Problem S2: Heavy-Light Composition

Problem Description
In a string containing only lowercase letters of the alphabet ("a" through "z"), we say a letter is *heavy* if it appears more than once in the string, and *light* otherwise.

We will be given a number of strings. For each string, we would like to determine whether the letters of the string alternate between light and heavy.

Input Specification
The first line of input will consist of two positive integers T and N, representing the number of strings and the length of each string.

The next T lines each contain a sequence of N lowercase letters of the alphabet.

The following table shows how the available 15 marks are distributed:

Marks	**Bounds on T**	**Bounds on N**	**Other Restrictions**
5	$2 \leq T \leq 4$	$2 \leq N \leq 4$	Only the letters "a" and "b" will be used
5	$2 \leq T \leq 10$	$2 \leq N \leq 30$	None
2	$2 \leq T \leq 100$	$2 \leq N \leq 100$	Only the letter "a" will be heavy; all other letters are light
3	$2 \leq T \leq 10\,000$	$2 \leq N \leq 100$	None

Output Specification
Output T lines, where each line will be either `T` or `F`. If the i-th input string does alternate between light and heavy letters, the i-th line of output should be `T`; and otherwise, the i-th line of output should be `F`.

Sample Input 1
```
3 4
abcb
bcbb
babc
```

Output for Sample Input 1
```
T
F
T
```

La version française figure à la suite de la version anglaise.

Explanation of Output for Sample Input 1
The first string is composed of a light letter, then a heavy letter, then a light letter, and then a heavy letter.

The second string ends in two consecutive heavy letters.

The third string is composed of a heavy letter, then a light letter, then a heavy letter, and then a light letter.

Sample Input 2

```
2 3
abc
bcb
```

Output for Sample Input 2

```
F
T
```

Explanation of Output for Sample Input 2
The first string is composed of all light letters.

The second string is composed of a heavy letter, then a light letter, and then a heavy letter.

La version française figure à la suite de la version anglaise.