**Task2: Given a year verify if this is a leap year**

Algorithm:

1. Read year
2. Verify is a leap year (IsLeapYear (year))
3. Show True in case year is a leap year, False in another case

IsLeapYear(year){

P = year is divisible by 4 (IsDivisible(year, 4))

Q = year is divisible by 100 (IsDivisible(year, 100))

R = year is divisible by 400 (IsDivisible(year, 400))

If (p == True){

If(q is different to True Or r is True)

Return True

}

Return false

}

IsDivisible(year, divisible){

div = Divide year/divisible

mult = multiplicate div \* divisible

rest = subtract year – mult

if rest is 0

return True

else

return False

}

**Task 3:Given the following information about a regular polygon :**

* Side (L)
* number of sides (n)

Calculate the polygon’s area

*Mathematic-logic Model*

Area (regular Polygon) = (Perimeter \* apothem)/2

Apothem = L/(n tang (360/(n\*2) ))

*Algorithm*

1. Read number of sides (n)
2. Read size side (L)
3. Calculate area PolygonArea(n,L)
4. Show area

PolygonArea(n,L){

Calculate apothem a = aphotem(n, L)

area = (L\*n \* a)/2

Return area

}

Apthotem(n,L){

Apt= L/(n tang(360/ n\*2) )

Return apt

}