## Jutge.org

The Virtual Learning Environment for Computer Programming

## Easter Sunday

P32323_en
Write a program that prints which day is Easter Sunday of a given year (remember that Easter Sunday is a mobile holiday that corresponds to the first Sunday after the first full moon of the spring.
To solve this problem, use the Gauss method. The Gauss method to find the day $(D)$ and the month $(M)$ that corresponds to the Easter Sunday of a year $(Y)$ is:

- Is computed (div indicates integer division and mod indicates the remainder of the integer division):

1. $k:=Y \operatorname{div} 100$
2. $y:=Y \bmod 19$
3. $b:=Y \bmod 4$
4. $c:=Y \bmod 7$
5. $q:=k \operatorname{div} 4$
6. $p:=(13+8 k) \operatorname{div} 25$
7. $m:=(15-p+k-q) \bmod 30$
8. $d:=(19 y+m) \bmod 30$
9. $n:=(4+k-q) \bmod 7$
10. $e:=(2 b+4 c+6 d+n) \bmod 7$

- When $d+e \leq 9$, then $D:=22+d+e$ and $M:=3$.
- When $d=29$ and $e=6$, then $D:=19$ and $M:=4$.
- When $d=28$ and $e=6$ and $y>10$, then $D:=18$ and $M:=4$.
- Otherwise, $D:=d+e-9$ and $M:=4$.


## Input

Input is a year (integer number) between 1800 and 9999.

## Output

The output is two integer numbers in a line, separated by a slash. The first is the day and the second is the month which correspond to the Easter Sunday of the given year using Gauss method.

## Sample input 1

## Sample output 1

16/4

## Sample input 2

1999

Sample output 2
4/4

## Problem information

Author : Jordi Petit
Translator : Carlos Molina
Generation : 2013-09-02 15:20:04
© Jutge.org, 2006-2013.
http://www.jutge.org

