**Minimum difference pair**

[Amazon](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Amazon&isCmp=1)

Given an unsorted array, find the minimum difference between any pair in given array.

**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, the size of array. Second line of the test case is the Array.  
  
**Output:**

Print the minimum difference between any two pairs.  
  
**Constraints:**

1 ≤ T ≤ 30  
1 ≤ N ≤ 100  
1 ≤ arr[i] ≤ 100000  
  
**Example:  
Input:**  
2  
5  
2 4 5 7 9  
10  
87 32 99 75 56 43 21 10 68 49

**Output:**  
1  
6

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

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=606>

#include <iostream>

#include <stdio.h>

#include <limits.h>

using namespace std;

int main() {

//code

int t;

scanf("%d", &t);

while(t--) {

int n;

scanf("%d", &n);

int arr[n];

for(int i =0; i < n; i++)

scanf("%d", &arr[i]);

int min\_dif=INT\_MAX;

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

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

if(std::abs(arr[i] - arr[j]) < min\_dif) {

min\_dif = std::abs(arr[i] - arr[j]);

}

}

}

printf("%d\n", min\_dif);

}

return 0;

}