

01-C Rune Rumble

Time limit: 10s

In the village of Eldoria, two rival clans, the Griffons and the Phoenixes, have been competing. They have decided to settle their dispute in a tournament, without resorting to warfare.

Both clans have chosen their champions, each holding a sequence of unique runes. Each rune holds power, represented by an integer value. These champions stand opposite each other and present their runes one by one. For every pair of runes shown, if the Griffon's rune has more power than the Phoenix's, the Griffons score a point, and vice versa.



Your task, as the judge, is to determine which clan's runes hold more power on balance. Whichever clan's runes win more comparisons will be deemed the winner, and you must then declare the total power of that clan's runes by summing up their values.

Input

A single line containing space-separated rune power values, representing the sequences from both the Griffon and Phoenix champions. These sequences are presented back-to-back, forming a concatenated list. Unfortunately, this means you will have to cut the list in half yourself to separate the two sequences of runes before handing them to the champions.

The total number of rune power values is even, and each value is unique.

You can read the input using `list(map(int, input().split()))`.

Disclaimer: Please note that your submission will be evaluated against a series of test cases, including some that are kept secret and not provided in the problem statement. It's important to remember that each test case is independent, and your program will be restarted for each one. When reading input, make sure to use the `input()` function. Do not use any string in the `input()` prompt (argument), as this will print the prompt to standard output, which will be interpreted as an incorrect answer. Avoid hardcoding solutions based on the sample cases, as this will not reflect the versatility needed to handle unseen data. Output should be printed directly to standard output, and may be necessary to ensure that your code works efficiently within the given time constraints.

Output

A single integer, the total power of the runes from the winning clan. It is assured that the Griffons and Phoenixes will not tie in their rune comparisons. Remember, the comparisons are made one by one, and the winner is only determined by the total number of comparisons won.

Sample Input 1

3 1

Sample Output 1

3

Sample Input 2

2 3

Sample Output 2

3
