

Assignment: Statistical Inference for One Mean

Name:

A biologist was helping a crab farm studying the size of the crabs to test whether the average length of crabs in this farm is 10 cm at the time of the study. A random sample of crabs was observed and their lengths data is listed below (in cm).

10.1 10.3 11.3 10.8 9.6 10.9 10.1

Perform a t-test to see if there is significant evidence to support that the average crab size for crabs in this farm was higher than 10 cm. Use p-value approach to conclude the analysis at 5% level of significance. You must report p-value of the test in your conclusion. (Normality is assumed.)

1) State the null and alternative hypothesis:

H_0 :

H_a :

2) Report the value of the test statistic:

3) Report the p-value of the test using t-table.

4) Conclude the analysis using p-value.

5) Find the 95% confidence interval for average crab size in this farm at the time of study.