

## A. Warning

Ramadan is here! It is now iftar time and there are  $N$  friends who are having iftar on the table together. They take turns in taking food from the table. As we all know, some people haven't yet been taught proper manners so they jump at the food without giving the others a chance.

So to make everything fair, they brought a robotic judge with them.

The robotic judge works as follows:

1. The robotic judge detects the one who is going to eat now.
2. Before he eats, the robotic judge checks if he has eaten more pieces than the sum of the total number of pieces eaten by the other people. If so, the judge warns him before he eats and then the person will still eat even if he gets a warning.
3. Repeat step 1 and 2 until all food pieces are eaten.

You will be given the order in which they take food. Write a program that calculates how many times the robotic judge has to warn them during the whole iftar.

### Input Format

The first line of input contains an integer  $N$ , which represents the number of pieces of food on the table. Each of the following  $N$  lines contains the name of the person that took one piece of food.

The names are strings of length  $L_i$  ( $1 \leq i \leq N$ ) and contains only lowercase letters of the English alphabet.

There will be at least two persons on the table. No two persons have the same name, each name represents one unique person.

### Output Format

Output the total number of warnings the judge will make during the iftar and until all pieces of food are eaten.

## Subtasks

### Subtask 1 – 18 Points

- ❖  $2 \leq N \leq 100$
- ❖  $L_1 = 1$
- ❖ Names are either "a" or "b" only.

### Subtask 2 – 22 Points

- ❖  $2 \leq N \leq 100$
- ❖  $L_1 = 1$

### Subtask 3 – 28 Points

- ❖  $2 \leq N \leq 100$
- ❖ Names are either "meshmesh" or "semsem" only.

### Subtask 4 – 32 Points

- ❖  $2 \leq N \leq 100$
- ❖  $1 \leq L_1 \leq 50$

## Examples

#	Input	Output
1	4 meshmesh semsem semsem semsem	1
2	17 a b b a a a c a b b c b b b b b b	4

## Examples Explanation

In the first example,

- At first meshmesh will take one piece of food, but before it is counted on him the total pieces of food taken by the others is **0** and his count is **0**, so there is no warning to meshmesh from the robotic judge here, since the count of pieces meshmesh has taken is not bigger than the total count of the others.

- Then semsem will take a piece, but before it is counted on him the total pieces of food taken by the others is **1** and his count is **0**, so there is no warning to semsem from the robotic judge here, since the count of pieces semsem has taken is not bigger than the total count of the others.
- Then semsem will take another piece, but before it is counted on him the total pieces of food taken by the others is **1** and his count is **1**, so there is no warning to semsem from the robotic judge here, since the count of pieces semsem has taken is not bigger than the total count of the others.
- Then semsem will take another piece, but before it is counted on him the total pieces of food taken by the others is **1** and his count is **2**, so there is a warning to semsem from the robotic judge here, since the count of pieces semsem has taken is bigger than the total count of the others.

So, only 1 warning happened during the iftar.