



STUDENT REPORT

DETAILS

Name

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Roll Number

3BR21CS002

EXPERIMENT

Title

COUNT AND PRINT THE NO.OF SUBSTRINGS

Description

Problem Statement:

You are given a string **str** of length n and an integer **k**. Your task is to count and print the number of substrings of **str** which contain at most **k** 0s and at most **k** 1s.

Note: if k = 0 then print 0.

Input Format:

The input consists of three lines:

- The first line contains an integer, i.e. **n**.
- The second line contains **n** space-separated integers representing the elements of the array **arr**.
- The third line contains the integer **k**.

The input will be read from the STDIN by the candidate.

Output Format:

Print the number of substrings of **str** which contain at most **k** 0s and at most **k** 1s.

The output will be matched to the candidate's output printed on the STDOUT.

Constraints:

- 1 <= **n** <= 10⁵
- 0 <= **k** <= 10²

Sample Input:

5
11010
1

Sample Output:

8

Explanation:

1,1,10,0,01,1,10,0 are the substrings.

Source Code:

```
n=int(input())
a=input().strip()
k=int(input().strip())
if k==0:
    print(0)
else:
    c0=c1=l=res=0
    for i in range(n):
        c0+=a[i]=="0"
        c1+=a[i]=="1"
        while c0>k or c1>k:
            c0-=a[l]=="0"
            c1-=a[l]=="1"
            l+=1
        res+=i-l+1
    print(res)
```

RESULT

6 / 6 Test Cases Passed | 100 %