Quiz for Week 12

ⓘ This is a preview of the published version of the quiz

Started: 15 Nov at 15:30

Quiz instructions

Quiz time is from 17.15 to 18.00 of November 08, 2023.

Question 1 — 1 pts

In the construction of confidence interval for μ, if all other quantities are unchanged, an increase in the sample size will lead to a confidence interval whose length is

- (●) narrower
- ( ) wider
- ( ) remained the same
- ( ) unable to tell

Question 2 — 1 pts

Based on an observed random sample, a 95% confidence interval for the population mean μ is computed as $(0.14, 0.44)$. Which of the following statement is **CORRECT**?

- ( ) $P(0.14 < \mu < 0.44) = 0.95.$
- ( ) Since the confidence interval contains 0, with 95% probability μ is equal to 0.
- ( ) $P(0.14 < \mu < 0.44) \geq 0.95.$
- (●) None of the given options

Question 3

1 pts

Let $\{x_1, x_2, \ldots, x_{10}\}$ be the observed values of a random sample from the normal population with unknown mean μ and unknown variance σ^2. Which of the following formula should be used to constructed the 98% confidence interval for μ ?

- ○ $\bar{x} \pm z_{0.01} \frac{\sigma}{\sqrt{10}}$
- ◉ $\bar{x} \pm t_{9,0.01} \frac{s}{\sqrt{10}}$
- ○ $\bar{x} \pm z_{0.01} \frac{s}{\sqrt{10}}$
- ○ None of the given options

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