**Task 3**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Likes Zombie movies | Does not like Zombie movies | Total |
| Plays harf | 24 (17.78) | 6 (14.22) | 30 |
| Does not play harf | 8 (12.22) | 16 (9.78) | 24 |
| Total | 32 | 22 | 54 |

Expected frequency = row total \* col total / grand total

Degree of freedom = (row# - 1) \* (col# - 1) = 1

Chi-Square: (24-17.78) \*\* 2 / 17.78 + (6-14.22) \*\* 2 / 14.22 + (8-12.22) \*\* 2 / 12.22 + (16-9.78) \*\* 2 / 9.78 = 12.03

p = 0.0005 (Using <https://www.mathsisfun.com/data/chi-square-calculator.html>)

The result is significant at p < 0.05 (alpha = 5%).