

Input format for custom testing

The first line contains a long integer, *initial_energy*, which denotes the initial energy Alex has at the starting.

The next line contains an integer, *n*, which denotes the number of houses from 1 to *n* both inclusive providing *house_energies*.

Each line *i* of the *n* subsequent lines (where $0 \leq i < n$) contains an integer describing *house_energy_i*.

The next line contains an integer, *n*, which denotes the number of houses from 1 to *n* both inclusive providing *house_coins*.

Each line *i* of the *n* subsequent lines (where $0 \leq i < n$) contains an integer describing *house_coins_i*.

Sample Case 0

Sample Input For Custom Testing

1

5

1

5

3

3

1

5

3

23

9

2

2

Sample Output

32

Explanation

There are 5 houses with energies as 1, 5, 3, 3, 1 respectively and coins as 3, 23, 9, 2, 2 respectively and *initial_energy* as 1. The best way to gain maximum coins is to get energy from the first house i.e. 1 and coins from the second and third house that is $23 + 9$. No need to go any further, in this way the maximum number of coins are collected that is 32 coins