

Exercise 1.

Leap Year

Model Math

$p \wedge (\sim q \vee r)$

p is divisible by 4

Q is not divisible by 100

R is divisible by 400

Algorithm

```
Input(year)
isLeap = false
Mod (year, 4): result, residue
If(residue == 0)
    Mod(year,400):result,residue_400
    Mod(year,100):result,residue_100
    If(residue_400 == 0 || residue_100 != 0)
        isLeap=true
    Else
        isLeap = false
if(isLeap == true)
    print "The year is leap"
else
    print "The year is not leap"
```

Mod(dividend, divisor):result, residue

```
result=0
Mientras (dividend >=divisor)
    dividend = dividend – divisor
    result++;
residue=dividend
```