

Assignment R1

Due Date: To be announced during the lectures and posted on the course web page.

Note: Problems identified only by number (e.g., A.1, 2.1, etc.) can be found in the coursepack textbook. More specifically, Problem $x.y$ can be found in the coursepack textbook at the end of chapter/appendix x .

Preamble

This assignment covers material primarily related to the following: **multirate signal processing fundamentals**.

Problems

- ◇ 3.1 a b c d [multirate system transformations]
- ◇ 3.2 a b [effect of upsampling/downsampling on spectra]
- ◇ 3.6 c [time-domain analysis of sampling-rate convertor]
- ◇ 3.9 c e [polyphase representations of FIR filters]
- ◇ 3.14 a c [relationship between polyphase representations]