## Different sums

Wersja polska
English version

## Input

The input consist of unknown number of tests. Each test is a line with one integer $\mathbf{x}(0<=x<25)$. The input ends with $\mathbf{x}=\mathbf{0}$ (for which You shouldn't print anything).

## Output

For each test You should print all possible non-decreasing sequences of integers (which may occur more than one time) which totalled equal $\mathbf{x}$. In each sequence the i-th number should be greater than, or equal to, the preceding number. The sequences themselves should also be sorted into numerically ascending order.

## Example

Input:
1
2
3
4
5
0

## Output:

1
11
2
111
12
3
1111
112
13
22
4
11111
1112
113
122
14
23
5
Special thanks to Łukasz Kuszner for the concept of this task.

