Math 362: Mathematical Statistics II

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Last updated on Spring 2021
Last compiled on January 15, 2023

2021 Spring

Chapter 10. Goodness-of-fit Tests

Plan

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Statistics is the grammar of science.

(Karl Pearson)

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1. Karl Pearson, 1857 – 1936.
2. English mathematician and biostatistician.
3. He has been credited with establishing the discipline of mathematical statistics
4. Method of moments; p-Value; Chi-square test; Foundations of statistical hypothesis testing theory; principle component analysis ...

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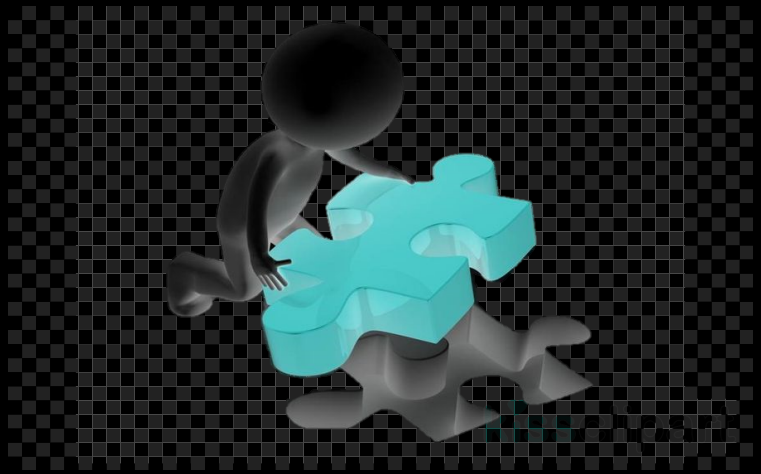
Pearson's chi-squared test in one shot



$$\chi^2 = \sum \frac{(\text{Observed} - \text{Expected})^2}{\text{Expected}} \sim \text{Chi Square of } \textit{df}$$

$\textit{df} = \text{numer of classes} - \text{number of estimated parameters} - 1$

All expected ≥ 5