

Chi-Square test for Goodness of Fit

Chi-square statistic -

Observed counts

Expected counts

Chi-square Distributions –

Conditions

The Chi-Square test for goodness of fit

Inference for Two-Way Tables

Comparing Distributions of a Categorical Variable –

Chi-Square test for homogeneity

Stating the Hypothesis

Expected counts

Conditions for performing a Chi-square test for homogeneity

Chi-Square test for Independence

Stating the Hypothesis

Expected Counts

Conditions for performing the Chi-square test for Independence

Using Chi-Square Tests Wisely

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State appropriate hypotheses and compute expected counts for a chi-square test for goodness of fit.

Calculate the chi-square statistic, degrees of freedom, and p-value for a chi-square test for goodness of fit.

Perform a chi-square test for goodness of fit. Conduct a follow-up analysis when the results of a chi-square test are statistically significant.

Compare conditional distributions for data in a two-way table. State appropriate hypothesis and compute expected counts for a chi-square test based on data in a two-way table. Calculate the chi-square statistic, degrees of freedom, and P-value for a chi-square test based on data in a two-way table. Perform a chi-square test for homogeneity. Perform a chi-square test for independence. Choose the appropriate chi-square test.

11.1) 1, 3, 5, 7, 8, 9, 12, 13, 16, 19

11.2) 27, 29, 31, 34, 35, 37, 38, 39, 45, 47, 50

Spiral Review: R3.2, T4.10, T7.4, R8.4, T9.11

Practice Test

Test