**Longest Consecutive Subsequence**

Submissions: [5850](https://practice.geeksforgeeks.org/problem_submissions.php?pid=700406)  Accuracy:

27.41%

   Difficulty: [Easy](https://practice.geeksforgeeks.org/Easy/1/0/)   Marks: 2

Associated Course(s): [Interview Preparation](https://practice.geeksforgeeks.org/courses/interview-preparation/)

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Given an array **A** of integers. The task is to complete the function which returns an integer denoting the length of the longest sub-sequence such that elements in the sub-sequence are consecutive integers, the consecutive numbers can be in any order.

**Input:**  
The first line of input contains an integer T denoting the no of test cases. Then T test cases follow. Each test case contains an integer N. Then in the next line are N space separated values of the array A.

**Output:**  
For each test case in a new line output will be the length of the longest consecutive increasing sub-sequence present in the array A[ ].

**Constraints:**  
1 <= T <= 100  
1 <= N <= 106  
1 <= Ai<= 108

**Example(To be used only for expected output):  
Input:**  
2  
7  
1 9 3 10 4 20 2  
11  
36 41 56 35 44 33 34 92 43 32 42  
**Output:**  
4  
5

**Explanation:  
Testcase 1:** Logest consecutive subsequence is 1, 2, 3, 4 of length 4.  
  
**Note:**The **Input/Ouput** format and **Example** given are used for system's internal purpose, and should be used by a user for **Expected Output** only. As it is a function problem, hence a user should not read any input from stdin/console. The task is to complete the function specified, and not to write the full code.

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/longest-consecutive-subsequence/1#ExpectOP) option \*\*

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<https://practice.geeksforgeeks.org/problems/longest-consecutive-subsequence/1>

1. #include <iostream>
2. #include <stdio.h>
3. #include <set>
5. using namespace std;
7. int findLongestConseqSubseq(int arr[], int n)
8. {
9. //Your code here
10. set<int> hash;
11. for(int  i = 0; i < n; i++) {
12. hash.insert(arr[i]);
13. }
15. int max\_cont = 0;
16. for(int i = 0; i < n; i++) {
17. if(hash.find(arr[i] - 1) == hash.end()) {
18. int j = arr[i];
19. int cont = 1;
20. while(hash.find(j + 1) != hash.end()) {
21. j++;
22. cont++;
23. }
24. max\_cont = max(max\_cont, cont);
25. }
26. }
28. return max\_cont;
29. }
31. int main()
32. {
33. int t;
34. scanf("%d", &t);
36. while(t--) {
37. int n;
38. scanf("%d", &n);
39. int arr[n];
40. for(int i =0; i<n; i++) {
41. scanf("%d", &arr[i]);
42. }
43. cout << findLongestConseqSubseq(arr, n) << endl;
44. }
46. return 0;
47. }