

# Homework 2

Stat 151A, Spring 2014

Due Thursday, February 20th

1. (15 points) Problem 9.6 in Fox
2. (40 points) Problem 9.14 in Fox. Note that all the values you need for (c) and (d) are given in the section 5.2.
3. (15 points) Show that in the linear model, the square of the (sample) correlation between the response values  $(y_1, \dots, y_n)$  and the fitted values  $(\hat{y}_1, \dots, \hat{y}_n)$  equals the coefficient of determination,  $R^2$ .
4. (15 points) Problem 11.1 in Fox