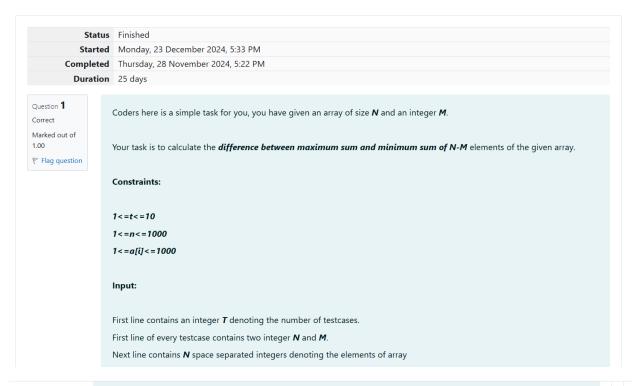
Week-08-Sorting Algorithms-Bubble and Selection

CODING

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Q1)



For every test case print your answer in new line SAMPLE INPUT 1 51 12345 SAMPLE OUTPUT 4 Explanation M is 1 and N is 5 so you have to calculate maximum and minimum sum using (5-1 =) 4 elements. Maximum sum using the 4 elements would be (2+3+4+5=)14. Minimum sum using the 4 elements would be (1+2+3+4=)10. Difference will be 14-10=4.

1 #include <stdio.h> #include <stdlib.h> #include <limits.h> int cmp(const void *a, const void *b) {
 return (*(int*)a - *(int*)b); int main() { 9 • int a, b, c;
scanf("%d", &a); while (a--) {
 scanf("%d", &b);
 scanf("%d", &c); int d[b]; for (int i = 0; i < b; i++) {
 scanf("%d", &d[i]);
}</pre> qsort(d, b, sizeof(int), cmp); int maS = 0; for (int i = c;i < b; i++) {
 maS += d[i];
}</pre> int miS = 0;
for (int i = 0;i < b-c;i++) {
 miS += d[i];
}</pre> printf("%d\n", (maS-miS));

```
39
40
41
41
3
42 }
```

	Input	Expected	Got	
~	1	4	4	~
	5 1			
	1 2 3 4 5			

Passed all tests! 🗸

Question **2**Correct
Marked out of 1.00

Flag question

A new deadly virus has infected large population of a planet. A brilliant scientist has discovered a new strain of virus which can cure this disease. Vaccine produced from this virus has various strength depending on midichlorians count. A person is cured only if midichlorians count in vaccine batch is more than midichlorians count of person. A doctor receives a new set of report which contains midichlorians count of each infected patient, Practo stores all vaccine doctor has and their midichlorians count. You need to determine if doctor can save all patients with the vaccines he has. The number of vaccines and patients are equal.

Input Format

First line contains the number of vaccines - N. Second line contains N integers, which are strength of vaccines. Third line contains N integers, which are midichlorians count of patients.

Output Format

Print a single line containing 'Yes' or 'No'.

Input Constraint

1 < N < 10

Strength of vaccines and midichlorians count of patients fit in integer.

SAMPLE INPUT

5

123 146 454 542 456

```
123 146 454 542 456
100 328 248 689 200
SAMPLE OUTPUT
No
Answer: (penalty regime: 0 %)
   1 #include <stdio.h>
       int main() {
    3 ,
            int a;
scanf("%d", &a);
            6
7
   10
  11
12
            int s = 1;
for (int i = 0; i < a; i++) {
    if (c[i] < b[i])
        s = 0;</pre>
   13
   14
15
   16
   17
   18
            (s == 1) ?printf("Yes"):printf("No");
   19 }
```

```
Q3)
    Question {\bf 3}
                           You are given an array of n integer numbers a_1, a_2, \ldots, a_n. Calculate the number of pair of indices (i, j) such that 1 \le i < j \le n
    Correct
                          and a_i \times a_j = 0.
    Marked out of
    1.00
                          Input format
    Flag question
                          - First line: n denoting the number of array elements
                           - Second line: n space separated integers a_1, a_2, \ldots, a_n.
                          Output format
                          Output the required number of pairs.
                          Constraints
                          1 \le n \le 10^6
                          1 \le a_i \le 10^9
                          SAMPLE INPUT
                          13143
                          SAMPLE OUTPUT
```

```
SAMPLE OUTPUT
Explanation
The 2 pair of indices are (1, 3) and (2,5).
Answer: (penalty regime: 0 %)
   int a;
scanf("%d", &a);
              int b[a];
for (int i = 0; i < a; i++) {
    scanf("%d", &b[i]);</pre>
   10
11
   12
               int c = 0;
               for (int i = 0; i < a; i++) {
   for (int j = i+1; j < a; j++) {
      if (b[i] == b[j]) {</pre>
   14 ·
   16
17
                         ,J[1]
C++;
}
    18
                    }
```

```
19
         }
        }
 20
 21
 22
        printf("%d", c);
 23 }
    Input
              Expected Got
    1 3 1 4 3
Passed all tests! 🗸
```

```
Question 4
Correct
Marked out of 1.00
Flag question
```

You are given an array **A** of non-negative integers of size **m**. Your task is to sort the array in non-decreasing order and print out the original indices of the new sorted array.

Example:

A={4,5,3,7,1}

After sorting the new array becomes $A=\{1,3,4,5,7\}$.

The required output should be "4 2 0 1 3"

INPUT:

The first line of input consists of the size of the array

The next line consists of the array of size m

OUTPUT:

Output consists of a single line of integers

CONSTRAINTS:

1<=m<=106 0<=A[i]<=106

NOTE: The indexing of the array starts with 0.

SAMPLE INPUT

5 4 5 3 7 1

SAMPLE OUTPUT

42013

Answer: (penalty regime: 0 %)