



LPS: KMP

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

① a b c ⇒ Palindrome → Same ⇒ 3

c b a b c (2) P S I N O O N I S P (2) O(n)

c b a b c ⇒ (3) PSI N O O N I S P O(n²) (4)

N O O N I S P P S I N O O N

7 - 4 ⇒ (3) Start part ka Longest palindrome

L S P prefix suffix
Palind prefix Solving ✓

7. (4) ⇒ (3) Longest palind

N O O N I S P P S I N O O N

LSP
0 1 2 3 4 5 6 7 8 9 10 11 12 13
0 0 0 1 0 0 0 0 0 0 1 2 3 4

② aaacecaaaa

aaacecaaaa \Rightarrow ②

②

9, 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	c	e	c	a	a

0	1	0	0	0	1	2	2	2	2	2	2	3	4	5	6	7
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① PS \Rightarrow

separator (\$)

0	1	2	3	4	5	6
a	a	a	a	a	a	a

0	1	2	3	4	5
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3, \Rightarrow ⑤ \Rightarrow ② \Rightarrow ③ \Rightarrow ④ \Rightarrow ⑤ \Rightarrow ⑥ \Rightarrow ⑦ \Rightarrow ⑧ \Rightarrow ⑨ \Rightarrow ⑩ \Rightarrow ⑪ \Rightarrow ⑫ \Rightarrow ⑬ \Rightarrow ⑭ \Rightarrow ⑮ \Rightarrow ⑯ \Rightarrow ⑰ \Rightarrow ⑱ \Rightarrow ⑲ \Rightarrow ⑳ \Rightarrow ㉑ \Rightarrow ㉒ \Rightarrow ㉓ \Rightarrow ㉔ \Rightarrow ㉕ \Rightarrow ㉖ \Rightarrow ㉗ \Rightarrow ㉘ \Rightarrow ㉙ \Rightarrow ㉚ \Rightarrow ㉛ \Rightarrow ㉜ \Rightarrow ㉝ \Rightarrow ㉞ \Rightarrow ㉟ \Rightarrow ㊱ \Rightarrow ㊲ \Rightarrow ㊳ \Rightarrow ㊴ \Rightarrow ㊵ \Rightarrow ㊶ \Rightarrow ㊷ \Rightarrow ㊸ \Rightarrow ㊹ \Rightarrow ㊺ \Rightarrow ㊻ \Rightarrow ㊼ \Rightarrow ㊽ \Rightarrow ㊾ \Rightarrow ㊿

aa 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 = a b c d

b = c d a b c d a b

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

① a = x b = x x
 x x

②

② $a = abc$ $b \Rightarrow deghi$

G

abcabcabcabc

\rightarrow ⑦

③ $a \Rightarrow abcd$ $b \Rightarrow bdcacda$
 $\underbrace{\hspace{1.5cm}}_{(4+4)} \quad \underbrace{\hspace{1.5cm}}_{(8+4=12)} \quad \underbrace{\hspace{1.5cm}}_{\times} \quad \underbrace{\hspace{1.5cm}}_{\cancel{41}}$
 abcdabcd

abcdabcd

cdabcdab

bcdaabcd

dabcdabc

abcdabcd

