quiz 18
math2228
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w13nov

name: solution

1 (4 points each). Suppose that 500 reandomly selected alumni of the University of Okoboji were asked to rate the university's academic advising services on a 1 to 10 scale. The sample mean $\bar{x}$ was found to be 8.6. Assume that the population standard deviation is known to by $\sigma = 2.2$.

(a) Ima Bitlost computes the 95% confidence interval for the average satisfaction score as $8.6 \pm 1.96(2.2)$. What is her mistake?

(b) After correcting her mistake in part *(a)*, she states, "I am 95% confident that the sample mean falls between 8.4 and 8.8." What is wrong with this statement?

(a) She used the sample standard deviation 2.2 instead of the sample standard deviation $2.2/\sqrt{500}$.

(b) That confidence interval is for the population mean, not the sample mean.