

Names: _____

Student Number: _____

Homework Two Q. 1 (AOL: BS LG1 LO1)

Statistic I

Deadline for this homework is 2019/01/04 13:00

Total: 30/30

Please show as much working as possible that best completes each statement or answers the question (with explanations), marks will be adjusted accordingly. Do not copy other person's working (no marks will be given) and do not let other person copy your work!

In the following questions, for the entry X, let X equals to the last two digits of your student number multiple plus 300, for example, student number B0344237, $X = 300 + 37 = 337$.

1. According to a study done in USA, the mean consumption of beef per person in 2005 was 337.5 kg. A sample of 13 randomly selected individual, on last year's beef consumption, yielded the following values:

207	422	272	362	165	269	X
237	226	328	205	266	488	

- 1.1. Obtain a normal probability plot of the data.
- 1.2. Based on your graphs from above, which one-mean hypothesis test is more appropriate (the one-mean z-test or the one-mean t-test or none of the above)? Explain your answer.
- 1.3. Ignore the test that you have chosen to perform the hypothesis above, and suppose you have being told that the population is normal distributed; now perform the appropriate hypothesis test, at 5% significance level, whether last year's mean beef consumption is less than the 2005 mean?

[30]

Ans.: