

Lecture 16: Goodness of Fit Tests  
Continued: Kolmogorov-Smirnov  
test, Kolmogorov-Lilliefors test,

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> 1. Objectives

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### Goodness of Fit Tests Continued: Kolmogorov-Smirnov test, Kolmogorov-Lilliefors test, QQ-Plots

At the end of this lecture, you will be able to do the following:

- Compute the **empirical cumulative distribution function** for a given sample.
- Perform the **Kolmogorov-Smirnov** test to determine if a data set has a particular type of distribution.
- Perform the **Kolmogorov-Lilliefors test** to test if a sample has a Gaussian distribution.
- Construct and interpret the **quantile-quantile (QQ) plot** of a data set.
- Compare and contrast the Kolmogorov-Smirnov test, Kolmogorov-Lilliefors test, and the chi-squared goodness of fit test.

## Discussion

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**Topic:** Unit 4 Hypothesis testing:Lecture 16: Goodness of Fit Tests Continued: Kolmogorov-Smirnov test, Kolmogorov-Lilliefors test, Quantile-Quantile Plots / 1. Objectives