**Exercise:**

Verify if it is a Leap year.

**Leap Year Condition:**

Leap\_Year = p && (! q || r)

Where:

* p = divisible by 4
* ! q = divisible by 100
* r = divisible by 400

**Inputs:** Year.

Where Year € positive N.

**Outputs:** True, if it is a leap year or False, if it is not a leap year.

**Algorithm:**

Is\_Leap\_Year (year): True or False

1. Read year
2. p = Is\_Divisible(year,4): True or False
3. q = Is\_Divisible (year,100): True or False
4. r = Is\_Divisible (year,400): True or False
5. leap = Verify\_Condition (p, q, r): True or False
6. Show is\_leap (leap)

Is\_Divisible (num1, num2): True or False

1. if (year < num)
   1. Return False
2. div = num1/num2
3. if (num 1 == (div\*num))
   1. Return True
4. Else
   1. Return False

Verify\_Condition (p, q, r): True or False

1. q = negar(q)
2. If (p == False)
   1. Return False
3. If (q == true || r == true)
   1. Return True
4. Else
   1. Return False

negar(q):

return (q \* False)