Math 210: Dr. Caldwell Minitab Assignment One
Due: 15 February 2012 (4 pm)

Minitab is on most computers in the labs. Go to the "Start" button, then "All Programs," then find it on the list…

Instructions: Bring this work finished to class on the due date above, folded with your name on the outside just like our quizzes. **Do not e-mail**. Clearly label each part of each problem on your paper. Print just the session window. **Do not print out the data sets.**

The credit given for late assignments will be drastically reduced! So consider submitting it early (in class with any quiz or in my mailbox in the Math/Stat Office).

Simulate three coin flipping experiments by performing the following operations.

a) Randomly generate a column of data in C1 with 12 entries [Calc | Random Data | Integer; with minimum = 0 (tails) and maximum = 1 (heads)].
b) Randomly generate a column of data in C2 with 120 entries as above.
c) Finally, randomly generate a column of data in C3 with 30000 entries as above.

d) Find the relative frequency distribution (empirical probabilities) for C1, C2, and C3 [Stat | Tables | Tally]. Please check both counts (frequency) and percents (relative frequency).

e) Coins should land heads 50% of the time. Did any of your samples have 50% heads? How should the size of the sample affect the percentage of heads? (Note you can type your answer, all three parts, into the session window.)

f) For these data sets C1, C2, C3; calculate the summary statistics. [Stat | Basic Statistics | Display Descriptive Statistics].

g) Look at the Standard Deviations (especially for the large sample) and guess what the theoretical value for the standard deviation should be (it is a simple fraction).