
Lines in order (2)

P49603_en

Write a program that, given a sequence of lines with words, tells which is the last line that has the words in increasing (lexicographic) order.

Input

Input consists of a sequence of lines with words. Each line begins with a number n , followed by n words made up of only lowercase letters.

Output

Print the index of the last line with the words in (not necessary strictly) increasing order. If there is no such line, tell so. Follow the format of the examples.

Sample input 1

```
5 i am not in order
2 neither me
4 i yes yes yes
1 idem
```

Sample output 1

```
The last line in increasing order is 4.
```

Sample input 2

```
4 one two three four
5 e d c b a
```

Sample output 2

```
There is no line in increasing order.
```

Sample input 3

```
0
```

Sample output 3

```
The last line in increasing order is 1.
```

Problem information

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