Logan Maier HW2 Analysis

1b) When analysing the plot we can see 3 distinct slopes, which is nice because that is what we expected. The GSL slope is exactly what we expected, it should not have much of any error. The areas in question are the simpson and milne slopes. Both slopes are negative which means the eerror decreases linearly until reaching the area where the machine precision clouds the results dramatically. We can also notice that the simpson and milne correspond to their log-log plot magnitudes of 1/N^4 and 1/N^6 respectively. There really is no comparison when it comes to saying which of the three is better. The GSL is far superior.

1c) By looking at the graph I see that the optimum number of points is between 390 and 400 while in double precision. I used the point where the line section of the Milne slope meets the clouded out area caused by the machine precision.

Grade: check +

Looks good...one of the few who got Milne to work.