

TABLE 17.7

Three Examples of Two-Way Chi-Square Tests for Independence (as organized in a table)

 2×2 chi-square:

		Sex	
		Male	Female
Physical Exam	Pass	1	2
	Fail	3	4

 2×3 chi-square:

		Trimester		
		First	Second	Third
Stress Levels	Low	1	2	3
	High	4	5	6

 3×4 chi-square:

		Season of Birth			
		Spring	Summer	Fall	Winter
Time of Day	Morning	1	2	3	4
	Noon	5	6	7	8
	Night	9	10	11	12

Three examples of two-way chi-square tests for independence, as organized in a table. The cells in each table represent a group or category where we record frequencies. To find the number of cells, multiply the levels of each categorical variable. A 2×2 chi-square has $2 \times 2 = 4$ cells. A 2×3 chi-square has $2 \times 3 = 6$ cells. A 3×4 chi-square has $3 \times 4 = 12$ cells. The cells represent the groups, and are numbered in each example.