Math 4355 – Spring 2015   Name:

HW #2

Please, write clearly and justify all your steps, to get proper credit for your work.

(1-3) Solve problems Ex. 7,9,10, p.35, from the textbook.

(4) (Matlab project) Define a variable with the command "x=0:0.001:1;" in Matlab. This defines a row vector with values ranging from 0 to 1 in steps of 0.001 increment. Now plot the several functions fn(x) in the sequences defined in Ex.7 for n=2, n=10, and n=50. Think about a way to produce the piecewise definition of the functions. Refer to Matlab Help if needed. You may want to call the resulting vectors of function values f2, f10, and f50. Plotting the functions is simply done by "plot(x,f2);" and similarly for f10 and f50. Save the plots and print them. Attach a printout of your plots to your homework, together with the Matlab code you used to generate the function values.

[NOTE: If you have no access to Matlab, you can use Octave or Scilab that are free and have a very similar syntax to Matlab]