

Problem

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An extra day is added to the calendar almost every four years as February 29, and the day is called a leap day. It corrects the calendar for the fact that our planet takes approximately 365.25 days to orbit the sun. A leap year contains a leap day.

In the Gregorian calendar, three conditions are used to identify leap years:

- The year can be evenly divided by 4, is a leap year, unless:
  - The year can be evenly divided by 100, it is NOT a leap year, unless:
    - The year is also evenly divisible by 400. Then it is a leap year.

This means that in the Gregorian calendar, the years 2000 and 2400 are leap years, while 1800, 1900, 2100, 2200, 2300 and 2500 are NOT leap years. [Source](#)

Task

Given a year, determine whether it is a leap year. If it is a leap year, return the Boolean `True`, otherwise return `False`.

Note that the code stub provided reads from STDIN and passes arguments to the `is_leap` function. It is only necessary to complete the `is_leap` function.

Input Format

Read *year*, the year to test.

Constraints

$$1900 \leq year \leq 10^5$$

Output Format

The function must return a Boolean value (True/False). Output is handled by the provided code stub.

Sample Input 0

1990

Sample Output 0

False

Explanation 0

1990 is not a multiple of 4 hence it's not a leap year.

Change Theme Language Pypy 3

```
1 def is_leap(year):
2     leap = False
3
4     # Write your logic here
5     if (year%4==0 and year%100!=0) or year%400==0:
6         return True
7     else:
8         return False
9     year = int(input())
10    print(is_leap(year))
```

Line: 5 Col: 38

Upload Code as File

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☐ Test against custom input

Test case 0

Compiler Message

Success

Test case 1

Success

Test case 2

Input (stdin)

1 2000

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Test case 3

Success

Test case 4

Expected Output

1 True

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Test case 5

Hidden Test Case