



**TECNOLÓGICO NACIONAL DE MÉXICO**  
**INSTITUTO TECNOLÓGICO DE TIJUANA**  
Subdirección Académica  
Departamento de sistemas y computación

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Nombre del trabajo:  
Practica 2

UNIDAD A EVALUAR:  
Unidad I

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## 1. Develop a scala algorithm that calculates the radius of a circle

We declare the variable "circu" which would be the value of the area of the circle, and we carry out the corresponding operation with the clearing of the formula. Finally we print the value of the radius.

```
val circu = 15
val pi = 2 * 3.1416
val rad = circu / pi

println (rad)
```

## 2. Develop a scala algorithm that tells me if a number is prime

We declare the number that we will review and the counter, taking into account that a number is prime if it can only be divided between itself and 1 and that the remainder is 0, a loop is started that if certain conditions are met and it will tell us if the number is prime or not.

```
val number = 3
var cont = 0
for (i <- Range (1, number + 1)) {
  if (num% i == 0) {
    cont + = 1
  }
}
if (cont! = 2)
{
  println ("Non-prime number")
}
else
{
  println ("The number is prime")
}
```

## 3. Given the variable var bird = "tweet", use string interpolation to print "I'm writing a tweet"

we assign the value of the tweet to the variable bird and we interpolate it with the text that I am writing in the variable interpolate

```
val bird = "tweet"
val interpolate = "Estoy escribiendo un tweet" + bird
```



4. Given the variable `var message = "Hello Luke, I am your father!"` use slice to extract the sequence "Luke"

we assign the value to the message variable, we use the cut function to bring the data from the range 7 to 11

```
val message = "Hola Luke, yo soy tu padre!"  
message slice (7,11)
```

5. What is the difference between value (`val`) and a variable (`var`) in scala?

The object assigned to a value cannot be overridden, and the object assigned to a var can, however, said object can have its internal state modified.

6. Given the tuple `(2,4,5,1,2,3,3.1416,23)` returns the number 3.1416

we create the tuple and call position 7, in this case 3.1416

```
val x = List (2,4,5,1,2,3,3.1416,23)  
x (7)
```