

B. Bitmask Operation

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

You have a number  $n$  and  $q$  queries.

- 1  $x$ : means print value of bit  $x$ .
- 2  $x$ : means change bit  $x$  to 1, and then print  $n$ .
- 3  $x$ : means change bit  $x$  to 0 , and then print  $n$ .
- 4  $x$ : mean if bit  $x$  equal 0 change to 1 and if it 1 change to 0. and then print  $n$ .

Input

The first line of input contains two number  $q, n$  ( $1 \leq q \leq 10^5, -10^9 \leq n \leq 10^9$ ).

The next  $q$  lines one type of query. ( $0 \leq x < 32$ ).

Output

print  $q$  lines, the  $i^{th}$  line contains the value of  $n$  after the  $i^{th}$  update.

Example

input	Copy
6 5 1 0 1 1 1 2 2 1 3 0 4 3	
output	Copy
1 0 1 7 6 14	

ICPC Assiut University Training - Standard - Juniors Phase 1

Public

Participant



→ Group Contests

Standard #5 (Bits , bit-masking )

Standard #4 (Binary search , two pointers )

Standard #3 (set , sorting, compare function , map )

Standard #2 (binary search , stack , queue, deque , priority queue)

Standard #1 (Frequency , prefix sum , vector , pair ,struct)

Standard #5 (Bits , bit-masking .)

Finished

Practice



→ Virtual participation

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Start virtual contest

→ Submit?

Language: GNU G++20 11.2.0 (64 bit, w

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
<a href="#">228213195</a>	Oct/14/2023 22:00	Accepted
<a href="#">226779069</a>	Oct/05/2023 20:52	Accepted
<a href="#">226778727</a>	Oct/05/2023 20:50	Wrong answer on test 1
<a href="#">226731726</a>	Oct/05/2023 15:06	Accepted