Assessment #8

Math 370 — Numerical Analysis

Assigned: Wed Apr 09 — **Due: Wed Apr 16**

Do the following homework questions found in the text book (*Numerical Analysis*, Burden & Faires (5th Edition), 1993). Odd-numbered problems have solutions in the back of the text.

1 Obtain approximations to $\int_1^{1.5} x^2 \ln(x)\, dx$ using Gaussian Quadrature with

(a) $n = 2$

(b) $n = 3$

(c) $n = 4$

(d) For each method find the actual error and compare it to the theoretical error bound for that method.

1 page 222, #5(b) (Use the 2-D version of Gaussian Quadrature)

3 page 228, #1(a),1(b)

4 page 229, #2(a),2(b)

5 page 229, #3(a),3(b)

6 page 229, #4(a)

Journal

Write down a paragraph on any subject related to the class that you want to.
Since this is the last assessment I would like you to write some paragraphs on your views on these assessments and tell me if you found them useful, how they could be improved, what was your favorite problem, what was your least favorite problem.