

Stat 205 Homework 1

Consider the data of 2.2.4 (p. 39). The data are counts of the number of dendritic segments coming out of $n = 36$ nerve cells; they are in a form to be loaded into R on the course webpage. On *one side of one sheet of paper* include a boxplot and histogram of the data. I want you describe the data set using the terms we used in class. Please word-process your writeup.

Be sure to include the following:

- A qualitative description of the data based on the histogram, including modality, symmetry, and skew.
- Which, if any, observations are outliers as defined in class; the boxplot is useful here.
- Measures of central tendency (mean and median) and note whether the mean is pulled further than the median in the direction of skew (if the distribution is skewed).
- Report the five-number summary, the IQR, and the range. Note that you can obtain Q_1 as `quantile(segments, 0.25)` and Q_3 as `quantile(segments, 0.75)`. You may also use `min(segments)` and `max(segments)`.