

**MATU9D2 : PRACTICAL STATISTICS  
WEEKLY ASSIGNMENT 4**

This should be submitted via your tutor's box outside **room 4B89**. Ensure that you have the Course Name, your Name and Practical Group clearly marked on your answers. Your answers should be submitted by.

**Tuesday Group:**  
**Thursday Groups:**  
**Friday Groups:**

**12noon on Friday 17<sup>th</sup> February**  
**4pm on Tuesday 21<sup>th</sup> February**  
**4pm on Wednesday 22<sup>th</sup> February**

**All calculations should be performed by Hand and using Minitab. Include all working and appropriate plots**

1. During the current election campaign an opinion poll was carried out in constituencies across Scotland. Each person selected was asked, "which party do you intend to vote for on May 6th?"  
The data was as follows:

		<u>Political Preference</u>				
		<u>Tory</u>	<u>Labour</u>	<u>Lib Dem</u>	<u>SNP</u>	<u>Other</u>
<u>Gender</u>	Male	61	152	49	98	25
	Female	92	125	62	105	31

- (i) By performing an appropriate test, assess formally the evidence of association between gender and political preference.
2. The respondents of a survey were classified by magazine read and income as follows:

		<u>Annual Income (£)</u>		
<u>Magazine</u>		<u>under 10000</u>	<u>10000 - 15000</u>	<u>15000 and over</u>
A		24	60	55
B		15	40	48

- (a) Test the hypothesis that magazine choice is independent of the level of income using a 5% significance level.