

Leap year

A leap year is a year with 366 days, those years are divisible by 4 but not divisible by 100, or are divisible by 400. Given a list of years, output if they are leap year.

Input

+ The first line contains the number of testcases T ($0 < T < 10^3$)

+ Each line in the next T lines contains an integer which is the year to be checked ($n > 0$)

Output

For each year, output "YES" if the year is leap year, otherwise output "NO" (without a quote)

Example

Input:

```
4
2005
2012
1900
2000
```

Output:

```
NO
YES
NO
YES
```