

OPE_BIT_Level1_0013

Write a program to receive a number and check whether it is two's power or not? In mathematics, a power of two is a number of the form 2^n where n is an integer, i.e. the result of exponentiation with number two as the base and integer n as the exponent. ... Because two is the base of the binary numeral system, powers of two are common in computer science.

Input Format

First line specifies the number of test cases. Each line has an integer that needs to be processed by your program.

Constraints

$1 \leq n1 \leq 200000000$

Output Format

Print YES OR NO

Sample Input 0

```
3
512
4908
4096
```

Sample Output 0

```
YES
NO
YES
```