Technology Tips for Hypothesis Testing

TI-84 Plus (may work on TI-84 and TI-83 as well):

Running an ANOVA test with data

1. Enter your data in columns (for example, L1, L2, L3, etc.) by going to Stat, and Edit
2. To perform the test, go to Stat, Tests, ANOVA(
3. Enter the columns for which the data is entered separated by columns (for example ANOVA(L1,L2,L3) if you have data in the columns L1, L2, L3.
4. Your output should include the value of the F-statistic, the p-value. The factor list includes the degrees of freedom (for the numerator), the SSTR (SS) and MSTR (MS). The error list include the degrees of freedom (for the denominator), the SSE (SS) and the MSE (MS).

Finding the p-value for the two sample proportion test

1. Go to Stat, Tests, 2-PropZTest
2. Enter the number of success for the first sample, the sample size for the first sample, the number of successes for the second sample, and the sample size for the second sample. Choose the form of the alternative hypothesis and then choose Calculate.
3. Your output should include the z-score, the value for p, and the proportion of successes for each of the samples as well as the pooled estimator. Make sure to distinguish between these “p’s.”

Finding the p-value for the chi-squared Goodness of Fit test

1. Go to Stat, Tests, χ² GOF-test
2. Enter name of the list that contains the observed values and the name of the list that contains the expected values. Enter the degrees of freedom and then choose Calculate.
3. Your output should include the χ²-score, the value for p, the df, and the list of values of the Squared Difference Divided by the Expected Frequency (denoted CNTRB on your calculator). You will need to use the arrow button to scroll through the values in this list.

Comments:

1. If your p-value is really small, the calculator may display it in scientific notation. Make sure to write down you p-value using decimal notation.
2. The calculator will draw the area under the curve for the given p-value by picking Draw under the statistical test. If you get an error message, try resetting the memory back to the defaults by selecting 2nd, Mem, and choosing Reset. Choose Defaults and Reset. Try drawing the graph again and it should work.