MATH 566 – Homework #7

due 25 October 2007

1) Exercises 7.4.7 and 7.4.8.

2) Write a computer program in Matlab to solve

\[ Ax = b, \]

where \( A \) is \( n \times n \), via steepest descent method.

Your program should read the data from a file called \texttt{hw7.dat} which must be organized in this order:

- the size \( n \) of the problem
- the maximum number of iterations permitted
- the entries of matrix \( A \), one row at a time, starting with the top row
- the entries of vector \( b \), starting from the top
- the entries of the “initial guess vector \( x_0 \), starting from the top