

The maximum point

Given a row of N cells, numbered from 1 to N. Each cell contain a given value. If a cell containing the value of V is selected, you will earn V points, otherwise, you will earn $2*V$ points. Note that for every two adjacent cells, you must select at least one of them. Calculate the maximum point you can earn.

Input

- The first line contains one integer N - the number of cells ($1 \leq N \leq 10^5$).
- The next line contains N integers which are values of N cells, respectively.
- All integers don't exceed 10^9 .

Output

The maximum point.

Sample

Input	Output
5 4 3 -5 6 8	28

* Hints: Max Points = $2*4 + 3 - 5 + 6 + 2*8 = 28$. See problems Logging 1&2&3