

The times taken by members of a large cycling club to complete a cross-country circuit have a normal distribution with mean μ 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 μ .

[4]