Question **1**

Correct

Marked out of 10.00

A rotation on a string is defined as removing first element and concatenating it at the end.

Given N, and an array of N strings, print the minimum no. of cumulative rotations on the strings so as to make all the strings equal.

If this is not possible return -1

Input format

· The first line contains N, the number of strings

· This is followed by N strings

Constraints

· $2 <= N <= 10^4$

· $3 <= $ string length $<= 100$

· All characters are in uppercase

Example Input

4

AABCD

CDAAB

DAABC

AABCD

Output

3

Explanation

· Finally, all the string will become aabcd. First and last strings require no rotations.

· Second string requires 2 rotations

· Last string requires 1 rotation

· Hence total rotations required are 3

For example:

Input	Result
4 AABCD CDAAB DAABC AABCD	3

Answer: (penalty regime: 0 %)

```
 1  test=int(input())
 2  l=[]
 3  count=0
 4  for i in range(test):
 5      s=input()
 6      l.append(s)
 7  for i in range(1,len(l)):
 8      rot=l[i]
 9      while(rot!=l[0]):
10          rot=rot[1:]+rot[:1]
11          count+=1
12  print(count)
13
14
```

	Input	Expected	Got	
✔	4 AABCD CDAAB DAABC AABCD	3	3	✔

Passed all tests! ✔