STA13 - Week 3 Study Objectives

You should be able to

1. Compute and understand the formulas for the sample mean, median, trimmed mean, variance (or standard deviation), and interquartile range for numerical data.
2. Draw conclusions about skew by comparing the mean and median.
3. Compute and understand the formula for the sample proportion of successes for binary data.
4. Extract the five number summary (minimum, lower quartile, median, upper quartile, maximum) from a boxplot. Also, compute the five number summary and draw the boxplot for numerical data.
5. Identify outliers.
6. Use z-scores, the empirical rule, and Chebyshev's Rule to draw conclusions about the relative standing of an observation in a data set and the expected proportion of observations in certain data ranges (e.g. within 2 standard deviations of the mean).
7. Draw conclusions about the sign and approximate size (weak, moderate or strong linear relationship) of the sample correlation coefficient from a scatter plot.
8. Compute and understand the properties of the sample correlation.