Q2：

The complexity of my Lagrange interpolation algorithm is O(n^2), in which n is the amount of points.

The complexity of my Newton interpolation algorithm is O(n^2), in which n is the amount of points.

Q3:

I drew the picture through python and the result is shown as below.

We can find that the curves of lagrange and newton are same, and they share the same characters when comparing with original curve.

By comparing the three curves, we can see that the curve of Lagrange\_h=1 fits the original best when it gets close to x = 0, but it differs from original curve greatly when it is far away from original point. While the curve of Lagrange\_j=2 gits the original curve better than the curve of Lagrange\_h=2 when it is far away from original point but has great error when getting close to original point.



