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

2006

### Sample input 2

1999

## Sample output 2

4/4

### **Problem information**

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