Numerical Analysis and Programming

Problem Set #11 Due: May 26

1. Implement a module called `differentiate.py`, in which the $O(h^2)$ approximation formulas are implemented. Also in the module, implement Richardson's extrapolation for the central difference approximation.

Hand-In Procedure

1. Save your code as py11.py. Do not ignore this step or save your file(s) with different names.

2. Time and Collaboration Info
   At the start of each file, in a comment, write down the number of hours (roughly) you spent on the problems in that part, and the names of the people you collaborated with. For example:

```
# Problem Set 11
# Name: Ying-Jer Kao
# Collaborators: Alice Lee
# Time: 3:30
#
... your code goes here ...
```

3. Upload to Ceiba.

Note: Discussions are strongly encouraged, but **no copying** is allowed. All parties involved in copying will get **zero** for their homework.