

Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

6.341: DISCRETE-TIME SIGNAL PROCESSING

Fall 2005

Problem Set 8

Computation of the DFT: Direct Computation, The Chirp Transform, The FFT

Issued: Tuesday November 1, 2005.

Due: Tuesday November 15, 2005.

Reading: Chapter 9, Sections 9.0 to 9.5, Section 9.6.2. Section 9.5 can be read lightly. The three articles on the course website by Rabiner; Cooley; and Heideman, Johnson, and Burrus are also recommended.

Problem 8.1

OSB Problem 9.1

Problem 8.2

OSB Problem 9.7

Problem 8.3

OSB Problem 9.21

Problem 8.4

OSB Problem 9.31

Problem 8.5

OSB Problem 9.35

Problem 8.6

OSB Problem 9.10