STAT 150 HOMEWORK #9

SPRING 2024

Due Friday, April 5th, at 11:59 PM on Gradescope.

Note that there are *Exercises* and *Problems* in Pinsky and Karlin. Make sure you read the homework carefully to find the assigned question.

1. Pinsky and Karlin, EXERCISE 7.1.3

2. Pinsky and Karlin, EXERCISE 7.3.3

3. Pinsky and Karlin, Problem 7.3.1

4. Pinsky and Karlin, Problem 7.3.3

5. Pinsky and Karlin, Problem 7.3.4

6. Pinsky and Karlin, Problem 7.3.5 (Recall that the Poisson process has $N(0) = 0$, so there is no bird at the far left.)

7. Durrett, Exercise 3.22 (In part (b), Durrett means to say "by thinking about a rate λ Poisson process in which...". Do not worry about a completely rigorous justfication for part (b). Try to understand where the answer you got from part (a) could be coming from using Durrett's suggestion of the Poisson process.)

8. Durrett, Exercise 3.24.