1. Load the DartPoints data set. We want to see if there is a difference in Length between Darl and Pedernales points. Do this in four steps:
   a. First go to Statistics | Summaries | Shapiro-Wilk Test of normality and run the test to see if Length is normally distributed. If it is, we can use the standard t-test. If not, we should use a non-parametric test such as Wilcoxon (aka Mann Whitney). In fact, the test is very conservative and often finds that the data are not normal when they are close. For this exercise run both the t-test and the Wilcoxon test. Plot the Quantile comparison plot for Length to see how closely it follows a normal distribution.
   b. Next go to Statistics | Variances | Two- variances F-test to see if the variance for Length is the same for Darl and Pedernales points. This does not matter for the Wilcoxon test, but it does make a difference when we use the t-test. If the variances are equal, we can use one form of the t-test (pooled variances), but if they are not we need to use a different form (separate variances).
   c. Third, select Statistics | Means | Independent samples t-test and select Name as the Group and Length as the Response. Select one of the choices under Assume equal variances depending on the result of the F-test.
   d. Finally, select Statistics | Nonparametric tests | Two-sample Wilcoxon test and select Name as the Group and Length as the Response. Summarize your results from all four steps.

2. Use the data set Howells3Pops and follow the same procedure to compare Males and Females in terms of BBH and ZYB. Now create a new variable that is a ratio between BBH and ZYB. Go to Data | Manage variables in active data set | Compute new variable. Call the new variable Shape and enter the expression: BBH/ZYB. Now use this new Shape variable to compare Males and Females. Produce a boxplot of Shape by Sex and summarize your results.

3. Use the data set ErnestWitte to conduct three difference of proportions tests. First test the hypothesis that adults and children show no difference in the likelihood of having grave goods (variables Adult and Goods). Then check to see if adults show any difference in the presence of any pathology (Adult and Pathology). Finally look for differences in presence of pathology by sex (Sex and Pathology). Summarize your results.

4. Use the Snodgrass data set to test for a difference of proportions between Inside and the presence of ceramics in the house. You will have to construct a new variable, Sherds that is equal to factor(ifelse(Ceramics>0, "Present", "Absent")).
Once you have created this variable, select the Snodgrass data set again (even if it is already selected) and run the difference of proportions test.

5. Use your own data to run a t-test, Wilcoxon test, or difference of proportions test.