

- 10** The level, in grams per millilitre, of a pollutant at different locations in a certain river is denoted by the random variable X , where X has the distribution $N(\mu, 0.000\,040\,9)$.

In the past the value of μ has been 0.0340.

This year the mean level of the pollutant at 50 randomly chosen locations was found to be 0.0325 grams per millilitre.

Test, at the 5% significance level, whether the mean level of pollutant has changed.

[7]