Assessment #6

Math 370 — Numerical Analysis

Assigned: Wed Mar 26 — **Due: Wed Apr 02**

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 page 165, #1(a)

2 page 166, #2(a)

3 page 167, #14

4 page 167, #16

5 page 167, #19

6 Consider the following data. At each x value produce an $O(h^2)$ approximation to f' and f''. That is, fill in the rest of the table. Given that $f(x) = x\ln(x)$ compute error bounds for f' and f''

x	$f(x)$	$f'(x)$	$f''(x)$
8.1	16.94410		
8.3	17.56492		
8.5	18.19056		
8.7	18.82091		

Journal

Write down a paragraph on any subject related to the class that you want to. I would specifically like to read what you think have been the highlights and lowlights of the course to date. As always you can comment on any other feature of the class that you like (or dislike).

Online Participation

Let's continue the informal discussion of matrix topics (chapter 6 and 7) versus differential equations (chapter 5). I would recommend that people atleast LOOK at the chapters in the next week or so while we are discussing this topic.

"Learning to solve systems of linear equation using matrices is more useful than learning to solve solutions of ordinary differential equations."

I would like to hear what people think about these topics. Does it depend on what your major is or what your career plans are? Discuss!

To participate, send electronic mail to `370@abacus.oxy.edu`