Preparation guide for Quiz 03

Since the content of this quiz is very little, the homework problems are especially important, every one of them.

Here is the check list:

1. Those materials that I told you to skip, skip them.
2. Be able to write down the formulae for the Lagrange polynomials and know their basic properties.
3. Given the data $(x_0, y_0), \cdots (x_n, y_n)$, know how to compute all the divided differences. See Table 3.7 and 3.8 for example.
4. Know how to generate the interpolating polynomial with the Lagrange polynomials, or with the divided differences.
5. This time, you will need to do a self-contained programming, on Newton divided difference. Write one from scratch. More importantly, test it with the 'interp.m' on the course homepage against polynomials where you know the exact solution of the interpolating polynomial. People almost always make some mistake in the first programming attempt. This one is short enough for you to debug.

   You will need to do it again in the quiz. No more and no less.
6. Memorize the formula of interpolation error. Be able to derive basic error bounds.