Problem 13: Leap Year

Difficulty: Easy

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Problem Background

Not all years are created equal. Every now and then (approximately every four years), we get an extra day to enjoy because of a leap year. Leap years occur because we need to keep the calendar year in sync with the astronomical year (which is 365.24 days long), so we insert an extra day (February 29th) to correct the difference between the calendars.

Problem Description

Most of the world uses the Gregorian calendar to keep track of the calendar year. The Gregorian calendar was first used in the year 1582, so there were no leap years before that time. Under this calendar system, years that are not leap years are called common years. Here is the pseudo code for telling the difference between common years and leap years:

- If the year is prior to 1582, then it is a common year
- Else if the year is not divisible by 4 then it is a common year
- Else if the year is not divisible by 100 then it is a leap year
- Else if the year is not divisible by 400 then it is a common year
- Else the year is a leap year

Your task is to write a program that will tell whether or not a given year was a leap year.

Sample Input

The first line of your program's input, received from the standard input channel, will contain a positive integer representing the number of test cases. Each test case will include:

- A positive integer, N, representing the number of years that will follow.
- N lines, each containing one year per line.

```
2
1
1984
3
1999
2001
4000
```

Sample Output

For each test case, your program should output one line containing Yes if the year was (or will be) a leap year, or No if the year was not a leap year.

```
Yes
No
No
Yes
```