Assessment #2

Math 370 — Numerical Analysis

Assigned: Fri Jan 24 — **Due: Fri Jan 31**

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.

1 Page 31, #6

2 Page 31, #7

3 Page 31, #8

4 Write down an algorithm in pseudocode to find the square root of a given number a to 4 decimal places. Use the Babylonian Algorithm,

$$x_{n+1} = \frac{1}{2}\left(x_n + \frac{a}{x_n}\right)$$

Your pseudocode should clearly include the operations `INPUT`, `OUTPUT`, `STOP` and be sure to indicate the beginning and ending of your `LOOP`.

5 Page 45, #7

6 Page 45, #13

7 Page 45, #14

8 Page 50, #1

9 Page 50, #3

Journal

Write down a paragraph on any subject related to the class that you want to. Topics this week could include your feedback on group work and using the computer. As always you can comment on any other feature of the class that you like (or dislike).

Online Participation

The online conversation on the class email list is starting to get interesting, so I think we shall continue the Discussion Question from last week. That is:
"Which is a better solution to the problem of representing floating point numbers using a finite mount of digits: **chopping** or **rounding**?"

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

Remember: Online participation is part of your grade!