

Introduction to Algorithms

Due: May 22, 2017, 10 a.m.

Exercise 1

8 points

- (a) Consider the following pattern $P \in \{a, b, c\}^*$:

babcbabccababc

Apply the Boyer-Moore algorithm to P and a text $T \in \{a, b, c\}^*$ of length at least 50 of your choice, where both the bad-character- as well as the good-suffix-rule can be successfully applied at least once.

- (b) Give and analyze an algorithm to determine the array $\gamma[j]$ used in the algorithm of Boyer-Moore.

Exercise 2

12 points

Implement the algorithm from class to determine the edit distance between strings. For input strings u, v your program should also return the sequence of intermediate strings in the transformation from u to v .