

Apple Sequences

There is a string of size n containing only 'A' and 'O'. 'A' stands for Apple, and 'O' stands for Orange. We have m number of spells, each spell allows us to convert an orange into an apple.

Find the longest sequence of apples you can make, given a string and the value of m .

Example 1:

Input:

`N = 5`

`M = 1`

`arr[] = 'AAOAO'`

Output: 4

Explanation: Changing the orange at 3rd position into an apple gives us the maximum possible answer.

Example 2:

Input:

`N = 5`

`M = 1`

`arr = 'AOOAO'`

Output: 2

Explanation: Changing any orange into an apple will give us a sequence of length 2.

Your Task:

You don't need to read input or print anything. Your task is to complete the function **appleSequence()** which takes the array in the form of a string, its size n , and an integer m as input parameters and returns the largest apple sequences after converting m oranges.

Expected Time Complexity: $O(n)$

Expected Auxiliary Space: $O(1)$

Constraints:

$1 \leq m \leq n \leq 10^6$