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| **Three elements**    Problem code: ACM14KP5 | * [SUBMIT](https://www.codechef.com/submit/ACM14KP5) * [MY SUBMISSIONS](https://www.codechef.com/status/ACM14KP5,nacho0monllor) * [ALL SUBMISSIONS](https://www.codechef.com/status/ACM14KP5) |

**All submissions for this problem are available.**

Given an array **a[1..n]** with **n** positive integers. You can select any 3 different indices i, j, k and sum up the values **a[i], a[j], a[k]**. You need to output the maximum sum you can make by selecting some i, j, k.

**Input**

The first line contains an integer **T** indicating the number of test cases.

For each test case, the first line contains **n** indicating the size of array **a**.

Second line of each test case contains **n** space separated integers representing the array **a**.

**Output**

Output **T** lines in total. Each line starts with "Case #: " and followed by the maximum sum of 3 values. Here "#" is the number of the test case starting from 1.

**Constraints**

* **1** ≤ **T** ≤ **30**
* **3** ≤ **n** ≤ **100**
* **1** ≤ **a[i]** ≤ **10000**

**Example**

**Input:**

2

4

1 2 3 4

4

1 2 1 1

**Output:**

Case 1: 9

Case 2: 4

**Explanation**

**Test Case 1:**

You can select 2, 3, 4 and get the sum 2+3+4 = 9.

**Test Case 2:**

You can select 2, 1, 1 and get the sum 2+1+1 = 4.

<https://www.codechef.com/problems/ACM14KP5>

#include <iostream>

#include <cstdio>

#include <vector>

#include <stack>

#include <queue>

#include <string>

#include <cstring>

#include <map>

#include <cstdlib>

#include <algorithm>

#include <list>

#include <deque>

#include <bitset>

#include <cmath>

#include <functional>

#include <set>

int main() {

    int t;

    scanf("%d", &t);

    int cas=1;

    while(t--) {

      int n;

      scanf("%d", &n);

      int arr[n];

      for(int i =0; i<n; i++) {

          scanf("%d", &arr[i]);

      }

//también se puede hacer ordenando el array y tomando arr[len-1] + arr[len-2] + arr[len-3]

      int max\_sum=0;

      for(int i =0; i<n-2; i++) {

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

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

               max\_sum = std::max(max\_sum, arr[i] + arr[j] + arr[k]);

            }

          }

        }

       printf("Case %d: %d**\n**", cas, max\_sum );

       cas++;

    }

  return 0;

}