**Lecture 24**

**Chi Square Test for Independence of Attributes Exercises**

**Weiss Ex 13.85, p-628, Anderson Ex 11 pdf p-569),** **Ex 12, pdf p-570), Ex 16 pdf p-571)**

[Anderson **Ex 11**: Verify that expected frequencies are

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 35.58913 | 150.7304 | 455.6804 | 15.41087 | 65.26957 | 197.3196 |

Calculated test statistic is **100.4**, Chi square (0.05, 2) = **5.991**, so the null of independence is rejected]

**Chi Square Goodness of Fit Test**

Chi Square Goodness of Fit Test: This test is used to assess whether the observed sample distribution of a qualitative or a discrete quantitative variable.

Procedure 13.1, page 603.

~ k-1 df

where k = number of different groups/categories of the distribution

The test is valid provided that each expected frequency is at least 5.

[However, note on p-603 mentions that the statistician Cochran says that this rule of 5 is too restrictive].

Weiss, Example 13.2, p-600:

Weiss, Ex 13.27 p-608 [note the sum of observed frequency = 509],

Anderson Ex 22, 23, 24 pdf p-581