# **ICPC Assiut University Community**





HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP ICPC CHALLENGE 🛣

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

# C. Bitmask Operation (hard)

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

You have a number n (32 bit signed integer) and q queries.

- 1: change value of (first bit equal to 0) to 1.
- 2: change value of (first bit equal to 1) to 0.
- 3: change all bits (from index 0 until first bit equal to 1) to 1. if n equal 0, then n will be -1.
- 4: change all bits (from index 0 until first bit equal to 0) to 0.
- 5: if *n* is power of two print "is power of two", otherwise print "not power of two".

## Input

The first line of input contains two number  $n, q (0 < n \le 10^9, 1 \le q \le 10^5)$ .

The next q lines one type of query.

## **Output**

print q lines, each query in one line. if query from type 5 just answers the query, otherwise print the value of n after changes.

## Example



## <u>ICPC Assiut University Training -</u> <u>Standard - Juniors Phase 1</u>

#### **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

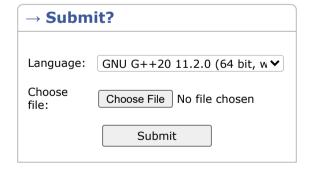


# → Virtual participation



Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest



ightarrow Last submissions		
Submission	Time	Verdict
228213489	Oct/14/2023 22:03	Accepted
226778785	Oct/05/2023 20:50	Accepted
226777512	Oct/05/2023 20:39	Accepted
226775666	Oct/05/2023 20:23	Wrong answer on test 4
226771467	Oct/05/2023 19:48	Wrong answer on test 4
226770582	Oct/05/2023 19:42	Wrong answer on test 4
226770347	Oct/05/2023 19:40	Wrong answer on test 4