDATE, then select the "Menu" button at the top-left, and then select "Copy Project". You will have an opportunity to rename the project, and then Overleaf will create a new copy of the project which you can edit.

3. Open your copy of the project and in the left side of the browser, you should see a file directory containing ps0.tex. Click on ps0.tex to see the LaTeX source for this file, and enter your solutions in the marked places. (You will also see the uvatoc.sty file, a "style" file that defines useful macros. You are welcome to look at this file but should not need to modify it.)

4. The first thing you should do in ps0.tex is set up your name as the author of the submission by replacing the line, \submitter{TODO: your name}, with your name and UVA id, e.g., \submitter{Grace Hopper (gmh1a)}.

5. For each problem, there should be clear directions about how to provide your answer. Follow these closely—we will be using a mix of automated and human grading and the automated grading tools assume you follow these directions.

6. To generate the PDF file, click the green "Recompile" button.

7. Before submitting your ps0.pdf file, replace the second line in ps0.tex, `\usepackage{dmt}` with `\usepackage[response]{dmt}` so the directions do not appear in your final PDF.

8. Download your complete ps0.pdf file, and submit it using submit it.

Problem 1 *Habits*

Read *Habits of Highly Mathematical People* by Jeremy Kun (https://uvadmt.github.io/docs/habits.pdf or https://medium.com/@jeremyjkun/habits-of-highly-mathematical-people-b719df12d15e) and answer these questions about it.

For each of the six habits in Kun's essay, check one of the boxes to indicate your view of this habit (and whether or not you have it).

The example below shows you want it should look like after you select an item.

(Demo) Don't eat twinkies.

- ◯ I agree with this and think I am pretty good at it already.
- ◯ I agree with this and want to get better at it.
- ✓ I disagree with this and don't want to do it.
- ◯ I don't understand what this means.

To indicate your answer in the template, change the appropriate *unselecteditem* to *selecteditem*. There are no right or wrong answers here, we just want you to think about the habits in the essay and whether or not you have them or want to have them.

(a) 1. Discussing definitions

- ◯ I agree with this and think I am pretty good at it already.
- ◯ I agree with this and want to get better at it.
- ◯ I disagree with this and don't want to do it.
- ◯ I don't understand what this means.

(b) 2. Coming up with counterexamples

- ◯ I agree with this and think I am pretty good at it already.
- ◯ I agree with this and want to get better at it.
- ◯ I disagree with this and don't want to do it.
- ◯ I don't understand what this means.

(c) 3. Being wrong often and admitting it

- ◯ I agree with this and think I am pretty good at it already.
- ◯ I agree with this and want to get better at it.
- ◯ I disagree with this and don't want to do it.
- ◯ I don't understand what this means.

(d) 4. Evaluating many possible consequences of a claim

○ I agree with this and think I am pretty good at it already.

○ I agree with this and want to get better at it.

○ I disagree with this and don't want to do it.

○ I don't understand what this means.

(e) 5. Teasing apart the assumptions underlying an argument

○ I agree with this and think I am pretty good at it already.

○ I agree with this and want to get better at it.

○ I disagree with this and don't want to do it.

○ I don't understand what this means.

(f) 6. Scaling the ladder of abstraction

○ I agree with this and think I am pretty good at it already.

○ I agree with this and want to get better at it.

○ I disagree with this and don't want to do it.

○ I don't understand what this means.

Problem 2 *Can you read the syllabus?*

According to the course syllabus (https://uvadmt.github.io/syllabus/), what should you do if you wake up with a fever on a day when we have a test in class:

◯ Come to class but try to sit away from other students to avoid making anyone else sick.

◯ Don't come to class and send email to my instructor.

◯ Submit the Extension Request Form.

◯ Use my discrete math skillz to break into Canvas and forge a message saying the test is canceled.

Problem 3 *Discoursing Concordantly in Discord*

Everyone in the class should have joined the course Discord (https://uvadmt.github.io/discord/) and completed the UVA authentication step. Once you have done this, post a message in the *[Section]/#introductions* channel introducing yourself to the class. You can just say something like, "Hi there, call me Alice", but feel free to say something more interesting to introduce yourself to your classmates and the course staff.

Check the box below to indicate that you have done this.

◯ Yes, I have sent a message to the *#introductions* channel for my section.

◯ No, I haven't done this. Explain why in the box below:

Problem 4 *Honor Expectations*

Which of the following is expected of students in this class? (Select *all* of the choices that apply.)

☐ I should not lie, cheat, or steal.

☐ I will be open minded and curious.

☐ I will provide useful feedback.

☐ I will wait until I am super frustrated before I ask for help.

Problem 5 *Course Pledge*

Do you understand and agree to everything in the Course Pledge (https://uvadmt.github.io/pledge/)?

○ Yes (making this the selecteditem is considered signing and agreeing to the pledge).

○ I have some concerns, questions, or disagreements. If you check this option, describe your concerns in the box below:

End of Problem Set 0.
Follow the instructions to complete the assignment and submit your PDF.