**Minimum sum of two elements from two arrays**

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Given two arrays a[] and b[] of same size.Your task is to find minimum sum of two elements such that they belong to different arrays and are not at same index in their arrays.

**Input:**  
The first line of input contains an integer T denoting the number of test cases. Then T test cases follow. Each test case contains an integer n denoting the size of the array. Then next two lines contains n space separated integers forming the arrays.  
  
**Output:**  
Output the minimum sum.  
**Constraints:**  
1<=T<=100  
1<=N<=100  
1<=a[i]<=1000  
1<=b[i]<=1000  
**Example:  
Input:**  
2  
5  
1 5 4 3 2  
2 1 4  5 3  
4  
1 2 3 4  
1 3 5 6  
**Output:**  
2  
3

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

<http://practice.geeksforgeeks.org/problems/minimum-sum-of-two-elements-from-two-arrays/0>

#include <iostream>

#include <stdio.h>

#include <vector>

using namespace std;

int sumas(int ar1[], int ar2[], int n)

{

// Complete this function

int min\_a = 1001, second\_a = 1001, min\_b = 1001, second\_b = 1001;

bool hay\_min\_a = false, hay\_min\_b = false;

int indmin\_a = 0, ind\_second\_a = 0, indmin\_b = 0, ind\_second\_b = 0;

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

{

if (!hay\_min\_a && ar1[i] < min\_a)

{

min\_a = ar1[i];

indmin\_a = i;

hay\_min\_a = true;

}

else if (hay\_min\_a && ar1[i] < min\_a)

{

second\_a = min\_a;

ind\_second\_a = i;

min\_a = ar1[i];

indmin\_a = i;

}

else if (hay\_min\_a && ar1[i] < second\_a && ar1[i] >= min\_a)

{

second\_a = ar1[i];

ind\_second\_a = i;

}

if (!hay\_min\_b && ar2[i] < min\_b)

{

min\_b = ar2[i];

indmin\_b = i;

hay\_min\_b = true;

}

else if (hay\_min\_b && ar2[i] < min\_b)

{

second\_b = min\_b;

ind\_second\_b = i;

min\_b = ar2[i];

indmin\_b = i;

}

else if (hay\_min\_b && ar2[i] < second\_b && ar2[i] >= min\_b)

{

second\_b = ar2[i];

ind\_second\_b = i;

}

}

if (indmin\_a != indmin\_b)

{

return min\_a + min\_b;

}

return std::min(min\_a + second\_b, min\_b + second\_a);

}

int main() {

//code

int t;

scanf("%d", &t);

while(t-- > 0) {

int n;

scanf("%d", &n);

int a[n];

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

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

}

int b[n];

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

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

}

printf("%d\n", sumas(a,b,n));

}

return 0;

}