



STUDENT REPORT

DETAILS

Name

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Roll Number

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EXPERIMENT

Title

SALT AND PEPPER

Description

Problem Statement:

In a quaint village nestled between rolling hills, there were N different salt containers and N different pepper containers in two separate groups. Each container had a specific level of bitterness, represented by arrays A and B respectively. The task at hand was to form N combinations, each consisting of one salt container and one pepper container

However, there was a twist to the challenge. The objective was to arrange the combinations in such a way that the maximum bitterness level, which is the sum of salt and pepper quantities in each combination, was minimized. Print the lowest possible maximum bitterness level.

Input Format:

The first line contains a single integer N, the number of salt and pepper containers in each group.

The second line contains N space-separated integers, denoting the bitterness level of N salt containers.

The third line contains N space-separated integers, denoting the bitterness level of N pepper containers.

Sample Innput:

3
1 3 5
2 8 6

Sample Output:

11

Source Code:

```
N = int(input())
A = list(map(int,input().split()))
B = list(map(int,input().split()))
def can_combinations(A,B,max_bitterness):
    used_pepper = [False]*len(B)
    for s in A:
        found = False
        for j in range(len(B)):
            if not used_pepper[j] and (s+B[j] <= max_bitterness):
                used_pepper[j] = True
                found = True
                break
        if not found:
            return False
    return True
def minimize_max_bitterness(N,A,B):
    left,right = 0,max(A)+max(B)
    while left < right :
        mid = (left + right)//2
        if can_combinations(A,B,mid):
            right = mid
        else:
            left = mid + 1
    return left
print(minimize_max_bitterness(N,A,B))
```

RESULT

5 / 5 Test Cases Passed | 100 %

