Quiz #3

To help illustrate the tools presented in this chapter, we apply many of the entries to the HELP data.

Summary statistics and exploratory data analysis

1. Read in the HELP data set using the CSV file on Bb
2. Calculate the mean, median, range, standard deviation, variance, minimum, quartile 1, quartile 3, max, skewness, kurtosis, and number of missing values of the `cesd` variable
3. Also calculate the decile values of the `cesd` variable
4. Generate a histogram of `cesd` (I know we haven't talked about it yet, google 'histogram in [SAS] | [R]" and see if you can figure it out.

Bivariate relationships

1. Calculate the correlation between CESD and MCS and PCS (mental and physical component scores).

Contingency tables

1. Display the contingency table of homeless at baseline by gender, calculate the observed odds ratio, and assess association using the Pearson χ^2 test and Fisher's exact test. Hint: In SAS, this can be done with one call to proc freq.

Two sample tests of continuous variables

1. We can assess gender differences in baseline age using a t test and nonparametric procedures.