## Palindromes

A palindrome is a word, phrase, number or other sequence of units that has the property of reading the same in either direction, e.g. 'racecar', 'solos'.

## Task

You are given a number $k(2 \leq k \leq 30000)$ and a non-empty string $S$ whose length does not exceed 30000 lowercase letters.
We say two palindromes are different when they start from different positions. How many different palindromes of the length k does S contains?

## Input

The first line contains K. The second line contains S. K does not exceed the length of S.

## Output

The first and only line should consist of a single number - the number of palindromes found.

## Example

Input:
5
ababab

## Output:

2

