**Assignment 5 Template**

**LAST NAME: Lawson**

**FIRST NAME: John**

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**Problem 1: Fill in the information below based on your data which were generated using your ID number as the seed for the random number generator.**

**Insert the table of observed and expected frequencies here.**

**Category.1 Category.2 Category.3 Category.4 Category.5 Category.6**

**Observed 7 18 38 25 54 8**

**Expected 25 25 25 25 25 25**

**The hypothesis of interest is that the data arise from a Multinomial model with equal probabilities.**

**The observed value of the likelihood ratio statistic for testing this hypothesis**

**= 67.11506**

**The degrees of freedom for the Chi-squared distribution = 5**

**The p-value = 4.077849e-13**

**since the p value is very small and less than 0.05, the hypothesis is likely true.**

**The observed value of the Pearson Goodness of Fit statistic for testing this hypothesis = 66.88**

**The degrees of freedom for the Chi-squared distribution = 5**

**The p-value = 4.563017e-13**

**since the p value < 0.05, the fit is very good.**