

# 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:*  $S = \text{"bcxz"}$   
 $|c - b| = 1$ , but  $|x - z| = 2$   
At this point, we stop evaluating  $S$  (as  $|c - b| \neq |x - z|$ ) and print **Not Funny**.