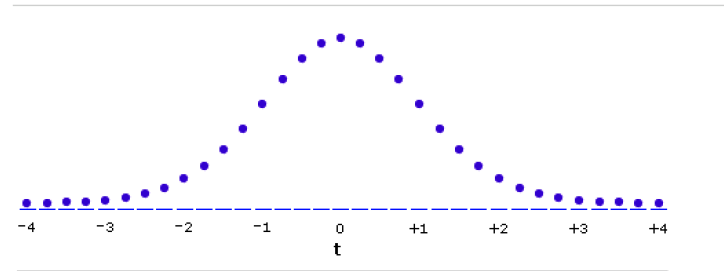
Minoo Ahmadi

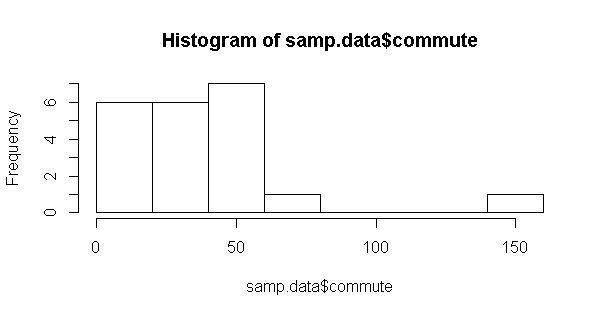
Homework 1

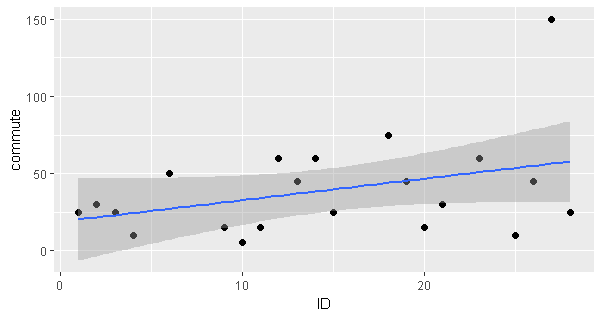
Part I

1. A mean of 35.17 (SD = 29.32) was found for the population. A median of 27.5 indicates a right-skewness in the data, which is probably due to the maximum value of 150 for the subject with ID = 27. The variance is 860.15.
   1. H0: , H1:
   2. T-distribution



Below are the histogram and scatterplot of the sample:





* 1. Using an online t-table, the critical t-value for a two-sided test at alpha level of .05 is 2.086.
  2. t(20) = 5.56, which is way larger than the critical t-value. (p<.001).
  3. A two-sample t-test was performed to compare the sample mean commuting time in the sample to a hypothesized population mean of 30. Using an alpha level of 0.05, the sample mean of 39.04 (SD = 32.15) was found not to be statistically significantly different from this value (t(20) = 1.28, p > 0.05 (two-tailed)), suggesting that the mean commuting time in the sample is not significantly different from 30 minutes.

1. asgfa