

Shoes Game

Problem ID: shoesgame

Time limit: 1 second

$N + 1$ (N is odd number) shoes from $(N + 1)/2$ pair of shoes the same type with different sizes are lined up in a random order. The game master secretly take one of the shoes out and hide it. The player need to guess whether the hidden shoe is for left foot or right foot and what is its size.

Write a program to solve this game with cheating computer power.

Input

The first line of input contains the one integer N ($1 \leq N \leq 10^5$), the number of shoes.

The following line contains N integers S_1, S_2, \dots, S_N ($1 \leq |S_i| \leq 10^9$). Shoe i is for left foot if $S_i < 0$, otherwise it is for right foot. The size of the shoe is $|S_i|$.

Output

Output one integer R where $|R|$ is equal to the hidden shoe's size and it is negative if it is a shoe for left foot, positive otherwise.

Sample Input 1

3
1 5 -1

Sample Output 1

-5
