We say that a natural number is *upward* if its digits fulfill the following property: on the right of a 0 can only be a 1, on the right of a 1 can only be a 2, on the right of a 2 can only be a 3, …, on the right of a 8 can only be a 9 and on the right of a 9 can only be a 0. For instance, 34567 and 8901 are upward, but 1223 and 245 are not.

Your task is to write a program that, given a sequence of natural numbers, indicates if this contains two or more consecutive upward numbers.

Your program must include the function

```latex
\begin{verbatim}
bool is_upward(int n);
\end{verbatim}
```

that indicates if a natural number \( n \) is upward.

**Input**

The input is a sequence of natural numbers.

**Output**

If the input contains two upward consecutive numbers, your program must print “YES” in a line; otherwise print “NO” in a line.

**Sample input 1**

1234 4321 4554 2345 8901 123 6784

**Sample output 1**

YES

**Sample input 2**

Sample output 2

NO

**Sample input 3**

90 0

**Sample output 3**

YES

**Problem information**

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Generation : 2023-07-14 17:53:47

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