



LPS; KMP

a b c a b d e a b a f k a b c

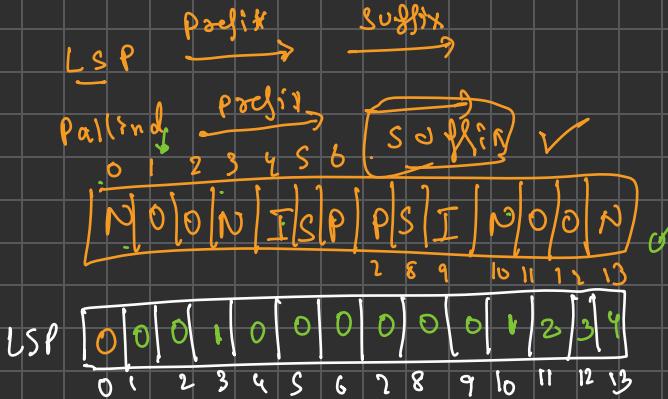
① a b c  $\Rightarrow$  Pallindrome  $\rightarrow$  Same  $\approx 3$

(1) a b c (2) PSI NOON ISP  $\rightarrow$  O(n)

c b a b c (1) PSI NOON ISP  $\rightarrow$  (2)  $\Rightarrow$  (3)  $\rightarrow$  (4)  $O(n^2)$

NOON ISP PSI NOON

7 - 4  $\Rightarrow$  (3)  $\rightarrow$  Start part Ka  
Longest pallindrome



7.  $\Rightarrow$  (3)  
y LONGEST  
pallindrome

(2) a-a-c-e-c-e-c-a-a-a-a

9  
1

aa a a c e c e c a a a a  $\Rightarrow$  (2)

(2)  $\Leftarrow$

7

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
[a|a|c|e|c|a|a|a|a|a|a|a|a|a|a|c|e|c|a|a]  $\Rightarrow$

[0|1|0|0|0|1|2|2|2|2|2|2|2|3|4|5|6|7]

(1 PS)  $\Rightarrow$

separator (\$),

0 1 2 3 4 5 6  
[a|a|a|a|a|a]

[0|1|2|3|4|5]

3,1  $\rightarrow$  (2)

(5)

ex

aaa

3-3  $\Rightarrow$  (1)

$\Rightarrow$  div

a a a \$ a a a

0 1 2 0 1 2 (3)

b d c e a b c e a d b  
|  
|

b d a e c b a b c e a d b

$$a = abcd \quad b = cdabcdab$$

a b c d a b c d a b c d

1)  $a = x$        $b = xx$   
 $x x$

2)

$$\textcircled{2} \quad a = abc \quad b \Rightarrow deghi$$

6

abc abc abc abc

$\rightarrow$  \textcircled{3}

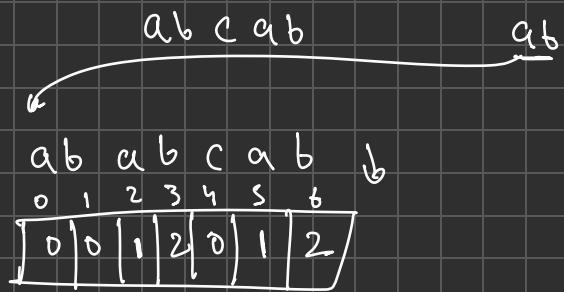
$$\textcircled{3} \quad a \Rightarrow abcd \xrightarrow{(4+1)} b \Rightarrow bdcacda$$

abcd abcd

~~(8) + 4 = 12~~ ~~(X)~~ ~~(X)~~

abcd abcd      cd abc ab  
bcd abcd      da bcd abc

abcd abcd



a a a a a a a  
\$  
a a a a a a a a  
[0] [1] [2] [3] [4] [5] [6] [7] [6]