Hand in hard copy on December 4, 2014, by 1:00 pm at the latest.

In each of the problems below, use JMP to do all the analyses and include the relevant output with your written solutions to each problem. The "relevant output" includes a printout of the dataset and a printout of any numeric or graphic result that you make reference to in your solution. One page, back and front, is the maximum for this extra credit assignment, plus the JMP output that you attach.

1. Consider the Lead Levels Data on my website. Open the file in JMP and since this is data based on a matched pairs design, compute the differences between the levels of the experimental group (parents work in the battery plant) and the levels of the control group (parents don't work in the battery plant). Then analyze using the paired t – test the corresponding hypothesis at the 5% level of significance and compute a 95% confidence interval for the appropriate parameter. Write a paragraph or two to explain your interpretations of the results of your analyses.

2. One indicator of a person's fitness is their percent of body fat, which can be measured with a special set of calipers. The calipers are placed at three or four different places on the body to measure the amount of skin that can easily be pinched off. The skin-fold measurements are then averaged across the number of different places to provide a measure of the person's percent of body fat. The data set given on my web site called "bodyfat" shows some of this type of data for several men and women who participated in an unsupervised exercise class about 3 times a week for six months. Analyze this data both graphically and numerically to both describe and test for the differences (if any) that you see between men's and women's body fat percentage. Write a paragraph or two to explain your results.