

Math 210: Dr. Caldwell
Due: Monday October 2nd (3 pm)

Minitab Assignment One

Minitab is on most computers in the student labs **and available as a free download:**

www.utm.edu/departments/comstore/downloads/

You may not use the Mac version, it is not Minitab, just a dumbed-down version called “Minitab Express” which is not capable of doing all of these assignments.

Instructions: Bring this work finished to class on the due date above (or earlier), folded with your name on the outside just like our quizzes (or be prepared to lose a point). **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,** just the session window. Never submit another student’s work as your own or allow another to submit yours.

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

First simulate three coin flipping experiments by performing the following operations:

- a) Randomly generate a column of data in C1 with 21 entries [Calc | Random Data | Integer; with minimum = 0 (tails) and maximum = 1 (heads)].
- b) Randomly generate a column of data in C2 with 2001 entries as above.
- c) Finally, randomly generate a column of data in C3 with 200,001 entries as above.

Now analyze your results:

- d) Find the relative frequency distribution (empirical probabilities) for C1, C2, and C3 in one table [Stat | Tables | Tally]. Please check both counts (frequency) and relative frequency (percentages).
- e) Coins theoretically land heads 50% of the time. (i) Did any of your samples have exactly 50% heads (exactly half)? (ii) How should the size of the sample affect the percentage of heads? Your answer should show you thought this through.
- f) For these data sets C1, C2, C3; calculate the summary statistics in one table. [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).