**Little Shino and the coins**

Attempted by: **1768**

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Accuracy: **95%**

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Maximum Score: **20**

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39 Votes

Tag(s):

Easy

**PROBLEM**

**EDITORIAL**

**MY SUBMISSIONS**

**ANALYTICS**

Little Shino loves to play with coins. In the city she lives, there are 2626 different types of coins. Each coin is represented with a lowercase letter a,b,c,...,y,za,b,c,...,y,z. Shino has some number of coins and she placed them in some random sequence, SS, on the table. She is wondering how many pairs (i,j)(i,j) are there, where i≤ji≤j, such that number of distinct coins in sequence Si,Si+1,Si+2,...,Sj−1,SjSi,Si+1,Si+2,...,Sj−1,Sj is **exactly equal** to KK. Two coins of same type (same letters) are considered equal and two coins of different types (different letters) are considered distinct.

**Input:**  
First line contains one integer, KK.  
Second line contains a string, SS, consist of lowercase letters only.

**Output:**  
Print one integer, number of pairs (i,j)(i,j), where i≤ji≤j, such that number of distinct coins in sequence Si,Si+1,Si+2,...,Sj−1,SjSi,Si+1,Si+2,...,Sj−1,Sj is **exactly equal** to KK.

**Constraints:**  
1≤K≤261≤K≤26  
1≤|S|≤5∗1031≤|S|≤5∗103  
SS consists of lowercase letters only.

**SAMPLE INPUT**

3

abcaa

**SAMPLE OUTPUT**

5

**Explanation**

**Note:** S[i:j]S[i:j] denotes the sequence Si,Si+1,....,Sj−1,SjSi,Si+1,....,Sj−1,Sj  
Since, K=3K=3  
Possible pairs (i,j)(i,j) such that number of distinct coins in S[i:j]S[i:j] is **exactly equal** to KK are:  
(1,3)(1,3) and S[1:3]=S[1:3]=abc  
(1,4)(1,4) and S[1:4]=S[1:4]=abca  
(1,5)(1,5) and S[1:5]=S[1:5]=abcaa  
(2,4)(2,4) and S[2:4]=S[2:4]=bca  
(2,5)(2,5) and S[2:5]=S[2:5]=bcaa

So the answer is 55.

**Time Limit:**1.0 sec(s) for each input file.

**Memory Limit:**256 MB

**Source Limit:**1024 KB

**Marking Scheme:**Marks are awarded when all the testcases pass.

**Allowed Languages:**C, C++, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Scala 2.11.8, Swift, Visual Basic

<https://www.hackerearth.com/practice/basic-programming/implementation/basics-of-implementation/practice-problems/algorithm/little-shino-and-coins-3/>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static void Main(string[] args)

{

int k = int.Parse(Console.ReadLine());

string s = Console.ReadLine();

int ans = 0;

for (int i = 0; i < s.Length; i++)

{

HashSet<char> subs = new HashSet<char>();

for (int j = i; j < s.Length; j++)

{

subs.Add(s[j]);

if (subs.Count == k)

{

ans++;

}

}

}

Console.WriteLine(ans);

Console.ReadLine();

}

}

}