

Time complexity from /1-1.cpp/

n = length of string

Every case: $T(n) = c_1 + c_2 * (n/2) + c_3 + c_4$

Best case:

(If the length of string is 2, for loop only need do 1 time)

$O(c_1 + c_2 + c_3 + c_4) = 1$

Worst case:

$O(c_1 + c_2 * (n/2) + c_3 + c_4) = n$

Average case:

k = 輸入的資料量

$A(n) = k * \text{every case} / k = \text{every case}$