Having a good previous year, Monk is back to teach algorithms and data structures. This year he welcomes the learners with a problem which he calls "Welcome Problem". The problem gives you two arrays *A* and *B* (each array of size *N*) and asks to print new array *C* such that:  
C[i]=A[i]+B[i] ; 1≤i≤N  
Now, Monk will proceed further when you solve this one. So, go on and solve it :)

**Input**:  
First line consists of an integer *N*, denoting the size of *A* and *B*.  
Next line consists of *N* space separated integers denoting the array *A*.  
Next line consists of *N* space separated integers denoting the array *B*.

**Output**:  
Print *N* space separated integers denoting the array *C*.

**Input Constraints**:  
1≤N≤100000  
1≤A[i]≤100000; 1≤i≤N  
1≤B[i]≤100000; 1≤i≤N

**SAMPLE INPUT**

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1 2 3 4 5

4 5 3 2 10

**SAMPLE OUTPUT**

5 7 6 6 15