

# UCLA Department of Statistics

## STATS 402 Homework 9

Instructor: Jingyi Jessica Li

Due date: Thursday, November 29, 2016 at Sivash's office hours

Please staple your homework and write down your name and UID clearly.

Please answer the following problems in “An Introduction to Statistical Learning” Chapter 6. For data analysis questions, please use **R**. For relevant **R** codes, please submit them by the deadline to the CCLE website at <https://ccle.ucla.edu/course/view/16F-STATS402-1?section=0>.

Please set the random seed to 1 in your simulations and cross-validations.

- 2. (a)-(b).
- 3. (a)-(d).  $RSS = \sum_{i=1}^n (y_i - \hat{y}_i)^2$ .
- 4. (a)-(d).
- 6.
- 8.
- 9. For (a), please use the first 500 observations as the training data, and the remaining 277 observations as the test data.
- 10.
- 11.