

ECE 4270 - Summer 2004 Homework Assignment #1

Assigned: May-12-2004

Due Date: May-19-2004

General Note:

- Homework is due at class time on the “Due Date”; no late homework will be accepted.
- Make a **COVER PAGE** for your homework, including your name and GT number. You can find a sample cover sheet in the website for class resources. Staple your homework together; the TA will not be responsible for missing pages.
- Solutions will be available on the course web site after each corresponding due date.

Reading: In *Discrete-Time Signal Processing*, Chapter 2, pp. 8–40.

PROBLEM 1.1:

Internet Research - Find a DSP-related web site that has information about recent developments of DSP technologies or products, including “interesting” applications. Your answer, in 1-page essay form, must include the following:

- Exact URL of the web site so that *one click* will take the reader to the page that has information of interest, not just the lead home page of the company or organization;
- Name of the Web site; many have clever names that make it easy to refer to;
- A critique of the web site (why it is, or not, interesting) and its DSP contents (2-3 paragraphs).

PROBLEM 1.2:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, **Basic Problems with Answers**: 2.1 (p.70), 2.5 (p.71), 2.6 (p.71), and 2.11 (p.72) – demonstrate how you obtain the answers.

PROBLEM 1.3:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, Prob. **2.22**, page 74.

PROBLEM 1.4:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, Prob. **2.25**, page 75.

PROBLEM 1.5:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, Prob. **2.30**, page 76.

PROBLEM 1.6:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, Prob. **2.31**, page 76.

PROBLEM 1.7:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, Prob. **2.40**, page 80.

PROBLEM 1.8:

Discrete-Time Signal Processing, 2nd Edition, Chap. 2, Prob. **2.42**, page 80.