Cardinality

Problem code: CARDINAL

You have a set of unique numbers. You are trying to find a **subset** of this set such that **no two numbers in the subset have a common digit**. There will of course be several such subsets. You are interested in the subset with the **maximum sum**. The sum of a subset is defined as the sum of the numbers in the subset.

In fact, you are most interested in the **cardinality** - that is, the number of elements - of the subset with the **maximum sum**. Of course there may be several such subsets with the same **maximum sum**. Find the **cardinality** of the subset with the **most elements** among such sets.

Refer to the explanation section for more clarity.

Input

There will be several test cases. Each test case is described in two lines. The first line contains the number **N**, the number of numbers in the set given to you. The second line contains **N** space separated positive integers, $A_1, A_2 ..., A_N$. The input is terminated by **EOF**.

Output

For each test case, output a single line. The line should contain a single integer which denotes the **cardinality of the set** that satisfies all the requirements in the problem statement.

Constraints

$1 \le N \le 100$
$1 \le A_i \le 1000000000$
No two A_i's will be same.
There will be at most 100 test cases.

Sample Input

```
3
7 17 10
2
12 29
3
1 2 12
```

Sample Output

```
2
1
1
```

Explanation

In the first test case, the maximum sum possible is **17**. There are two ways to achieve that sum. **{7, 10}**, with a **cardinality of 2**. **{17}**, with a **cardinality of 1**. Hence, the answer is **2**, since it is more.

In the second test case, we can select only **1** number due to the constraint that **the numbers in the subset should not share any digits**. The answer is of course **1**, for the subset **{29}**.

Note that a subset of cardinality **2** is possible, **{1, 2}**. But, its sum is only **3**. The sum of the subset **{12}** is **12**, which is the maximum possible. Hence the answer is the cardinality of the set **{12}**, which is **1**.

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