CA8 - Confidence Intervals and Credible Intervals

Add Instructions...

1 Multiple Choice 4 points

The standard deviation of SAT scores is 100 points. A researcher decides to take a sample of 500 students' scores to estimate the mean score of students in your university. What is the standard deviation of the sample mean?

- ○ 0.20
- ◉ 4.47
- ○ 5
- ○ 100

2 True or False 4 points

A 95% confidence interval is narrower than a 90% confidence interval for the same set of samples

- ○ True
- ◉ False

3 Multiple Choice 4 points

The sample mean, $\overline{x}$ is called a ___ of the population mean μ

- ◉ Point estimate
- ○ Confidence level
- ○ Credibility level
- ○ Interval estimate

4 Multiple Choice 4 points

You have a table of standard normal probabilities that gives you the area under the curve from the left tail to the z-score of interest. When using this type of table, what area under the curve would you use to find the corresponding z-score for the confidence interval of 95%?

- ○ 0.05
- ○ 0.95
- ◉ 0.975
- ○ 2.0

5 Multiple Choice 4 points

Researchers are studying the yield of a crop in two locations. The researchers are going to compute *independent* 90% confidence intervals for the mean yield μ at each location. The probability that *at least one* of the intervals will cover the true mean yield at its location is

- ○ 0.9
- ◉ 0.99
- ○ 0.81
- ○ 0.5