Week 5 Homework

1. In this week, we looked at reading and writing files into Python. Explain your approach when:
   a. You have a large experimental data file. This file contains numbers (i.e. integers and floats) and you would like to see the patterns.
   b. A large time series file is downloaded from internet. You would like to see their trends. (You can assume the file is mainly in numbers)
   c. You would like to analyse the contents in a picture.
   d. An essay is stored in a Word document.

You may need to make some assumptions about the data file to answer this question. Use the following table to help you as a template.

Q	Package(s) used	Read/ Write function	Analysis approach
a.			
b.			
c.			
d.			

2. In these 3 weeks we are looking into hypothesis testing. The use of a hypothesis testing is to test if a statement is statistically significant or not. In the following, find the definitions of the terms used in hypothesis testing:
   a. Null hypothesis
   b. Statistically significant
   c. Cumulative distribution function
   d. p-value
   e. Confidence interval
   f. Normal distribution