STAT212 Assignment 4

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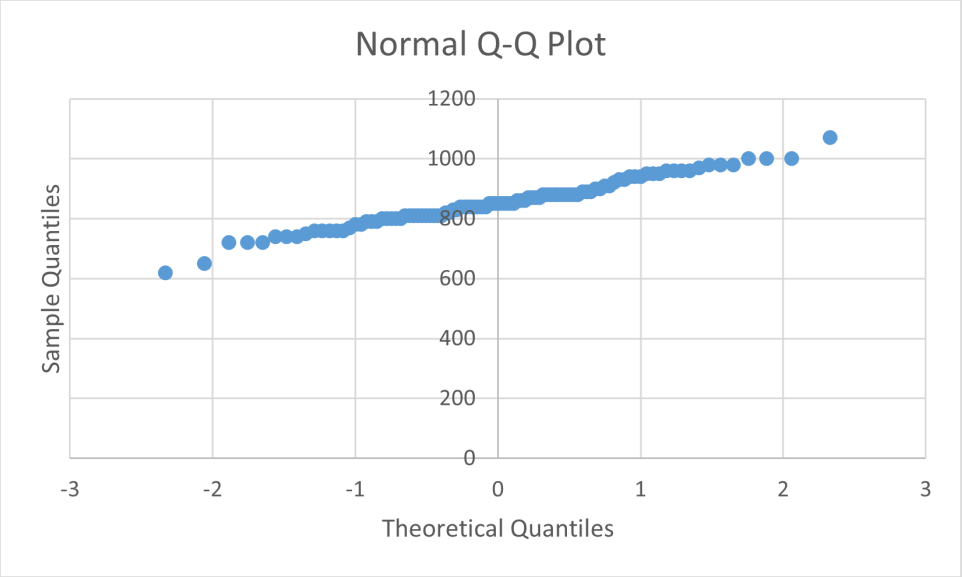
Answer to Question 1



Answer to Question 2

All the observations lie 'roughly' on a straight line. For this instance, it is plausible to conclude that the 100 times recorded follow a normal distribution approximately.

Answer to Question 3

(1-α_0%) CIs for σ given by:

$$(\sqrt{\frac{n-1}{\chi^2_{n-1,\alpha_0}}} \times s, \infty)$$

We know:

$$n = 100$$

$$s = 79.011$$

$$\alpha_0 = 0.9$$

$$\chi^2_{n-1,\alpha_0} = \chi^2_{99,0.9} = 117.407$$

Plugging these in:

$$90\% \text{ Lower Confidence Bound} : (72.553, \infty)$$

Answer to Question 4

Mr. Atoz would not approve the device for sale.