**Two numbers with sum closest to zero**

[array](http://www.practice.geeksforgeeks.org/tag-page.php?tag=array&isCmp=0)[Amazon](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Amazon&isCmp=1)[Fab](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Fab&isCmp=1)[Microsoft](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Microsoft&isCmp=1)[Snapdeal](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Snapdeal&isCmp=1)

**Problem Description:**  
Given an integer array, you need to find the two elements such that their sum is closest to zero.  
   
**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  
Each test case consist of a N integers which are the array elements.  
   
**Output:**  
Print the two numbers in ascending order such that their sum is closest to zero.  
   
**Constraints:**  
1 ≤ T ≤ 100  
1 ≤ N ≤ 1000  
-100007 ≤ a[i] ≤ 100007  
**Example:  
Input**  
3  
3  
-8 -66 -60    
6  
-21 -67 -37 -18 4 -65    
2  
-24 -73    
   
**Output**  
-60 -8  
-18 4  
-73 -24

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

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=354>

#include <iostream>

#include <stdio.h>

#include <vector>

#include <algorithm>

#include <limits>

using namespace std;

int main() {

    int t;

    scanf("%d", &t);

    while(t--) {

        int n ;

        scanf("%d", &n);

        std::vector<int> arr;

        //int arr[n];

        for(int i =0; i<n; i++) {

            int elem;

            scanf("%d", &elem);

            arr.push\_back(elem);

          //scanf("%d", &arr[i]);

        }

        std::sort(arr.begin(), arr.end());

        int min\_sum = INT\_MAX;

        std::vector<int> ans;

        ans.push\_back(0);

        ans.push\_back(0);

        for(int i =0; i<n; i++) {

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

               if(std::abs(arr[i] + arr[j]) < min\_sum) {

                    min\_sum = std::abs(arr[i] + arr[j]);

                    ans[0] = arr[i];

                    ans[1] = arr[j];

                }

            }

        }

        //printf("%d\n", min\_sum);

        std::sort(ans.begin(), ans.end());

        printf("%d %d**\n**", ans[0], ans[1]);

    }

     //system("pause");

    return 0;

}