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D. Odd Divisor

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

You are given an integer n. Check if n has an **odd** divisor, greater than one (does there exist such a number x (x > 1) that n is divisible by x and x is odd).

For example, if n=6, then there is x=3. If n=4, then such a number does not exist.

Input

The first line contains one integer t ($1 \le t \le 10^4$) — the number of test cases. Then t test cases follow.

Each test case contains one integer n ($2 \le n \le 10^{14}$).

Please note, that the input for some test cases won't fit into 32-bit integer type, so you should use at least 64-bit integer type in your programming language.

Output

For each test case, output on a separate line:

- "YES" if n has an **odd** divisor, greater than one;
- "NO" otherwise.

You can output "YES" and "NO" in any case (for example, the strings YEs, Yes, Yes and YES will be recognized as positive).

Example



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→ Group Contests



- ICPC Assiut Advanced Newcomers 2023 Contest 5
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- ICPC Assiut Advanced Newcomers 2023 Contest 2
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- ICPC Assiut Advanced Newcomers 2023 Contest 1
- ICPC Assiut Advanced Newcomers 2023 Onsite Contest 1

ICPC Assiut Advanced Newcomers 2023 Contest 4

Finished

Practice

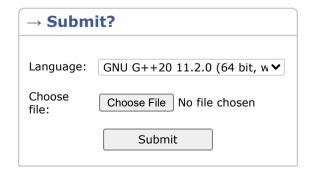


→ Virtual participation

virtual contest.

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

Start virtual contest



→ Last submissions		
Submission	Time	Verdict
227532146	Oct/10/2023 15:17	Accepted
227530622	Oct/10/2023 15:07	Accepted