You are allowed to discuss problems with other students, but the final answers must be your own work. Please attach this page to your solutions.

YOU MUST ATTACH SEPARATE PAGES, NEATLY WRITTEN, THAT SHOW YOUR WORK. You may include computer printout.

Report all numerical answers to at least two correct decimal places.

DUE DATE: IN CLASS ON WEDNESDAY, OCTOBER 28.

1. Exercise 10.4, parts a, b, and c, on p. 385.
2. Exercise 7.1, p. 257.
3. Verify that the Haar mother wavelet has regularity (0,0), and that the father wavelet satisfies the first two conditions. For the Haar wavelets, describe the spaces $V_0$ and $W_0$ in multiresolution analysis. Derive the two-scale identities for the Haar wavelets.