

Homework 1.

1. Chapter 1 (starting from page 39): 4, 9, 12.
2. Obtain the data set "food" from the package "PoEdata".
 - (a) Show the first and the bottom six rows of the data.
 - (b) Obtain a scatter plot for each variable.
 - (c) Obtain a boxplot for each variable.
 - (d) Obtain a histogram for each variable.
 - (e) Obtain a scatter plot for `food_exp` against `income`.
3. Suppose $Y \sim \text{Binomial}(100, 0.25)$.
 - (a) Calculate $P(Y \leq 40)$ using `pbinom` function in R or other programming language.
 - (b) Approximate $P(Y \leq 40)$ using the Central Limit Theorem.