Ch-Square Test for Association of Categorical Variables

The table below presents voter reactions to a new property tax plan according to party affiliation.

From these data, construct a table of the expected frequencies based on the assumption that there is no relationship between party affiliation and reaction to the tax plan.

Party affiliation	Reaction			Total
	In favor	Neutral	Opposed	
Democratic	120	20	20	160
Republican	50	30	60	140
Independent	50	10	40	100
Total	220	60	120	400

Null and Alternative Hypotheses

H_0: Party affiliation and voter reaction are independent
    (there is no relationship).
H_1: Party affiliation and voter reaction are not independent.
    (there is a relationship)

Table of Expected Frequencies for the Observed Frequencies

Party affiliation	Reaction			Total
	In favor	Neutral	Opposed	
Democratic	88	24	48	160
Republican	77	21	42	140
Independent	55	15	30	100
Total	220	60	120	400