Q1. If you have any, what are your choices for increasing the comparison between different figures on the same graph?

Ans: Matplotlib provides a convenient method called subplotting to improve comparisons between different numbers on the same chart. A subplot is a group of smaller axes (each axis is a plot) that can exist together in one figure.

Q2. Can you explain the benefit of compound interest over a higher rate of interest that does not compound after reading this chapter?

Ans: Compound interest earns a return on the money invested plus a return on those returns at the end of each compounding period daily, monthly, quarterly or yearly, so the total money grows faster than simple interest.

Q3. What is a histogram, exactly? Name a numpy method for creating such a graph.

Ans: Histogram shows total values of X wrt Y. Which means at any particular position of X, Y value shows the total number of counts or data below that value of X. numpy.histogram() is the built-in function used.

Q4. If necessary, how do you change the aspect ratios between the X and Y axes?

Ans: We can use the figure(figsize=(10,8)) function inside the matplot.pyplot library which we scale down or up the graph.

Q5. Compare and contrast the three types of array multiplication between two numpy arrays: dot product, outer product, and regular multiplication of two numpy arrays.

Ans: In regular multiplication values of same index get multiplied.

* In dot product there is row wise multiplication, row of one array with column of second array and so on.
* In outer multiplication every element of first array a1 will be multiplied by every element of another array a2 such that the number of columns will be equal to the number of elements in another array a2.

Q6. Before you buy a home, which numpy function will you use to measure your monthly mortgage payment?

Ans: np.pmt(rate, nper, pv) function we will be using in order to calculate monthly mortgage payment before you purchase a house.

* rate = The periodic interest rate
* nper = The number of payment periods
* pv = The total value of the mortgage loan

Q7. Can string data be stored in numpy arrays? If so, list at least one restriction that applies to this data.

Ans: Yes, you can store strings in arrays. Constraints imposed on string data should be noted that whenever storing string data dtype , the maximum length of the string is the limit.