P11469SD – COMP27112 - Lab2

1.)You need to limit the number of points as the Float32Array is statically allocated, so once its made, you have a maximum limit for how many points you have

2.) When the limit is reached the program will crash as it tries to index the array with a larger index than the length of the list

3.) The head of the attractor is a larger point as very often with the attractor, the lines cross over old lines, making them hard to see. The head being large allows for you to see that it is still working.

4.) The old data is redrawn on refresh

5.) If two attractors start at the same point, then they are the same attractor effectively as they are subject to the same equations

6.) The buffer that stores the points coordinates in my program can store 150,000 points or 450,000 numbers

7.) The first parameter is the radius, the second is how many segments the width of the sphere is made of. The third is how many segments the height of the sphere is made of.

8.) When the number of drawn points exceeds the capacity it should reset to the starting position.

9.) The x,y,z coordinates must be reset to their initial position. The buffer of points needs to be cleared, as well as the number of points drawn which should be set to zero

10.) Changing this variable seems control how sharp the turns are

11.) This controls the scaling for the graph

12.) I am not sure

13.) Changing dt seems to also control scaling however it also has the effect of more blocky lines, as the points are plotted at a lower accuracy

14.) To increase the number of starting attractors new starting coordinates and variables must be specified at the next index of every relevant list. NUM_LORENZ needs to be incremented too.