

A. Cards

time limit per test: 2 seconds
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

When Serezha was three years old, he was given a set of cards with letters for his birthday. They were arranged into words in the way which formed the boy's mother favorite number in binary notation. Serezha started playing with them immediately and shuffled them because he wasn't yet able to read. His father decided to rearrange them. Help him restore the original number, on condition that it was the maximum possible one.

Input

The first line contains a single integer n ($1 \leq n \leq 10^5$) — the length of the string. The second line contains a string consisting of English lowercase letters: 'z', 'e', 'r', 'o' and 'n'.

It is guaranteed that it is possible to rearrange the letters in such a way that they form a sequence of words, each being either "zero" which corresponds to the digit 0 or "one" which corresponds to the digit 1.

Output

Print the maximum possible number in binary notation. Print binary digits separated by a space. The leading zeroes are allowed.

Examples

input	Copy
4 ezor	
output	Copy
0	
input	Copy
10 nznnooeoer	
output	Copy
1 1 0	

Note

In the first example, the correct initial ordering is "zero".

In the second example, the correct initial ordering is "oneonezero".




Codeforces Round #586 (Div. 1 + Div. 2)**Finished**[→ Virtual participation](#)

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