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Question 4

You are studying a population of peregrine falcons and want to estimate their average wingspan. So you collect a random sample of 12 adult male birds and measure a mean wingspan of 42.6 cm, with a standard deviation of 5.3 cm.

Assume that the distribution of measurements was approximately normal.

(1 point possible)

4a. What is **t-critical** for a **90%** confidence interval? *(Report as a positive value to 3 decimal places.)*

[   ]

[   ]

Answer: 1.796

[Hide Answer]   *You have used 0 of 1 submissions*

(1 point possible)

4b. Calculate a **90% confidence interval** for the mean wingspan for the population of male peregrine falcons. *(Round to 2 decimal places.)*

Lower-bound

[   ]

[   ]

Answer: 39.85

[Hide Answer]   *You have used 0 of 1 submissions*

(1 point possible)

Upper-bound *(Round to 2 decimal places.)*

Help

Answer: 45.35

Hide Answer   *You have used 0 of 1 submissions*

(1 point possible)

4c. If you calculated a **95% confidence interval** for the population mean from the same data, would your confidence interval be narrower or wider than your interval above?

⚪ Narrower

⚪ Wider ✔

Hide Answer   *You have used 0 of 1 submissions*

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