

STAT 496
Homework 2 Problems
due Wed. Sept. 21

3 Problems. Show all work.

Please follow the Lab report directions off the homework web page for R Problems.

Please work in HW Groups!

Indicate the leader for each problem. Since there are 3 problems, be sure to switch leaders on Problem 1 and 2.

1. p. 19: 2.1

2. p. 19: 2.3

For part (c), you just need to use a small number of time points, $n=5$. You do not need to use R.

3. Consider the model from class: $Y_t = 0.25 + (\cos \pi t)e_t$ where e_t is a sequence of i.i.d $N(0, \sigma^2)$ random variables. Simulate the random process and make a time series plot. Use $n = 100$, and a standard deviation of one. Repeat several times. You should simulate 4 time series using 4 different `set.seed()` function values. You can use the 2×2 plotting region for this problem.