

Tutorial 9: November 16

1. Let $P = \text{abacabaca}$ and let $T = \text{abacabacdabaca}$. Search for P in T using the KMP algorithm.
2. Consider the pattern $P = \text{ababbcababcbab}$ in the alphabet $\Sigma = \{a, b, c, d\}$. Using the Boyer-Moore algorithm, search for the pattern P in the following text T .

$T = \text{ababababbcbabababbabbcbabcbadababbcbcbacbababbcbabcbab}$

3. Let s be a string of length n and let \mathcal{T}_s denote the corresponding suffix tree. For an integer parameter $1 \leq \ell \leq n$, give an $O(n)$ time algorithm that finds the most commonly occurring substring of length ℓ in s .