Discretionary Note

Anish Krishna Lakkapragada

IF YOU USE THIS FILE TO CHEAT, YOU ARE NOT ONLY STUPID BUT YOU ARE CHEATING YOURSELF OUT OF THE ABILITY TO FALL IN LOVE WITH MATH. Furthermore, I am not smarter than you and my solutions did not always get a perfect score.

CONTENT STARTS ON NEXT PAGE.

To access the general instructions for this repository head here.

S&DS 241/541
Problem Set 6
due Oct. 9, 2024, 11:00 pm via Gradescope

Guidelines

- When you can simplify your results using only arithmetic calculations, please do so. When your results involve π, e, logarithms, or square roots, it's fine to express them as formulas (but if there are easy simplifications that can be made, please simplify). Your final results should not involve integral or derivative signs (you'll need to integrate or differentiate some functions for this problem set). As always, please show your steps.
- When a problem asks you to find a CDF or PDF, please specify the support.
- Please write legibly and explain your reasoning. For full credit, your answer and your reasoning need to be not only correct, but clear to the grader.
- Late problem sets will not be accepted unless there are extenuating circumstances (e.g., an illness or family emergency). Undergraduates must obtain a Dean's excuse for any late submission. Graduate students must obtain permission before the deadline. (As mentioned in the syllabus, we'll drop your lowest homework score.)
- You're encouraged to discuss the homework with classmates (this can be a good way to learn), but you must write your solutions independently and in your own words.

Problems

1. Chapter 4, Exercise 31, part (a) only.
2. Chapter 5, Exercise 1.
3. Chapter 5, Exercise 5.
4. Chapter 5, Exercise 8.
5. Chapter 5, Exercise 14.
6. (Not graded) On a separate page, please write your name and acknowledge anyone who helped you or discussed the problem set with you (other than the instructor, TFs, and ULAs), as well as any written resources you consulted (other than the textbook and other resources on Canvas). If you don't have any acknowledgments to make, please write "I worked independently."