KMP

AHO-CORASICK

T: AA BA ACA*DA ABAABA

P AABA

$O(|T||P|)$

$S \in \Sigma^*$

Pref(S) = cel mai lung prefix propriu care este si sufix al lui s

Pref(A A B A A) = AA
       2

AAAA = 3

$\pi(i) = T[1-i]$

$\pi(5) = \text{Pref}(T[1-5])$

$\pi(1) = 0$

$$
\begin{array}{ccccccccccccc}
 & 0 & 1 & 0 & 1 & 2 & 0 & 1 \\
\pi: & 0 & 1 & 0 & 1 & 2 & 0 & 1 & 2 & 0 & 1 & 2 & 3 & 4 & 5 & 3 \\
T: & A & A & B & A & A & C & A & A & D & A & A & B & A & A & B & A
\end{array}
$$

$\pi(1) = 0$

```
For (int i=2; i<=|S|; i++)
      int j = π[i-1]
      while (S[i] != S[j])    j>0
            j = π[j]
            if
```

2 3 3 $\prime\prime$ $\prime\prime$

$\circlearrowright$

2314

```
For (i =1; i ≤ m; i++)
    int j = i;
    while (v[i] == v[j])
        j ++;
    i = j
```

$P + \# + T =$
```
  0 1 0 1 0    1 2  3 4 2 0   1  2  0 1 2 3 4  2 3  4
  A A  B A #   A A B A A C  A  A  A A A R A  A B  A
```
P

A HO-CORA siCK

T : R A U M R J A U A R A A

P_1 : J A U A

P_2 : R A D

P_3 - R A U

P_4 : R A M

P_5 : R O S E

$$O(T (|P_1| + |P_2| + \cdots \cdots ''))$$

$$O(|P_1| + |P_2| + \cdots + |P_n| \cdot \Sigma + |T|)$$

P . A   P 6: CAA

P₂ . AB

P₃: BC

P₄: BCA

P₅: C

T. AABCACAB