

A Max Problem

Time Limit: 1.0s **Memory Limit:** 64M

Max loves to maximize elements. As such, he gives you an array a of length N , and wants you to print the maximum product of any 2 elements in the array! Note that the two elements **could both be** the same element.

Input Specification

The first line will contain the integer N ($1 \leq N \leq 100$).

The next line will contain N integers, a_1, a_2, \dots, a_N ($|a_i| \leq 10^9$).

Output Specification

Output the maximum product of any two elements.

Sample Input

```
3
1 3 2
```

Sample Output

```
9
```