# Wolves and Sheep

Time Limit: 1 Second
Memory Limit: 1024 MB

There are $n$ wolves preparing to eat a sheep. Before doing so, two of the wolves decided to give the sheep a challenge, and set it free if the sheep solved it correctly.

Each of the $n$ wolves has a favorite number, where $a_i$ ($0 \leq a_i \leq 2^{30}$) is the favorite number of the $i$-th wolf. The first wolf tells the sheep the result after *xor*-ing every number except his own. The second wolf also tells the sheep the number after *xor*-ing every number except his own.

Now, the sheep needs to figure out what the minimum possible sum of all the wolves' numbers is.

As the farmer, you want to save your sheep, and you know that your sheep obviously cannot solve this. Help your sheep answer the question.

## Input

The first line contains the integer $n$ ($2 \leq n \leq 10^6$), denoting the number of wolves.

The second line contains one integer $b_1$ ($0 \leq b_1 < 2^{31}$), the number that the first wolf said.

The third line contains one integer $b_2$ ($0 \leq b_2 < 2^{31}$), the number that the second wolf said.

## Output

Output a single integer, denoting the minimum possible sum.

## Sample Inputs

```
3
14
13
```

## Sample Outputs

```
15
```