Little Mirko wasn't paying attention in math class, so the teacher has decided to give him a tedious assignment to solve during the weekend.

The teacher has given him a text consisting of **N** lines, containing only digits and lower case letters of the English alphabet. Mirko has to find all numbers in the text and print them out in a **nondecreasing sequence**. He also has to **omit** any **leading zeros** that the numbers may have in the text.

The numbers can be uniquely determined by scanning through the text and always taking the largest possible number, i.e. delimited only by letters or line beginnings/ends. For example, the solution of **01a2b3456cde478** is **1**, **2**, **478**, **3456**.

Since Mirko is as slow as the snail from the previous task, he has asked you to write him a program to quickly solve his assignment, so that he can go play with Slavko as soon as possible.

INPUT

The first line of input contains the integer **N** ($1 \leq \mathbf{N} \leq 100$), the number of lines of the text.

The next **N** lines contain the text, consisting exclusively of lowercase English letters and decimal digits. Each line of the text is at most 100 characters long.

OUTPUT

The output must contain **M** lines, where **M** is the number of numbers found in the provided text. Each line must contain a single number from the text. The numbers must be arranged in a nondecreasing sequence.

Note: The test data will ensure that **M** will never exceed 500.

SAMPLE TESTS

input	**input**	**input**
2 lo3za4 01 **output** 1 3 4	4 43silos0 zita002 le2sim 231233 **output** 0 2 2 43 231233	4 01bond 02james007 03bond 04austinpowers000 **output** 0 1 2 3 4 7