USA Computing Olympiad

OVERVIEW

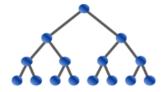
TRAINING

CONTESTS

HISTORY

STAFF

RESOURCES



USACO 2019 DECEMBER CONTEST, BRONZE PROBLEM 2. WHERE AM I?

Return to Problem List

Time Remaining: 3 hrs, 53 min, 34 sec

Not submitted yet	
	English (en) ▼
Farmer John has gone out for a walk down the road and thinks he may now be lost!	
Along the road there are N farms ($1 \le N \le 100$) in a row. Farms unfortunately do not have house numbers, r Farmer John to figure out his location along the road. However, each farm does have a colorful mailbox along road, so Farmer John hopes that if he looks at the colors of the mailboxes nearest to him, he can uniquely define the colors of the mailboxes of the mailboxes nearest to him, he can uniquely define the colors of the mailboxes of the mailboxes of the colors of the colors of the mailboxes of the colors	the side of the
Each mailbox color is specified by a letter in the range AZ, so the sequence of N mailboxes down the road of by a string of length N containing letters in the range AZ. Some mailboxes may have the same colors as oth Farmer John wants to know what is the smallest value of K such that if he looks at any sequence of K conserved the can uniquely determine the location of that sequence along the road.	ner mailboxes.
For example, suppose the sequence of mailboxes along the road is 'ABCDABC'. Farmer John cannot set $K=$ 'ABC', there are two possible locations along the road where this consecutive set of colors might be. The sma works is $K=4$, since if he looks at any consecutive set of 4 mailboxes, this sequence of colors uniquely deteralong the road.	llest value of K that
INPUT FORMAT (file whereami.in):	
The first line of input contains N , and the second line contains a string of N characters, each in the range A	Z.
OUTPUT FORMAT (file whereami.out):	
Print a line containing a single integer, specifying the smallest value of K that solves Farmer John's problem.	
SAMPLE INPUT:	
7 ABCDABC	
SAMPLE OUTPUT:	
4	
Problem credits: Brian Dean	
Language: C ▼ Source File: Choose File No file chosen Submit Solution	