

Hypothesis 1 Chi-Square Test

$$\chi^2 = 23.538181175249132$$

$$df = (r-1)(c-1) = (5-1)(5-1) = 16$$

$$1\% \rightarrow 32 \quad 10\% \rightarrow 23.54$$

$$5\% \rightarrow 26.3 \text{ (critical value)}$$

Since $\chi^2 < \text{critical value}$, our hypothesis will not be rejected.

that current GPA and mood are dependent.

Hypothesis 2 Chi-Square Test

$$\chi^2 = 16.794697097774023$$

$$df = (r-1)(c-1) = (5-1)(4-1) = 12$$

$$1\% \rightarrow 26.22 \quad 10\% \rightarrow 18.55$$

$$5\% \rightarrow 21.03 \text{ (critical value)}$$

Since $\chi^2 < \text{critical value}$, our hypothesis will not be rejected

that grades and work status are dependent on each other.