Homework Assignment 6
Due on Friday 11/15

Programming Problems:

1. Write a Matlab code that generates the interpolating polynomial by in Lagrange form.

2. Write a Matlab code that generates Neville's tables for given $\{x_i, f_i\}$ data and x. Your code should take $x, \{x_i, f_i\}$ as input data. After executing the code, it should display whole table and output $P_n(x)$.

3. Write a Matlab code that generates Netwon's form table of the interpolating polynomials for given $\{x_i, f_i\}$ data. Your code should take $\{x_i, f_i\}$ as input data. After executing the code, it should display whole table and output all a_i.

Writing Problems:

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

Sec 5.1: 2, 4*, 7, 8, 9*, 11*, 14

Sec 5.2: 5*, 7*, 10*, 14

Sec 5.3: 6*, 10, 11*, 12*

Do all problems by hand without using codes except 4 in Sec 5.1. **Please provide the intermediate steps and results to show how you get the final answer instead of giving it only**.

Just turn in the problems with *.