

MATH 277: OPTIONAL HOMEWORK 9 THE “BIG PICTURE ASSIGNMENT”

DUE TO M. MALLIARIS BEFORE THE END OF THE COURSE

You may recall from the syllabus that course policy is to count the best 7 homework scores out of the quarter’s assignments. This sheet describes a “ninth assignment” which you may choose to do if you would like to replace one of your previous HW scores; if you need to make up an assignment; if you have not already turned in 7 assignments; or simply because it provides an excellent review for the final exam.

I hope you will find it an enjoyable departure from the usual problem set. I expect most grades for this assignment will be clustered between 21-25, see below.

Please turn this in directly to me on or before the last day of the course.

The assignment. Write a couple of pages for a mathematically literate audience (peers, graduate students) who have not necessarily been exposed to logic. Explain, based on your understanding in the course so far, the main results and themes of what we have covered. You might give examples from class or from your own experience. You might discuss how these themes relate to other mathematical ideas or structures you have encountered (for those of you who have thought about these ideas from outside mathematics, such themes would be appropriate to bring in too). The goal is to clearly and accurately explain what we covered this quarter: that is, to give a preliminary description of what this fairly different area of mathematics is, what the main sorts of results are, what questions and problems it handles. What could your reader expect to learn from taking such a course?

What this assignment is not. This is a chance for you to summarize and reflect, not to give the final word on the subject. You don’t need to write from a place of authority about “the aims of logic” (this may not be appropriate after a quarter), nor is this the place to explain how much you loved topic X; leave value judgments out of it, though you can certainly point out some results are more or less important overall. Rather, be descriptive, aiming for explanation, thoughtfulness, and mathematical accuracy. This assignment requires no research beyond having attended class.

Details. Target length is about 500 words, which is just over a page typed single spaced (for reference). However, you may take as much or as little space (within reason) as you feel you need.

Grading. As usual, grading is out of 25 points. Since the main purpose of this assignment is for you to reflect on themes of the course prior to the final exam, I will award 21/25 to any accurate, reasonably well-organized and well-motivated synopsis of what has been done in the course so far. Up to four additional points will be given for thoughtful, mathematically sophisticated discussion which goes beyond a simple record of results.