Homework #0

- Textbook: 1.1.8, 1.1.9, 1.1.10, 1.1.14, 1.1.20, 1.2.4.

- Programming:

  1. Write a function in Matlab that takes as input a column vector of numbers and its length and returns as output the sum of the positive entries of the vector. Use only programming basics: the script for functions, for loops, and if statements. Do not use Matlab’s “sum” command.
     
     (a) Write out or print out your program.
     
     (b) Create a column vector of eight integers of your choice and run your function on each of these vectors. Write down your results.

  2. Write a function in Matlab that takes as input two column vectors of numbers of the same length and the length and returns as output the dot product of the two vectors and the number of flops used. Use only programming basics: the script for functions and for loops. Do not use any of Matlab’s in-built matrix-vector or dot product commands.

     (a) Write out or print out your program.

     (b) Create two column vectors of ten integers of your choice and run your function on these vectors. Write down your results for the dot product and the flop count.