



# Meatballs

locked

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Problem

Submissions

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Joey loves meatballs. He has  $N$  meatballs, each having a number on it. He likes to choose some meatballs (atleast one) out of them. It would satisfy him only if the **XOR** of the meatballs chosen by him is **0**. He doesn't know if he can choose a subset of the given meatballs and be satisfied. Joey is bad at math, he wants you to solve it.

## Input Format

First line contains  $N$ , the number of meatballs. Next line contains  $N$  spaced integers  $a_1, a_2, \dots, a_N$ .

## Constraints

$$N \leq 100,000$$

$$a_i \leq 2^{20}$$

## Output Format

Print "**YES**" if there exists a subset of meatballs that can satisfy Joey, else print "**NO**".

## Sample Input 0

```
4
1 3 2 4
```

## Sample Output 0

```
YES
```

## Explanation 0

$$1 = 001$$

$$2 = 010$$

$$3 = 011$$

$$4 = 100$$

$$1^2^3 = 000.$$

## Sample Input 1

```
3
1 3 4
```

## Sample Output 1

```
NO
```

Easy

Submitted 22 times  
Max Score 10