## MATH 287 HOMEWORK 0

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Date: August 27, 2021.

- Exercise 1. (1) What is your "official" name as on the class roster?
  - (2) What name do you like to go by in class?
  - (3) How is your name pronounced?
  - (4) What pronouns do you prefer (this could be she/her/hers, he/him/his, they/them/theirs, or other)?
  - (5) What is something that you are excited to learn in this class?
  - (6) What is something that you are concerned about in this class?
  - (7) Is there anything else you would like me to know?

## Answer.

- (1) My "official" name is Andrew Moore.
- (2) Please call me Andrew.
- (3) It's pronounced "and-roo more".
- (4) I use he/him/his pronouns.
- (5) I'm excited to have a course to focus on the writing of mathematics.
- (6) I've been intimidated at times when encountering proofs in textbooks, and hope I can build confidence in reading and writing them.

(7) I'm currently a non-degree student, but completed a BA in Psychology in 2013. I got involved with academic research under my advisor, and got really interested in statistics. I was intimidated by math in HS and early in college, but I've gained appreciation for the subject over time, and have enjoyed making up for lost time. My goal is to pursue a masters degree in applied math or stats. Assuming I do well in this course, I hope to join you in the spring for Real Analysis!

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Exercise 2. Have you used  $T_{EX}$  or  $P_{EX}$  before?

Answer. Sort of? I'm used to writing reports using RMarkdown. There's an R package called knitr that can compile markdown syntax into PDFs, and you can make use of LaTeX formatting/commands. I think this will be the first time I'll be making heavy use of equation formatting from LaTeX.

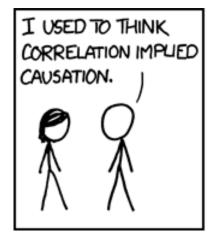
Exercise 3. Simplify  $(x+y)^2 - (x-y)^2$ .

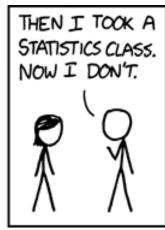
Answer. 
$$(x+y)^2 - (x-y)^2 = x^2 + 2xy + y^2 - (x^2 - 2xy + y^2) = 4xy$$
  $\diamond$ 

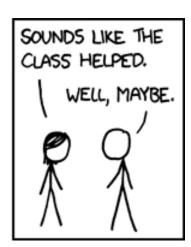
Exercise 4. Please share a math joke.

## Answer.

A classic xkcd comic.







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