

Homework 12

MATH 5610 FALL 2016

NAME:

GRADE: _____

Problem 1. Determine a set of equations using the method of undetermined coefficients for a second order approximation of the third derivative of an arbitrary function, $f(x)$.

Problem 2. Use the codes you have developed over the semester to compute a solution of the linear system of equations.

Problem 3. Use the method of undetermined coefficients for determining a numerical integration formula that will integrate any polynomial of degree less than or equal to 5. Also, write a composite rule using the method you have created. If you have time, write a pseudo code that can be used as a template for coding.
