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

Line graphs are used to track changes over short and long periods of time. When smaller changes exist, line graphs are better to use than bar graphs. Line graphs can also be used to compare changes over the same period of time for more than one group.

Pie charts are best to use when you are trying to compare parts of a whole. They do not show changes over time.

Bar graphs are used to compare things between different groups or to track changes over time. However, when trying to measure change over time, bar graphs are best when the changes are larger.

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

Compound interest causes your wealth to grow faster. It makes a sum of money grow at a faster rate than simple interest because you will earn returns on the money you invest, as well as on returns at the end of every compounding period. This means that you don't have to put away as much money to reach your goals

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

Creating NumPy Histogram

The NumPy histogram() function displays the frequency of data distribution in a numerical form. Rectangles with varied heights and identical horizontal sizes represent frequency and a class interval called a bin, respectively.

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

The aspect ratio of a matplotlib plot refers to the aspect of the axis scaling, i.e. the ratio of y-unit to x-unit.

This ratio can be modified by using the matplotlib.axes.Axes.set\_aspect() function.

Under the hood, the set\_aspect() function actually modifies something known as the data coordinate system but in practice we typically want to modify the display coordinate system.

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.

‘\*’ operation caries out element-wise multiplication on array elements. The element at a[i][j] is multiplied with b[i][j] .This happens for all elements of array.

It carries of normal matrix multiplication . Where the condition of number of columns of first array should be equal to number of rows of second array is checked than only numpy.dot() function take place else it shows an error.

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

In order to calculate the monthly mortgage payment, you will use the numpy function . pmt(rate, nper, pv) where: rate = The periodic (monthly) interest rate.

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

The elements of a NumPy array, or simply an array, are usually numbers, but can also be boolians, strings, or other objects.