

QUANTITATIVE METHODS

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Assignment 24

This assignment is due **Friday April 29, 2005**. Question 1 is to be done by hand and question 2 with Excel, so a copy of your work for this question must be sent by *e-mail*.

Question 1 (10 points)

A random sample of 1000 was asked whether they voted in the last general election. Here are the results, broken down by age group.

	18-24 years	25-39 years	40-59 years	60 years or older
Voted	46	159	178	159
Did not vote	90	179	118	71

At the 1% level of significance, test the claim that voting status and age are independent.

Question 2 (10 points)

A sociologist conducted a survey to determine if the highest level of education attained by at least one of the partners is independent of or affects the number of years that a marriage will last (before ending in divorce). A summary of that survey is given below.

		Number of Years Marriage Lasted Before Ending in Divorce			
		0-1	2-5	6-15	16-20
Highest Education Level	High School	91	82	74	40
Attained by at Least	CEGEP	109	91	79	87
One of the Partners	University	133	111	96	68

Using a 2% level of significance, test the claim that the highest educational level attained by at least one of the partners is independent of the number of years that a marriage will last. This problem is to be done on Excel using the classical approach. Also, find the *p*-value.