

10 The mass, in kilograms, of a species of fish in the UK has population mean 4.2 and standard deviation 0.25.

An environmentalist believes that the fish in a particular river are smaller, on average, than those in other rivers in the UK.

A random sample of 100 fish of this species, taken from the river, has sample mean 4.16 kg.

Stating a necessary assumption, test at the 5% significance level whether the environmentalist is correct.