PHYS 2326
April 28, 2014

HOMEWORK SET 10 (due Friday, May 2)

PROBLEM 1: (30 points) You were given a program "`ForStudents.cpp`" that reads in 8 complex numbers and stores them as `x[0], x[1],...x[7]`. It then computes and prints to the screen the values of the DFT coefficients `X[0], X[1],...X[7]`.

Add to that program a section that reconstructs the `x[k]` from the `X[n]`. Print out the reconstructed `x[k]` in the same format as the printout of the `X[n]`.

Lastly, use the "by hand" FFT to find an alternative computation of the `X[n]`. Print these out in the same format as that used for the original `X[n]`.