

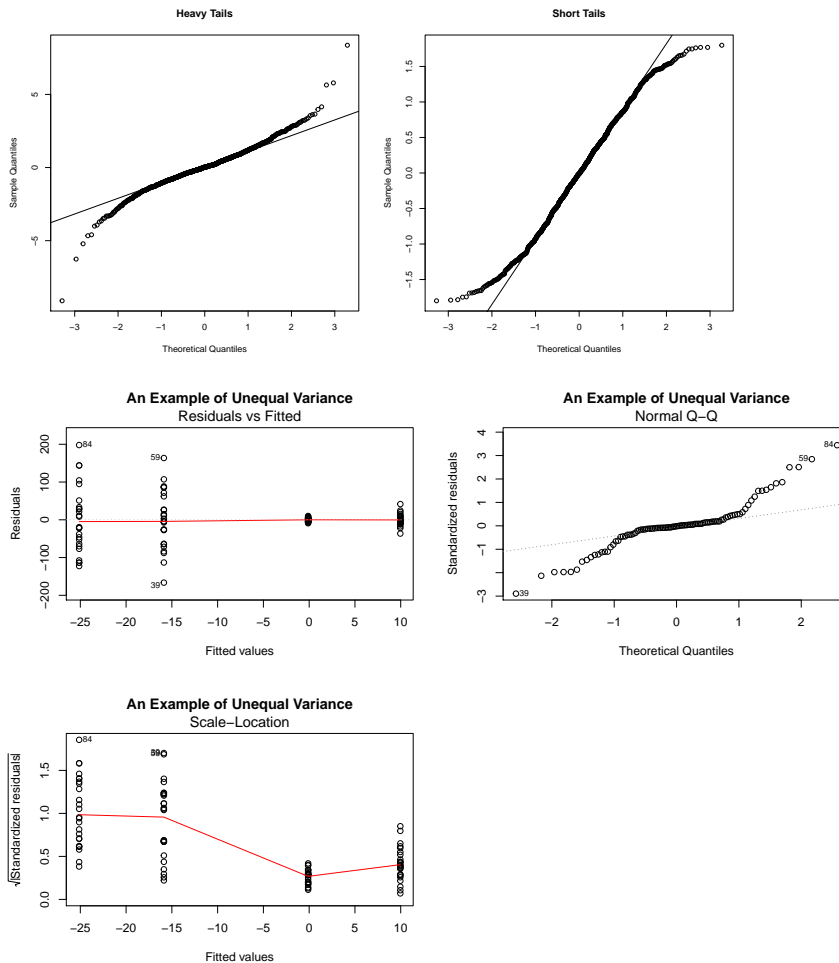
STAT 217: Worksheet 4

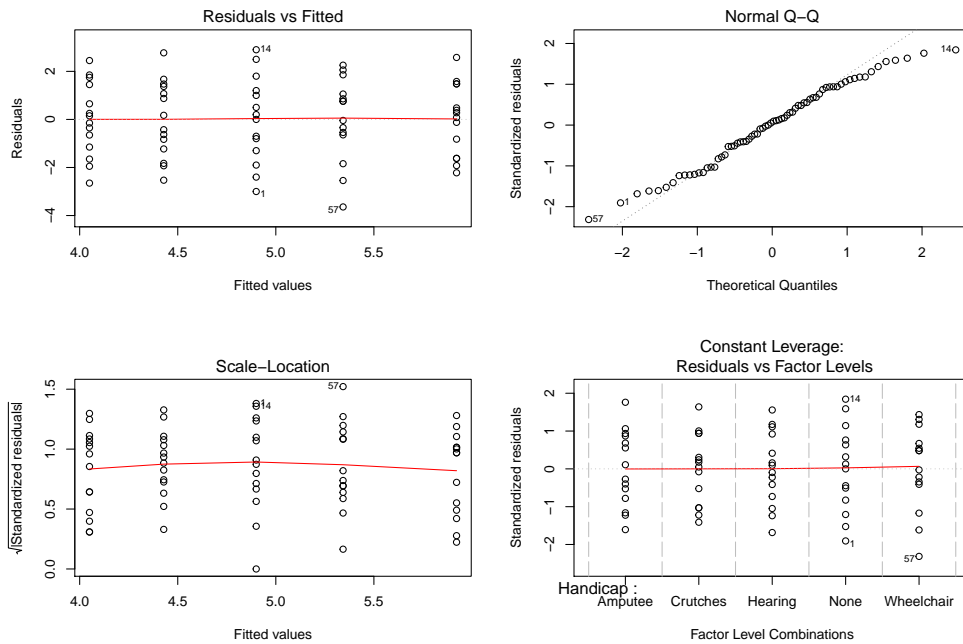
Wal-mart executives want to conduct a study to see if the stress levels of their employees vary by age. The employees were classified into age groups (less than 40, 40 to 55, and above 55) and were then asked a series of questions to evaluate their stress level on a daily basis. The response was a 'stress score'. This was a nationwide survey conducted across all Wal-Marts in the United States. The employees in the study were randomly selected. Identify at least three possible violations of the independence assumption.

1.

2.

3.





```
## Analysis of Variance Table
##
## Response: Score
##      Df Sum Sq Mean Sq F value Pr(>F)
## Handicap  4   30.5    7.63    2.86  0.03
## Residuals 65  173.3    2.67
```

1. The above residual plots are from the handicap data. Assess the assumptions for a one-way ANOVA test.

2. Given the ANOVA table, write a conclusion.