

2. Starting with the supplied **hw04b.ipynb**, generate a function on the domain  $x = [0..1]$  such that  $f(x) = 2x$  for  $x < 0.6$  and  $f(x) = 0$  elsewhere. Perform multiresolution analysis with Haar wavelets to approximate the function. Carry your analysis out to at least the  $a = 3$  level. At each level, print out the wavelet coefficients and plot the wavelet approximation along with the original  $f(x)$ .

Submit your assignment by 11:59 PM on Sunday, March 27:

**submit p5730 hw04 hw04a.py hw04b.ipynb**