Confidence Intervals and Hypothesis Testing
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**Two-Sample t Test:**
There are several ways to use the Two-Sample t Test in Minitab to quickly determine confidence intervals and T-values. Depending on whether you have the actual data or a summary, slight modifications to your procedure can make things much easier than trying to do it out by hand. To get to the Two-Sample t Test, go to

Stat -> Basic Statistics -> 2-Sample t.

You then have the option of looking at samples in one column, samples in two columns, or summarized data. If you are given summarized data, simply enter the sample size, mean, and standard deviation of each data set. If you are given actual data, you can choose whether to compare two sets using the samples in different columns option, or you can have it differentiate between subscripts if you have a single column of data and then another column specifying what the result was. Note that if you click on options, you can change the assumed confidence level, test difference, and also the alternate hypothesis. Make sure that you note whether you should have the “Assume equal variances” box checked, as this could change your results.

**Paired t Test:**
The Paired t Test is performed very similarly to the Two-Sample t Test. To get to it, go to

Stat -> Basic Statistics -> Paired t.

Again, you have the option to compare columns of data that are given to you or to simply enter the summary of a data set. Under the options menu you can change the confidence level, test difference, and the alternate hypothesis.

**Two Proportion Test:**
To do the Two Proportion Test, again go to

Stat -> Basic Statistics -> 2 Proportions.

As we’ve been seeing, you have the options to input columns of data, summarized data, or a column of data with a second column of subscripts determining its event.

**Two Variances Test:**
To do the Two Proportion Test, click on

Stat -> Basic Statistics -> 2 Variances.

As above, you can pick different options and enter in different types of data. Do so as the problem requests.

**Assignment:** After you have solved the 5 problems due Wed. November 30, select 3 and re-compute the results using Minitab. Compare Minitab’s answers to yours. Explain any discrepancies.