MATU9D2: PRACTICAL STATISTICS WEEKLY ASSIGNMENT 1

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

Monday Group:12noon on Thursday 26th JanuaryTuesday Group:4pm on Friday 27th JanuaryThursday Groups:4pm on Tuesday 31st JanuaryFriday Groups:4pm on Wednesday 1rd February

All calculations should be performed by hand and calculator (*not computer*). Include all working.

1. A large orthopaedic clinic is well known for having excellent doctors and for the lengthy period of time that elapse between a call for an appointment and the actual appointment. The following data represent the lengths of time in days between the calls for appointments by a random sample of 40 patients and the dates of their appointments.

10	13	15	18	22	28	32	35	40	42
10	13	16	19	23	30	34	36	40	43
11	14	17	20	25	30	35	38	40	44
12	14	17	21	25	31	35	39	41	44

- (i) Draw a Stem and Leaf plot.
- (ii) Calculate the Five Number Summary of the data.
- (iii) Are there any outliers?
- (iv) Draw a Box and whisker plot.
- (v) Comment on the shape of the distribution.
- 2. The following data gives the amount spent (to the nearest £10) by a sample of 36 credit card users over a 1month period.

270	230	140	80
480	510	340	390
210	190	380	250
180	90	80	170
330	310	280	260
130	120	240	240
290	120	280	180
310	200	420	310
470	370	410	430

- (i) Draw a Stem & Leaf Plot
- (ii) Calculate 'appropriate' numerical summaries for location and spread. (Hint: depends on the shape)