

Funny String

Suppose you have some string S having length N that is indexed from 0 to $N-1$. You also have some string R that is *the reverse* of string S . S is *funny* if the condition $|S[j]-S[j-1]| = |R[j]-R[j-1]|$ is true for every j from 1 to $N-1$.

Note: For some string S , $S[j]$ denotes the **ASCII** value of the j^{th} zero-indexed character in S . The *absolute value* of some integer x is written as $|x|$.

Input Format

The first line contains an integer, T (the number of test cases).
The T subsequent lines each contain a string, where the i^{th} line is string S_i .

Constraints

- $1 \leq T \leq 10$
- $0 \leq i \leq T-1$
- $2 \leq \text{length of } S_i \leq 10000$

Output Format

For each S_i , print **Funny** or **Not Funny** on a new line.

Sample Input

```
2
acxz
bcxz
```

Sample Output

```
Funny
Not Funny
```

Explanation

Test Case 0: $S_0 = \text{"acxz"}$
 $|c-a| = 2 = |x-z|$
 $|x-c| = 21 = |c-x|$
 $|z-x| = 2 = |a-c|$
We print **Funny**.

Test Case 1: $S_1 = \text{"bcxz"}$
 $|c-b| = 1$, but $|x-z| = 2$
We stop evaluating the string (as $|c-b| \neq |x-z|$), and print **Not Funny**.