Stat 150 – Remembering Presidents Name: _____

(a) List as many U.S. Presidents as you can in reverse chronological order. In other words, start with the current president, then list that president's predecessor, and so on as far as you can. (Do not cheat by using the internet or any other resource!)

(b) As the list of U.S. presidents is presented, calculate your score for this exercise, which we will define to be the number you identified correctly **before** getting one wrong or out of order.

(c) Once the scores from each member of the class are displayed, find the mean and standard deviation for the data set. Consider our data to be a sample (though obviously not random) of all the students taking Elementary Statistics at PCC this semester.

(d) Use the sample data to calculate a 95% confidence interval for the population mean.

(e) Write a sentence or two interpreting this confidence interval.

(f) How many and what proportion of the sample values fall within this interval? Is this close to 95%? Should you expect this to be close to 95%? Explain why or why not.

This last question is meant to remind you that confidence intervals of this type estimate the value of a population _____. They do not estimate the values of _____ observations in the population or in the sample.

Adapted from: Rossman/Chance Workshop at Rio Hondo College (December 2019)