

STAT 150 HOMEWORK #8

FALL 2021

Due Monday, November 8th, at 11:59 PM on Gradescope.

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

1. Pinsky and Karlin, Problem 6.3.3
2. Pinsky and Karlin, Problem 6.3.4
3. Pinsky and Karlin, Problem 6.4.4
4. Pinsky and Karlin, Problem 6.4.6
5. Pinsky and Karlin, Problem 6.5.2
6. Pinsky and Karlin, EXERCISE 6.6.1 (Also do the additional problem below)
 - (c) On average, how long are the gaps between when the system has two functional components? (Hint: use part (b) and the limit theorem stated in class relating the mean return time to the limiting distribution).
7. Pinsky and Karlin, Problem 6.6.2