16/11/2017 HackerRank



















Dashboard > Data Structures > Stacks > AND xor OR

Points: 25 Rank: 183202





Problem

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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  $1 \le L < R \le N$ .

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

where  $\land$ ,  $\lor$ ,  $\oplus$ , are the bitwise operators AND, OR and XOR respectively.

Your task is to find the maximum possible value of  $oldsymbol{S_i}$ .

#### **Input Format**

First line contains integer N.

Second line contains N integers, representing elements of the array A.

### **Constraints**

 $1 < N \le 10^6$ 

 $1 \le A_i \le 10^9$ 

# **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.

$$(((9 \land 6) \oplus (9 \lor 6)) \land (9 \oplus 6)) = 15$$

f ⊌ in

Submissions: 3458

Max Score:70 Difficulty: Hard

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```
C++
  Current Buffer (saved locally, editable) & • •
 1 ▼ #include <cmath>
 2 #include <cstdio>
 3 #include <vector>
 4 #include <iostream>
 5 #include <algorithm>
 6 using namespace std;
 8
 9 ▼ int main() {
         /* Enter your code here. Read input from STDIN. Print output to STDOUT */
10 ▼
11
         return 0;
12 }
13
                                                                                                                     Line: 1 Col: 1
<u>Upload Code as File</u> Test against custom input
                                                                                                         Run Code
                                                                                                                      Submit Code
```

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