

A scientist is investigating the lengths of the leaves of a certain type of plant. The scientist assumes that the lengths of the leaves of this type of plant are normally distributed. He measures the lengths,  $x$  cm, of the leaves of a random sample of 8 plants of this type. His results are as follows.

3.5    4.2    3.8    5.2    2.9    3.7    4.1    3.2

Find a 90% confidence interval for the population mean length of leaves of this type of plant.

[4]