Assignment #3

Due Wednesday 3 October at start of class.

These exercises are mostly from Chapter 4 of the course textbook by Greenbaum and Chartier, *Numerical Methods: Design, Analysis, and Computer Implementation of Algorithms*.

In your solutions, remember to:
- show me your calculations,
- show me plots if requested,
- show me the final MATLAB code (or commands at the command line) which you used, and
- check that you have answered the question.

Page 102, exercise 1.   *Here* "What formula . . ." *means* "What formula from this Chapter . . . ," *of course.*

Pages 102–103, exercise 2.   *Do only parts* (a) *and* (b). *But notice the exercise starts with* "... plot the function $f(x) = (5-x)\exp(x) - 5$, for x ..."' *do this first! The book's web page is*

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http://www.davidson.edu/math/chartier/numerical/matlab.html
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Page 103, exercise 3.

Page 103, exercise 4.

Page 103, exercise 5.

Page 103, exercise 6.

Page 103, exercise 9.   *For exercises like this I expect actual writing. Give concise but complete sentences that fully address these questions.*

Pages 103–104, exercise 10.

Pages 104, exercise 12.

Pages 104, exercise 14.

Pages 105–106, exercise 18.