Task 2: `Sum`

In the year 3018, NOI has grown so big that a total of N schools are sending students to participate for the NOI. The i-th school is sending X_i students to join the secondary division and Y_i students to join the junior college division. For administrative purposes, Mr. Panda needs your help to calculate the total number of students participating in each division.

Input format

Your program must read from standard input.

The input starts with a single integer, N, in a single line. N denotes the total number of schools. N lines will then follow with 2 integers each, the i-th line will contain X_i and Y_i. This indicates the i-th school sent X_i students for the secondary division and Y_i students for the junior college division.

Output format

Your program must print to standard output.

Your program should print two integers on a line separated by a space. The first integer is the total number of students in the secondary division and the second integer is the total number of students in the junior college division.

Subtasks

The maximum execution time on each instance is 1.0s.

For all test cases, $0 \leq X_i, Y_i \leq 10^9$ (Yes the population has had a massive increase!)

Your program will be tested on sets of input instances that satisfy the following restrictions:

Subtask	Marks	N
1	23	$2 \leq N \leq 2\,000$
2	33	$2 \leq N \leq 200\,000$
3	44	$2 \leq N \leq 10\,000\,000$

Sample Testcase 1

Input	Output
2 1 4 2 3	3 7