

Algorithmen und Datenstrukturen in der Bioinformatik

Erstes Übungsblatt WS 08/09

Abgabe einen Tag vor der Übung 12:00

Name:

Übungsgruppe:

A B C

Matrikelnummer:

Ich kann Aufgabe _____ nicht vorrechnen.

Exercise 1: Algorithm illustration

For the following pattern and text:

$$P = ababa$$

$$T = ababzabababaababab$$

Illustrate how the Shift-Or algorithm operates on this data. Give the number of necessary letter comparisons.

Exercise 2: Shift-Or algorithm extension

Extend the Shift-Or algorithm so that any number of '?' wildcards can occur in both text and pattern. A '?' matches any other symbol. Apply the modified algorithms to the following example:

$$T = cgtagctagccta??cga?, \quad p = a?cc .$$
