PubH 7445: Homework Assignment 1

September 11, 2017

Due Wednesday, September 20, 2017

Please hand in a print-out of your answer and R code, and also email your R code to me (ca-vanr@biostat.umn.edu). These questions are mostly from Verzani's Simple R notes. All datasets can be obtained from the `datasets` package.

1. Problem 2.3 from Verzani's notes.

2. Problem 2.6 from Verzani's notes.

3. Problem 3.4 from Verzani's notes but use the faithful and iris data sets (compute univariate summaries for all variables in these data sets).

4. Problem 3.6 from Verzani's notes.

5. Problem 4.2 from Verzani's notes.

6. Using the built in data set `DNase`, examine the association between concentration and density. Make a graphical summary that also shows the effect of `Run`. Use linear regression to determine the impact of `Run` and `Concentration` on `Density`.

7. Using the `npk` dataset, make side by side boxplots of the `yield` as it depends on each of the 3 factors.

8. Porblem 6.3 from Verzani's notes.

9. Problem 6.8 from Verzani's notes.

10. Problem 6.9 from Verzani's notes.

11. Problem 7.3 from Verzani's notes.

12. Problem 7.5 from Verzani's notes.

13. Problem 7.10 from Verzani's notes.