

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

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### B. Distinct Xor Subsequence Queries

time limit per test: 1 second memory limit per test: 256 megabytes

You are given an empty sequence a. Your task is to process q queries of the following types:

- 1. Append x to the end of sequence a;
- 2. Among all **distinct** numbers you can produce by choosing any subsequence(possibly empty) from a and calculating their bitwise XOR, print the k-th smallest one. If such a number does not exist, print -1 instead.

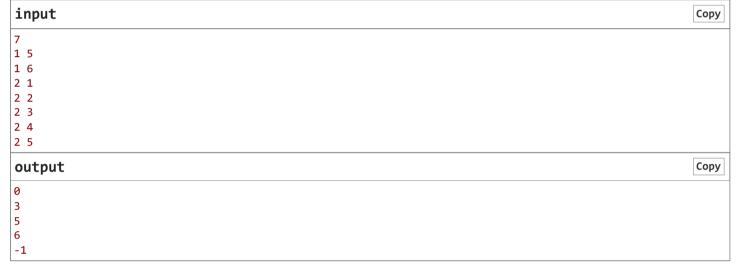
#### Input

The first line of input contains a single integer q ( $1 \le q \le 2 \times 10^5$ ).

Then, there are q lines describing the queries. Each line has two integers:  $1~x~(0 \le x < 2^{60})$  or  $2~k~(1 \le k \le 2^{60})$ 

For each query of type 2, print a line of a single integer denoting the answer.

#### **Examples**



input	Сору
3	
1 1000	
1 1000 1 1000	
2 3	
output	Сору
-1	

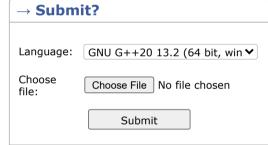
# **Introductory Problems: XOR Basis Finished** Practice

## → Virtual participation

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Start virtual contest





→ Last submissions		
Submission	Time	Verdict
325937582	Jun/25/2025 00:46	Accepted
325935704	Jun/25/2025 00:07	Wrong answer on test 4

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