

Example 1. A random sample of $n = 35$ observations from a $N(\mu, 0.29^2)$ population produced a sample mean $\bar{x} = 2.4$. Does the sample provide sufficient evidence to indicate that $\mu > 2.3$? (Test using $\alpha = 0.05$.) Moreover, determine the 99% confidence interval for μ .

Example 2. The analysis of the nine different samples from a $N(\mu, \sigma^2)$ population gave the following results:

11.7 12.2 10.9 11.4 11.3 12.0 11.1 10.7 11.6

Do these measurements indicate that the population mean μ is significantly different from 12.1? (Test using $\alpha = 0.05$.) Moreover, determine the 95% confidence interval for μ .

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