

Goals

You are a teacher who holds an assessment. After the assessment, you must give your students their score.

Input

Line 1: An integer N that determines the number of questions

Line 2: A string K that determines the key of the correct answer

Next N lines: A string A show your student's answer for each choice in a question, 'X' means the selected choice

Each answer contains 5 choices of A,B,C,D, and E

Note: If there are two or more selected choices in a question, it is counted as wrong.

Output

One line with the score of your student based on the key and their answer

Constraint

Score is an integer with maximum value 100

$N \leq 50$

Example

Input

5
ADBCE
X0000
000X0
0X000
00X00
0000X

Output

100
