**Maximum Difference**

[array](http://www.practice.geeksforgeeks.org/tag-page.php?tag=array&isCmp=0)

Given an array C[] of integers, find out the maximum difference between any two elements such that larger element appears after the smaller number in C[].  
Examples: If array is [2, 3, 10, 6, 4, 8, 1] then returned value should be 8 (Diff between 10 and 2). If array is [ 7, 9, 5, 6, 3, 2 ] then returned value should be 2 (Diff between 7 and 9).

**Input:**

The first line of input contains an integer T denoting the number of test cases.  
The first line of each test case is N,N is the size of array.  
The second line of each test case contains N input C[i].  
  
**Output:**

Print the maximum difference between two element. Otherwise print -1  
  
**Constraints:**

1 ≤ T ≤ 80  
2 ≤ N ≤ 100  
1 ≤ C[i] ≤ 500

**Example:**

**Input:**  
2  
7  
2 3 10 6 4 8 1  
5  
1 2 90 10 110

**Output:**  
8  
109

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=567>

#include <iostream>

#include <stdio.h>

#include <algorithm>

#include <vector>

#include <limits.h>

using namespace std;

int main()

{

    int t;

    scanf("%d", &t);

    while(t--) {

        int n;

        scanf("%d", &n);

        int c[n];

        for(int i =0; i < n; i++) {

          scanf("%d", &c[i]);

        }

        int max\_dif=-1;

        for(int i =0; i < n - 1; i++) {

           for(int j =i+1; j<n; j++) {

              if(c[j] > c[i]) {

                 max\_dif = std::max(c[j] - c[i], max\_dif);

              }

           }

        }

        cout <<max\_dif << endl;

    }

}