STATS 500 - Homework 9

Due in class on Wednesday, December 2

Chapter 14, question 2 (page 221) – slightly modified

Using the `infmort` data, find a simple model for the infant mortality in terms of the variables income and regions (do not include oil). Be alert to transformations and unusual points. Interpret your model by explaining how to interpret the estimates of the regression parameters.

Hint: There are missing values - should simply delete them for this problem. Also, you should consider transformations on both mortality and income – the goal is to have there be a relatively linear relationship between the transformed income and transformed mortality (for each region). For this, consider appropriate transform on predictor variable, and use Box-Cox to help find the appropriate transformation on the response. Finally, in addition to your interpretation, make sure to provide some diagnostics assessing the goodness of your final estimated model

Solutions should not exceed 4 pages.