



Alex is preparing for a programming contest and decides the gears turning in his head are at war with his own laziness. He imagines chains of  $n$  circularly linked gears trying to turn in his head, and wonders under which circumstances they might be able to turn together in a single chain and when they might be locked (i.e., unable to rotate together).

Alex decides to set a problem for himself by creating  $q$  queries where each query takes the form of an integer,  $n$ , denoting some number of circularly linked gears. For each query, print **Yes** on a new line if the gears can turn together; otherwise, print **No**.

## Input Format

The first line contains single integer,  $q$ , denoting the number of queries.

Each line  $i$  of the  $q$  subsequent lines contains a single integer,  $n$ , denoting the number of gears for that query.

## Constraints

- $1 \leq q \leq 10^5$
- $3 \leq n \leq 10^5$

## Output Format

For each query, print **Yes** on a new line if it is possible to rotate all  $n$  gears simultaneously; otherwise, print **No**.

## Sample Input

```
2
3
4
```

## Sample Output

```
No
Yes
```

## Explanation

When  $n = 3$ , the gears will lock together and be unable to rotate simultaneously so we print **No** on a new line.

When  $n = 4$ , each individual gear will be able to simultaneously rotate either clockwise or counterclockwise so we print **Yes** on a new line.