

Table 9.5 Chi-square calculation for test of whether candidate preference is independent of gender

Gender	Candidate preference	Observed frequency (f_{ij})	Expected frequency (e_{ij})	Difference ($f_{ij} - e_{ij}$)	Squared difference ($f_{ij} - e_{ij}$) ²	Squared difference divided by expected frequency ($f_{ij} - e_{ij}$) ² / e_{ij}
Male	Candidate A	35	47.5	−12.5	156.25	3.29
Male	Candidate B	120	90	30	900	10
Male	Candidate C	95	112.5	−17.5	306.25	2.72
Female	Candidate A	60	47.5	12.5	156.25	3.29
Female	Candidate B	60	90	−30	900	10
Female	Candidate C	130	112.5	17.5	306.25	2.72
	Totals	500	500			
	Chi-square					32.02