

The times taken by members of a large cycling club to complete a cross-country circuit have a normal distribution with mean  $\mu$  minutes. The times taken,  $x$  minutes, are recorded for a random sample of 14 members of the club. The results are summarised as follows, where  $\bar{x}$  is the sample mean.

$$\bar{x} = 42.8 \qquad \Sigma(x - \bar{x})^2 = 941.5$$

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

[4]