

The lengths of the leaves of a particular type of tree are normally distributed with mean  $\mu$  cm. The lengths,  $x$  cm, of a random sample of 12 leaves of this type are recorded. The results are summarised as follows.

$$\sum x = 91.2 \qquad \sum x^2 = 695.8$$

Find a 95% confidence interval for  $\mu$ .

[4]