Image Processing

Homework number 4

Due date: April 4, 2005

1. Problem 8.1 of the textbook
2. Problem 8.2 of the textbook
3. Problem 8.7 of the textbook
4. Problem 8.14 of the textbook
5. Problem 8.18 of the textbook
6. Problem 7.3 of the textbook
7. Problem 7.6 of the textbook
8. Decompose the image Elaine (from the web page of the course) using one level of subband coding. Discard all the subbands except for the LL. Reconstruct the output. Calculate the mean square error.
   Repeat the above with two levels of subband decomposition. You can use the 8-tap orthonormal Daubechies filter give on page 359 of the text book.