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Happy Ladybugs

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Problem

Submissions

Leaderboard

Discussions

Happy Ladybugs is a board game having the following properties:

- The board is represented by a string, b , of length n . The i^{th} character of the string, b_i , denotes the i^{th} cell of the board.
 - If b_i is an underscore (i.e., `_`), it means the i^{th} cell of the board is empty.
 - If b_i is an uppercase English alphabetic letter (i.e., `A` through `Z`), it means the i^{th} cell contains a ladybug of color b_i .
 - String b will not contain any other characters.
- A ladybug is *happy* only when its left or right adjacent cell (i.e., $b_{i\pm 1}$) is occupied by another ladybug having the same color.
- In a single move, you can move a ladybug from its current position to any empty cell.

Given the values of n and b for g games of Happy Ladybugs, determine if it's possible to make all the ladybugs happy. For each game, print **YES** on a new line if all the ladybugs can be made happy through some number of moves; otherwise, print **NO** to indicate that no number of moves will result in all the ladybugs being happy.

Input Format

The first line contains an integer, g , denoting the number of games. The $2 \cdot g$ subsequent lines describes a Happy Ladybugs game in the following format:

- The first line contains an integer, n , denoting the number of cells on the board.
- The second line contains a string, b , describing the n cells of the board.

Constraints

- $1 \leq g \leq 100$
- $1 \leq n \leq 100$
- It is guaranteed that string b consists of underscores and uppercase English alphabetic letters (i.e., `_` and `A` through `Z`).

Output Format

For each game, print **YES** on a new line if it is possible to make all the ladybugs *happy*; otherwise, print **NO**.

Sample Input

```
4
7
RBY_YBR
6
X_Y__X
2
_
6
B_RRBR
```

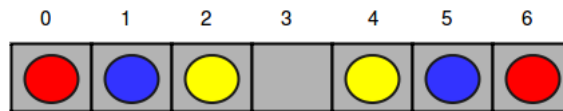
Sample Output

YES
NO
YES
YES

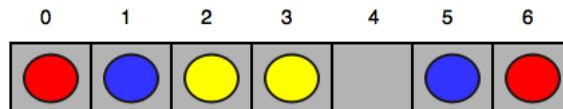
Explanation

The first three games of Happy Ladybugs are explained below:

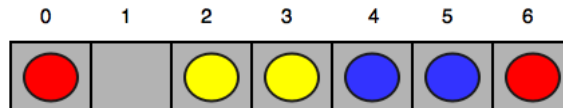
1. Initial board:



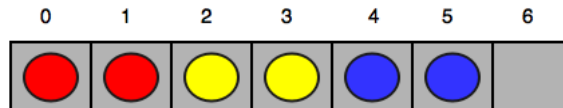
After the first move:



After the second move:



After the third move:



Now all the ladybugs are happy, so we print **YES** on a new line.

2. There is no way to make the ladybug having color **Y** happy, so we print **NO** on a new line.

3. There are no unhappy ladybugs, so we print **YES** on a new line.

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Contest ends in 4 days

Submissions: 4333

Max Score: 27

Difficulty: Easy

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☆☆☆☆☆

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Python 3



edit

```
1 #!/bin/python3
2
3 import sys
4
5
6 Q = int(input().strip())
7 for a0 in range(Q):
8     n = int(input().strip())
9     b = input().strip()
10
```

Line: 1 Col: 1

 [Upload Code as File](#)☐ **Test against custom input**

Run Code

Submit Code

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