Interval covering   P37902_en

Given several real numbers $x_1, \ldots, x_n$, we want to find the smallest possible set of closed intervals of length 1 that cover those real numbers. In other words, we must find a set of intervals $\{[y_1, y_1 + 1], \ldots, [y_m, y_m + 1]\}$ such that

- for every x_i, there exists some j such that $x_i \in [y_j, y_j + 1]$;

- m is minimum.

For instance, if the x_i's are $1.4, 1.9, 2.3$ i 2.7, a possible solution is $\{[1.2, 2.2], [1.8, 2.8]\}$, because every x_i is inside of (at least) one of the two intervals, and it is not possible to cover the four real numbers with only one interval.

Input

Input consists of several cases, each with a number n followed by n different real numbers. Assume $n \leq 10^5$.

Output

For every case, print the minimum number of closed intervals of length 1 that cover the given real numbers.

Sample input

```
4  1.4 1.9 2.3 2.7
6  1.75 3.5 0.5 3 1.5 0.2
2  -2.5 -3.5
```

Sample output

```
2
3
1
```

Problem information

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