AND xor OR

Given an array $A[]$ of N distinct elements. Let M_1 and M_2 be the smallest and the next smallest element in the interval $[L, R]$ where $1 \leq L < R \leq N$.

$$S_i = (((M_1 \wedge M_2) \oplus (M_1 \vee M_2)) \wedge (M_1 \oplus M_2)).$$

where $\wedge, \vee, \oplus$, are the bitwise operators AND, OR and XOR respectively.
Your task is to find the maximum possible value of S_i.

Input Format

First line contains integer N.
Second line contains N integers, representing elements of the array $A[]$.

Constraints
$1 < N \leq 10^6$
$1 \leq A_i \leq 10^9$

Output Format

Print the value of maximum possible value of S_i.

Sample Input

```
5
9 6 3 5 2
```

Sample Output

```
15
```

Explanation

Consider the interval $[1, 2]$ the result will be maximum.
$(((9 \wedge 6) \oplus (9 \vee 6)) \wedge (9 \oplus 6)) = 15$