

Problem B. Spell Check

Time Limit 1000 ms

Mem Limit 262144 kB

Timur likes his name. As a spelling of his name, he allows any permutation of the letters of the name. For example, the following strings are valid spellings of his name: `Timur`, `miurT`, `Trumi`, `mriTu`. Note that the correct spelling must have uppercased `T` and lowercased other letters.

Today he wrote string s of length n consisting only of uppercase or lowercase Latin letters. He asks you to check if s is the correct spelling of his name.

Input

The first line of the input contains an integer t ($1 \leq t \leq 10^3$) — the number of test cases.

The first line of each test case contains an integer n ($1 \leq n \leq 10$) — the length of string s .

The second line of each test case contains a string s consisting of only uppercase or lowercase Latin characters.

Output

For each test case, output `"YES"` (without quotes) if s satisfies the condition, and `"NO"` (without quotes) otherwise.

You can output the answer in any case (for example, the strings `"yEs"`, `"yes"`, `"Yes"` and `"YES"` will be recognized as a positive answer).

Examples

Input	Output
10	YES
5	YES
Timur	YES
5	YES
miurT	NO
5	NO
Trumi	NO
5	NO
mriTu	NO
5	NO
timur	
4	
Timr	
6	
Timuur	
10	
codeforces	
10	
TimurTimur	
5	
TIMUR	