

CEG4316 Digital Image Processing

Fall 2011

Problem Set 1

Due Oct. 26, 2011 by 3 PM in the CEG4316 assignment box.

1. Chapter 2, problem 9(f).
2. Chapter 3, problem 6.
3. Chapter 6, problem 1(c).
- 4 Chapter 6, problem 1(d).

For problems 3 and 4, also specify a sampling structure conversion system to transform a signal $f[\mathbf{x}]$ sampled on Λ_1 to a signal $g[\mathbf{x}]$ sampled on Λ_2 . Assume that ideal lowpass filters are used where filters are required and sketch their passband in the frequency domain and indicate the gain.