

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

$$A\mathbf{x} = \mathbf{b},$$

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

Your program should read the data from a file called `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 \mathbf{b} , starting from the top
- the entries of the “initial guess vector \mathbf{x}_0 ”, starting from the top