Math 186: Homework 3
Due Friday, February 15

This assignment covers Sections 2.6-2.7 and Chapter 3 in the Utts and Heckard text and is designed to address the following learning objectives:

- To understand outliers and how to quantify them

- To understand the interpretation of standard deviation in general, and also in the context of bell-shaped distributions

- To understand the basic principles involved with simple linear regression

- To correctly interpret scatterplots and infer general characteristics of relationships between two quantitative variables with them

- To reinforce the interpretations of regression equations (slopes and intercepts), correlations and R^2 values

- To understand when and how regression can be used (to avoid pitfalls like extrapolation, trying to infer causal relationships, and using it to summarize non-linear relationships)

Provide solutions to the following problems from Chs. 2 and 3 the text:

Ch. 2 #86 (feel free to use a calculator or software), 88, 90, 96

Ch. 3 #2, 6, 13, 27, 28, 32, 38, 44 (for (b), read top of p. 83 in text), 51, 72