

## G. Smallest Product

time limit per test: 1 second🕒

memory limit per test: 256 megabytes

input: standard input

output: standard output

Ahmed is assigned a task today. He is given an array  $A$  contains of  $N$  integers.

His task is to update all elements of the array to some minimum value  $x$ , that is,  $A_i = x; (1 \leq i \leq N)$ , such that the product of all elements of this new array is strictly greater than the product of all elements of the initial array.

Note that  $x$  should be as minimum as possible such that it meets the given condition.

Help him find the value of  $x$ .

### Input

The first line consists of an integer  $N$  ( $1 \leq N \leq 10^5$ ), denoting the number of elements in the array.

The next line consists of  $N$  space-separated integers  $A_i$  ( $1 \leq A_i \leq 10^{10}$ ), denoting the array elements

### Output

The only line of output consists of value of  $x$ .

### Example

input	Copy
5 4 2 1 10 6	
output	Copy
4	

### Assiut University Training - Newcomers

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### → About Group



[Group website](#)

### → Group Contests

- Sheet #10 (General Hard)
- Sheet #9 (General medium)
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- Sheet #6 (Math - Geometry)
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- Contest #3.1
- Sheet #3 (Arrays)
- Contest #2
- Sheet #2 (Loops)
- Contest #1
- Sheet #1 (Data type - Conditions)

### Sheet #10 (General Hard)

Finished

Practice



### → About Time Scaling

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the [link](#).