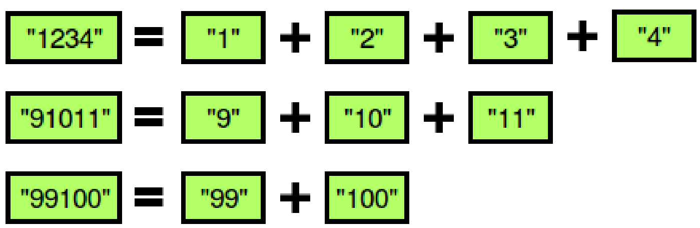
Separate the Numbers

A numeric string, s, is *beautiful* if it can be split into a sequence of two or more positive integers, $a[1], a[2], \ldots, a[n]$, 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:



Perform q queries where each query consists of some integer string s. For each query, print whether or not the string is beautiful on a new line. If it is 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`.

Function Description

Complete the *separateNumbers* function in the editor below.

separateNumbers has the following parameter:

- *s*: an integer value represented as a string

Prints

- *string:* Print a string as described above. Return nothing.

Input Format

The first line contains an integer q, the number of strings to evaluate.
Each of the next q lines contains an integer string s to query.

Constraints

- $1 \leq q \leq 10$
- $1 \leq |s| \leq 32$
- $s[i] \in [0-9]$

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.

Sample Input 1

```
4
99910001001
7891011
9899100
999100010001
```

Sample Output 1

```
YES 999
YES 7
YES 98
NO
```