Stat GR 52015, Fall 2017

Assignment #7: Due November 20

1. Chapter 8, problem 6.
2. Chapter 8, problem 42.
3. Chapter 8, problem 43.
4. Chapter 10, problem 5.
5. Chapter 10, problem 9, a, b, c, d, g.
6. Consider linear regression model of y on covariates x_1, x_2, ..., x_p. Let $\hat{\beta}$ be the least-squares estimate and let $\hat{\beta}_{(i)}$ be the estimate with observation i removed. Show that $\hat{\beta} = \hat{\beta}_{(i)}$ if and only if observation i lies precisely on the fitted regression line.