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 <= 104

· 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  lis=[]
 2  c=0
 3  for i in range(int(input())):
 4      lis.append(input())
 5  for i in range(1,len(lis)):
 6      target=lis[i]
 7      for j in range(len(target)):
 8          rot=target[j:]+target[:j]
 9          if lis[0]==rot:
10              c+=1
11  print(c)
```

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

Passed all tests! ✔