Homework Assignment 12
Due on Friday 12/28

Programming Problems:

1. Write a Matlab code that solves

$$y(a) = \alpha, \quad y'(t) = f(t,y) \quad \forall t \in [a,b]$$

by using Euler's method. Your code should take a, b, h, f, α as inputs and return w_i as outputs, where h is the step size and w_i is an approximation for y_i.

Save your code as function M-file and submit it to num_ana@math.nthu.edu.tw

Writing Problems:

Do the following exercise problems in the text book by Bradie,

Sec 7.1: 1(a, b, e), 2(a, d), 3*(b,d), 4, 6*, 7*, 8*

Sec 7.2: 1, 4*, 9*, 13, 17*, 20, 23*

We only discuss * problems in discussion section.