CMDA 4654 – Spring 2016
Homework 1
Due: Thursday 2/25/16 at 11:55pm

<u>Instruction</u>
- Submit a single R script and a companion PDF file containing the outputs of the R codes and/or your answers to the following problems to your scholar dropbox. Name your files with the *Lastename-Firstname* format, e.g. *Davanloo-Sam.pdf*.
- The exercises below refer to the end of the chapters exercises from the text book "*An Introduction to Statistical Learning*" by James et al. (available online – see syllabus).
- Read section 2.3 from the text book and the *basics.R* file which is posted on the scholar.

1. (10 pts) Exercise 2.4 – Problem 1
2. (10 pts) Exercise 2.4 – Problem 2
3. (10 pts) Exercise 2.4 – Problem 5
4. (20 pts) Exercise 2.4 – Problem 8
5. (10 pts) Exercise 3.7 – Problem 1
6. (10 pts) Exercise 3.7 – Problem 3
7. (10 pts) Exercise 3.7 – Problem 4
8. (10 pts) Exercise 3.7 – Problem 5 (**hint**: *customize the proof of the least-square parameter estimate of multiple linear regression for the simple linear regression*)
9. (20 pts) Exercise 3.7 – Problem 9
10. (20 pts) Exercise 3.7 – Problem 13

Total pts = 130