Ivancho had a **strictly increasing** sequence of positive integers a1, a2, … , an . He used that sequence to build a new one s1, s2, … , sn , where si is the sum of the digits of ai. Unfortunately, Ivancho lost the original sequence and is now trying to recover it using the sequence s1, s2, … , sn . After many tries, he found out that the original sequence could not be unambiguously determined. However, he wants to find such a sequence, **but also, he desires the last integer in the sequence an to be minimal.**

Help him find the desired sequence. It is guaranteed that such a sequence always exists.

**Input**

The first line of the input file sequence.in contains of one integer **N** – the number of integers in the sequence.

Then N lines follow containing s1, s2, … , sn  - the elements of the new sequence.

**Output**

In the output file sequence.out print N integers, one per line – the elements of the desired sequence, meeting the above conditions.

The sequence should be strictly increasing. The sum of digits of the *i*-th number should be equal to si.

If there are multiple sequences with least possible number an,print any of them.

**Constraints**

1 ≤ N ≤ 100

1 ≤ si ≤ 100

**Time limit: 1.0 sec**

**Memory limit: 256 MB**

**Sample tests**

|  |  |
| --- | --- |
| **Input (sequence.in)** | **Output (sequence.out)** |
| 4  1  2  3  1 | 1  2  3  10 |
| 3  10  7  1 | 19  25  100 |