Consecutive Numbers

Problem Statement

Given an array of integers, you need to find the length of the longest consecutive integer sequence. A sequence of the longest consecutive integers from an array need not be contiguous. **For example** from the following array:

```
7 3 5 9 1 2
```

The longest consecutive sequence of numbers is:

```
1 2 3
```

Therefore, your answer should be 3.

Input Format

First line of input will have the number of testcase *T*. For each test case, the first line will contain the length of the array *N* and the second line will have the array elements A_i.

Constraints

$1 <= T <= 1800$

$1 <= N <= 1100$

$1 <= A_i <= 10000$, where A_i is the i^{th} element in the array A.

Output Format

For each test case, print the length of the longest consecutive integer sequence.

Sample Input

```
1
7
9 2 4 5 2 3 10
```

Sample Output

```
4
```

Explanation

The longest consecutive integer sequence is 2 3 4 5, the length of which is 4.