

Algorithm

Problem Set 3

October 9, 2012

1. A subsequence of a sequence (need not be consecutive) is palindromic if it is the same whether read left to right or right to left. For instance, the sequence $A, C, G, T, G, T, C, A, A, A, A, T, C, G$ has many palindromic subsequences, including A, C, G, C, A and A, A, A, A . On the other hand, the subsequence A, C, T is not palindromic.

Give a high-level description of an algorithm that takes a sequence of n symbols and returns the length of a longest palindromic subsequence. Your algorithm should run in time quadratic in n .

Note: You should describe your solution in a high-level, pseudocode fashion. You are not supposed to submit any actual code

Due Wednesday October 10 at midnight.