



Task 1: Train Or Bus

You are a tourist who wishes to explore some cities. There are $n + 1$ cities, numbered from 1 to $n + 1$ in sequence. There are some buses and trains running between these cities.

To travel between cities i and $i + 1$, you have two transportation options:

- Take a **train**, which takes $a[i]$ units of time.
- Take a **bus**, which takes $b[i]$ units of time.

Determine the minimum total time required to travel from city 1 to city $n + 1$.

Input format

Your program must read from standard input.

The first line of input contains one integer n .

The following n lines of input each contain one integer. The i -th of these lines contains $a[i]$.

The following n lines of input each contain one integer. The i -th of these lines contains $b[i]$.

Output format

Your program must print to standard output.

Output a single integer, the shortest time taken to travel from city 1 to city $n + 1$.

The output should contain only a single integer. Do not print any additional text such as `Enter a number` or `The answer is`.



Subtasks

For all testcases, the input will satisfy the following bounds:

- $1 \leq n \leq 10$
- $1 \leq a[i] \leq 10$ for all $1 \leq i \leq n$
- $1 \leq b[i] \leq 10$ for all $1 \leq i \leq n$

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

Subtask	Marks	Additional Constraints
0	0	Sample test cases
1	100	No additional constraints

Sample Test Case 1

Input	Output
3 7 7 5 9 8 1	15

Sample Test Case 1 Explanation

You start at city 1. You then:

- Take the train from city 1 to city 2 (7 units of time taken).
- Take the train from city 2 to city 3 (7 units of time taken).
- Take the bus from city 3 to city 4 (1 unit of time taken).

The total time taken is 15.