Assignment #4

Due Tuesday, 3 October at the start of class

Please read sections 3.4–3.9 of the textbook (J. Epperson, *An Intro. to Numerical Methods and Analysis*, 2nd edition). Sections 3.10–3.13 are skipped.

Section 3.3, pages 104–106:

- **Exercise 6**

Section 3.4, pages 109–110:

- **Exercise 4** Do parts (a) and (b) only. You will need formulas $x_{n+1} = x_n(2-x_n)$ and $x_0 = p_1(a)$ where $p_1(x) = 3 - 2x$. (*You do not have to write a* MATLAB *code, but please indicate calculations done by machine.*)

Section 3.5, pages 113–115:

- **Exercise 1**
- **Exercise 3**
- **Exercise 5**
- **Exercise 6**

Section 3.7, pages 121–122:

- **Exercise 1** Do parts (a) and (b) only. You will need formulas $x_{n+1} = \frac{1}{2}\left(x_n + \frac{b}{x_n}\right)$ and $x_0 = p_1(b)$ where $p_1(x) = \frac{1}{3}(2x+1)$. (*The same comment as on 3.4 #5 applies.*)