Curious subsequences P92016_en

In this problem, we will say that a (sub)sequence of integer numbers is curious if it does not have two consecutive numbers whose sum is even. Given a sequence of n integer numbers, what is the maximum sum of elements of all its curious subsequences?

For instance, for 8 10 101 100 120 the maximum sum is 231, corresponding to 10 101 120.

Input

Input consists of several cases, each one with n followed by n integer numbers between -10^9 and 10^9. Assume $1 \leq n \leq 10^7$.

Output

Print the maximum possible sum for every case.

Sample input 1

```
5  8 10 101 100 120
4  5 5 5 5
1  10
2  -1 -4
3 1000000000 999999999 1000000000
```

Sample output 1

```
231
5
10
0
2999999999
```

Problem information

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