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Quiz 9

Question 1:

Suppose that the owner of a restaurant wants to estimate the number of lobsters served during a typical week. She checks the sales records for a random sample of 16 weeks and finds that the mean number of lobsters sold was 150 per week and sample standard deviation was 12.

- a) With 95% confidence, estimate the number of lobsters that the restaurant owner should stock based on available data. State your assumptions clearly.
- b) What if you wanted a 99% confidence level? How would you revise the interval in part (a)?

Question 2:

Suppose that, from a random sample of 400 registered voters in a city, 320 voters indicated that they would vote in favor of the incumbent party in the upcoming election.

- a) Estimate a 90% confidence interval for the population proportion in favor of the incumbent party.
- b) What is the width of the interval that you estimated in part (a)?