

4.16 Confidence intervals

Checklist

What you should know

By the end of this subtopic you should be able to:

- state that a confidence interval is a range of values calculated using a sample mean, and is intended to estimate an unknown population mean
- state that a confidence level is the percentage of all possible samples for which the corresponding confidence interval contains the unknown population mean
- interpret the calculated confidence interval in terms of the situation presented in the problem
- describe how the confidence level and sample size affect the length of the confidence interval
- calculate confidence intervals with your graphic display calculator using z - intervals for situations when the population standard deviation is known and using t - intervals for when it is not known.

