Alice and Bob plays again

Alice and Bob are (again) playing a game. This time they are playing with Binary arrays. A binary array is an array of integers whose elements can be either **0** or **1**. At the start of the game, each player would be given one identical binary array.

According to the game rules a player is allowed to perform exactly one type of operation. In each operation, (s)he can choose any element of his/her array and replace it with either **0** or **1**. A player can perform this operation any number of times.

The goal of the Alice is to obtain a representation where every **0**'s will be further to the right than any of the **1**'s; whereas the goal of Bob is to get every **1**'s further to the right than any of the **0**'s. The one who achieve this with minimum number of moves wins.

Your task is to determine the winner along with the number of toggle operations he/she performed.

Input

The first line of the input is an integer **t (1 <= t <= 1024)**, then **t** test cases follows. Each test case begins with an integer **n (0 <= n <= 512)**, denoting the length of the binary array. The next line contain the binary array of length **n.**

Output

The winner name followed by the minimum number of operations he/she performed to win the game. In case of a draw just output "Draw" (Quotes for clarity).

Example

Input:

```
3
5
11100
7
0001111
9
011010010
```

Output:

```
Alice 0
Bob 0
Alice 3
```