

## WK05AS01 - Leap Year Calculator

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Write a program that works out whether if a given year is a leap year. A normal year has 365 days, leap years have 366, with an extra day in February.

This is how to work out whether if a particular year is a leap year:

*A year is a leap year if it is evenly divisible by 4;*

*Except if that year is also evenly divisible by 100;*

*Unless that year is also evenly divisible by 400*

**e.g. Is the year 2000 a leap year?:**

$2000 \div 4 = 500$  (Leap)

$2000 \div 100 = 20$  (Not Leap)

$2000 \div 400 = 5$  (Leap!)

So the year 2000 is a leap year.

But the year 2100 is not a leap year because:

$2100 \div 4 = 525$  (Leap)

$2100 \div 100 = 21$  (Not Leap)

$2100 \div 400 = 5.25$  (Not Leap)

### Hint

- Remember that the modulo (%) operator gives you the remainder of a division.
- Try to visualize the rules by creating a flow chart on [www.draw.io](http://www.draw.io)