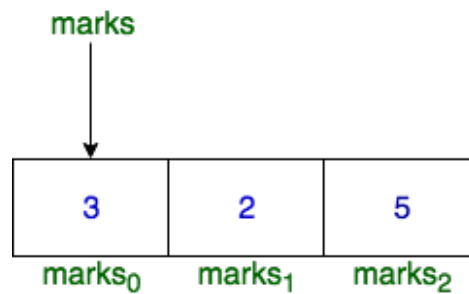


Students Marks Sum

You are given an array of integers, marks, denoting the marks scored by students in a class. The alternating elements marks₀, marks₁, and so on are the marks of boys whereas marks₁, marks₃, marks₅, and so on are the marks of girls.

The array name, marks, works as a pointer which stores the base address of that array. In other words, contains the address where is stored in the memory.

For example, let marks = [3, 2, 5] and marks = 3000. Then, 3000 is the memory address of marks₀.



Your task is to write a function which returns the total sum of:

- marks of boys if gender = b
- marks of girls if gender = g

Input

The first line contains the number of students N, denoting the number of students in the class, hence the number of elements in marks.

Each of the N subsequent lines contains marks_i.

The next line contains gender.

Output

The output should contain the sum of all the alternate elements in marks as explained above.

Sample input

Sample output

3 2 5 b	8
5 1 2 3 4 5 g	6