Math 350 — Computer Assignment 3, due February 24, 2011

1. Do Exercise 3.2 in NCM.

   You may want to consult the MATLAB Help for `datetick` if you have trouble getting your graph to look like the one in Fig. 3.10.

2. Do Exercise 3.3 in NCM.

3. Do Exercise 3.4 in NCM.

   If you follow the instructions in the book, you can save your hand data in the file `myhand.mat` using the MATLAB command `save myhand x y` and retrieve it in a later MATLAB session with `load myhand`. We will use this hand data in a future computer assignment.

4. Do Exercise 3.9 in NCM.

   The task for you in part (b) is to play with the distribution of the data points (by modifying line 61 of `rungeinterp.m` or adding alternatives) and find a distribution that works much better than the default equal spacing. There is also a rigorous mathematical proof supporting this part of the problem (and the more mathematically/theoretically inclined among you may want to look it up).

5. Do Exercise 3.11 in NCM.

6. Do Exercise 3.14 in NCM.

   For part (a), save your modification of `splinetx.m` as `splinetx_mod.m`.

   As a consequence, for part (b) you will have to update `interpgui.m` so that it now uses the function `splinetx_mod` instead of the original `splinetx`.