LIMITS LAB: Submission page

Secretary: _____

Others: _____ _____

_____ _____

Instructions:

Look at POPULATN, in world95.sav

- The data set is for a population of 109 countries on the planet.
- For each case in the population, the number of people in that country (its population) is measured.
- This variable is POPULATN – which is *not* the same as the population (vs. sample) of countries.
- Having fun yet? ☺

Answer the questions below, performing any calculations needed, and put your eleven answers in the eleven numbered blanks provided. You needn't submit any output or other printout(s) from SPSS.

Questions:

What is the mean population size for the population of 109 countries? 1. _____

What is the standard deviation of populations for the population? 2. _____

- *It's not just that it's fun to ask such a question. Well, that & it tests your meddle:*
- *Are you comfortable enough w/ "population" vs. "sample" to hold that distinction in mind while using a different sense of the word "population" at the same time?*

What's the standard error of the population? 3. _____

Within what range do you estimate that 95.44% of sample means will be? 4. _____

- *Hint: You'll need the answers to #1 & #3 above, and table A (or memory, or notes).*
- *Note: This is the 95.44% confidence interval for the mean population for a sample of countries.*

- *Randomly select a sample of ten countries. (DATA – SELECT CASES)*

What is the mean population for that random sample of 10 countries? 5. _____

What is the std. deviation of population for that random sample? 6. _____

If I put all lab groups' sample means into one dataset, what shape would it be? 7. _____

Is this sample unusual (given your answer to Q4)? 8. _____

Calculate and report the sampling error (for n=10 vs. N=109) 9. _____

Calculate and report the standard error (for n=10) 10. _____

If you only had your *sample* (w/ *its* mean & standard error), in what range would you estimate the population mean to be 95.44% of the time? 11. _____

- *You'll need #5 & #10, some (short-term) memory (or Table A), and <u>the</u> formula.*