



Separate the Numbers

by DmitriyH

Problem

Submissions

Leaderboard

Discussions

A numeric string, s , is *beautiful* if it can be split into a sequence of two or more positive integers, a_1, a_2, \dots, a_n , satisfying the following conditions:

1. $a_i - a_{i-1} = 1$ for any $1 < i \leq n$ (i.e., each element in the sequence is 1 more than the previous element).
2. No a_i contains a leading zero. For example, we can split $s = 10203$ into the sequence $\{1, 02, 03\}$, but it is *not* beautiful because **02** and **03** have leading zeroes.
3. The contents of the sequence cannot be rearranged. For example, we can split $s = 312$ into the sequence $\{3, 1, 2\}$, but it is not beautiful because it breaks our first constraint (i.e., $1 - 3 \neq 1$).

The diagram below depicts some beautiful strings:

$$\begin{aligned}
 \text{"1234"} &= \text{"1"} + \text{"2"} + \text{"3"} + \text{"4"} \\
 \text{"91011"} &= \text{"9"} + \text{"10"} + \text{"11"} \\
 \text{"99100"} &= \text{"99"} + \text{"100"}
 \end{aligned}$$

You must perform q queries, where each query consists of some string s . For each query, print whether or not the string is beautiful on a new line. If it's beautiful, print YES x , where x is the first number of the increasing sequence (if there are multiple such values of x , choose the smallest); otherwise, print NO instead.

Input Format

The first line contains an integer denoting q (the number of strings to evaluate).
Each of the q subsequent lines contains some string s for a query.

Constraints

- $1 \leq q \leq 10$
- $1 \leq |s| \leq 32$
- Each character in s is a decimal digit from 0 to 9 (inclusive).

Output Format

For each query, print its answer on a new line (i.e., either YES x where x is the smallest first number of the increasing sequence, or NO).

Sample Input 0

```

7
1234
91011
99100
101103
010203
13
1

```

Sample Output 0

```
YES 1
YES 9
YES 99
NO
NO
NO
NO
```

Explanation 0

The first three numbers are beautiful (see the diagram above). The remaining numbers are not beautiful:

- For $s = 101103$, all possible splits violate the first and/or second conditions.
- For $s = 010203$, it starts with a zero so all possible splits violate the second condition.
- For $s = 13$, the only possible split is $\{1, 3\}$, which violates the first condition.
- For $s = 1$, there are no possible splits because s only has one digit.

[f](#) [t](#) [in](#)

Contest ends in a day

Submissions: 1823

Max Score: 20

Difficulty: Easy

Rate This Challenge:

[More](#)

Current Buffer (saved locally, editable)

C#



```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7     static void Main(String[] args) {
8         int q = Convert.ToInt32(Console.ReadLine());
9         for(int a0 = 0; a0 < q; a0++){
10             string s = Console.ReadLine();
11             // your code goes here
12         }
13     }
14 }
15 }
```

Line: 1 Col: 1

[Upload Code as File](#)☐ Test against custom input

Run Code

Submit Code

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.

[Contest Calendar](#) | [Interview Prep](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)