University of Washington
April 10, 2001
Department of Computer Science and Engineering
CSE 521, Spring 2001

Homework 3, **Due Wednesday, April 18, 2001**

Reading Read sections 17.1 and 17.2. We will probably skip the rest of chapter 17.

Problem 1:

Describe a polynomial time algorithm for computing the Longest Common Subsequence of three input strings.

Problem 2:

CLR Page 324. Problem 16-1.

Problem 3:

CLR Page 325. Problem 16-3. You do not need to give anything better than $O(nm)$ space.

Problem 4:

Let S and T be random strings of length n over an alphabet of size K. The expected length of the Longest Common Subsequence of S and T is $\alpha_K n$ for some α_K with $O < \alpha_K < 1$. Experimentally determine the value of α_K for $K = 2, \ldots, 10$.