● **Micro and Array Update**

SOLVE LATER

Attempted by: **31358** / Accuracy: **72%** / Maximum Score: **10** /
★★★★☆ 752 Votes

Tag(s): Ad-Hoc, Data Structures, One-dimensional, Very-Easy

PROBLEM   EDITORIAL   MY SUBMISSIONS   ANALYTICS

Micro purchased an array A having N integer values. After playing it for a while, he got bored of it and decided to update value of its element. In one second he can increase value of each array element by 1. He wants each array element's value to become greater than or equal to K. Please help Micro to find out the minimum amount of time it will take, for him to do so.

Input:
First line consists of a single integer, T, denoting the number of test cases.
First line of each test case consists of two space separated integers denoting N and K.
Second line of each test case consists of N space separated integers denoting the array A.

Output:
For each test case, print the minimum time in which all array elements will become greater than or equal to K. Print a new line after each test case.

Constraints:
$1 \le T \le 5$
$1 \le N \le 10^5$
$1 \le A[i], K \le 10^6$

SAMPLE INPUT ⸹ ⸦	SAMPLE OUTPUT ⸹ ⸦
2 3 4 1 2 5 3 2 2 5 5	3 0

Explanation

For first test case,
After 1 second, array will be $\{2, 3, 6\}$
After 2 second, array will be $\{3, 4, 7\}$
After 3 second, array will be $\{4, 5, 8\}$

So it will take 3 second for all array elements to become greater than or equal to 4.

BEST SUBMISSIONS

LANGUAGE: C (gcc 5.4.0)

⏱ TIME (sec)   📋 MEMORY (KiB)
2.01171   **64**

by Rangarao Devanaboina

VIEW BEST SUBMISSION   VIEW ALL SUBMISSION

CONTRIBUTOR

AUTHOR
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TESTER
Utkarsh Saxena

THIS PROBLEM WAS ASKED IN

h   CHALLENGE NAME
March Easy '17   ⌄

SOCIAL SHARE

f   🐦   in

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded when all the testcases pass.
Allowed Languages:	Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, TypeScript, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file.

Save   C++14 (g++ 5.4.0)

```cpp
1   // Micro and Array Update
2   #include<iostream>
3   #include <bits/stdc++.h>
4
5   using namespace std;
6
7   int main(){
8       ios_base::sync_with_stdio(false);
9       cin.tie(NULL);
10      cout.tie(NULL);
11
12      int testCases;
13      cin>>testCases;
14      for(int t=0;t<testCases;t++){
15          int n,k;
16          cin>>n>>k;
17          // int arr[n];
18          int smallest = 99999;
19          for(int i=0;i<n;i++){
20              int temp;
21              cin>>temp;
22              if(temp<smallest)
23                  smallest = temp;
24          }
25
26          if(smallest > k ){
```

1:1 vscode

▼ Provide custom input

COMPILE & TEST   SUBMIT

Your Rating: ★★★★★

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PROGRAMMERS WHO SOLVED THIS PROBLEM ALSO SOLVED

Binary Queries
Attempted By: **21871** / Accuracy: **25**

Monk And Rotation
Attempted By: **16566** / Accuracy: **90**

Pairs Having Similar El...
Attempted By: **2574** / Accuracy: **29**

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