

Funny String

Suppose you have a String, S , of 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 $|S[i] - S[i - 1]| = |R[i] - R[i - 1]|$ is true for every character i from 1 to $N - 1$.

Note: For some String S , $S[i]$ denotes the [ASCII](#) value of the i^{th} 0 -indexed character in S . The *absolute value* of an integer, x , is written as $|x|$.

Input Format

The first line contains an integer, T (the number of test cases).

Each line i of the T subsequent lines contain a string, S .

Constraints

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

Output Format

For each String S_j (where $0 \leq j \leq T - 1$), print whether it is **Funny** or **Not Funny** on a new line.

Sample Input

```
2
acxz
bcxz
```

Sample Output

```
Funny
Not Funny
```

Explanation

Test Case 0: $S = \text{"acxz"}$

$$|c - a| = 2 = |x - z|$$

$$|x - c| = 21 = |c - x|$$

$$|z - x| = 2 = |a - c|$$

As each comparison is equal, we print **Funny**.

Test Case 1: $S = \text{"bcxz"}$

$$|c - b| = 1, \text{ but } |x - z| = 2$$

At this point, we stop evaluating S (as $|c - b| \neq |x - z|$) and print **Not Funny**.