

9. You are given the sample mean and the sample standard deviation. Use this information to construct the 90% and 95% confidence intervals for the population mean. Which interval is wider? If convenient, use technology to construct the confidence intervals.

A random sample of 45 gas grills has a mean price of \$630.10 and a standard deviation of \$57.10.

The 90% confidence interval is (,). (Round to one decimal place as needed.)

The 95% confidence interval is (,). (Round to one decimal place as needed.)

Which interval is wider? Choose the correct answer below.

- ☐ The 95% confidence interval
☐ The 90% confidence interval

10. You are given the sample mean and the sample standard deviation. Use this information to construct the 90% and 95% confidence intervals for the population mean. Which interval is wider? If convenient, use technology to construct the confidence intervals.

A random sample of 50 eight-ounce servings of different juice drinks has a mean of 78.9 calories and a standard deviation of 40.3 calories.

The 90% confidence interval is (,). (Round to one decimal place as needed.)

The 95% confidence interval is (,). (Round to one decimal place as needed.)

Which interval is wider?

- ☐ The 95% confidence interval
☐ The 90% confidence interval

11. People were polled on how many books they read the previous year. How many subjects are needed to estimate the number of books read the previous year within one book with 95% confidence? Initial survey results indicate that $\sigma = 11.2$ books.

A 95% confidence level requires subjects.

(Round up to the nearest whole number as needed.)