**TOKENS  
RESERVED KEYWORDS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **FUNCTION** | **WHILE** | **IF** | **TRUE** | **TO** | **RETURN** | **AND** | **INPUT** |
| **VAR** | **FOR** | **ELIF** | **FALSE** | **END** | **CONTINUE** | **OR** | **INPUT\_INT** |
|  |  | **ELSE** |  | **STEP** | **BREAK** | **NOT** | **INPUT\_FLOAT** |
|  |  |  |  | **THEN** |  |  |  |
|  |  |  |  |  |  |  |  |

**Operators:**

* **Arithmetic Operators:** +, -, \*, /, ^, =, %
* **Relational Operators:** ,>, <, >=, <=, !=, ==
* **Logical Operators:** AND, OR, NOT (Reserved Keywords)

**Special Symbols and Punctuation**

* **Parentheses:** (, )
* **Quotation Marks for Strings:** "

**Comments:** #

**Identifiers:** Can be any string of characters and digits [A-Za-z][A-Za-z0-9\_]\*

**Integer constants (INT): Numbers without decimal point.**

**Real constants (FLOAT): Numbers with decimal point.**

**String constants (STRING): Limited by “ ”**

**EXAMPLE PROGRAMS**

**PROGRAMA 1. CALCULAR FACTORIAL**

**FUNCTION calcularFactorial(n)**

**VAR factorial = 1;**

**IF n < 0 THEN**

**RETURN -1**

**ELIF n == 0 THEN**

**RETURN 1**

**ELSE**

**WHILE n > 1 THEN**

**factorial = factorial \* n**

**n = n - 1**

**END**

**END**

**RETURN factorial**

**END**

**PRINT("Ingresa un numero entero")**

**VAR n = INPUT\_INT()**

**VAR resultado = calcularFactorial(n)**

**IF resultado == -1 THEN**

**PRINT("El Factorial no esta definido para números negativos")**

**ELSE**

**PRINT("El factorial es: " + resultado)**

**END**

**PROGRAMA 2. SABER SI ES PRIMO**

**FUNCTION esPrimo(x)**

**IF x <= 1 THEN RETURN FALSE**

**VAR i = 2**

**WHILE i <= x / 2 THEN**

**IF x % i == 0 THEN**

**RETURN FALSE**

**END**

**i = i + 1**

**END**

**RETURN TRUE**

**END**

**PRINT("Ingresa un numero entero")**

**VAR n = INPUT\_INT()**

**IF esPrimo(n) THEN**

**PRINT(n + " es un numero primo")**

**ELSE**

**PRINT(n + " NO es un numero primo")**

**END**

**PROGRAMA 3. SUMA DE PARES**

**VAR suma = 0**

**VAR temp = 0**

**PRINT("Valor de n: ")**

**VAR n = INPUT\_INT()**

**PRINT("Valor de m: ")**

**VAR m = INPUT\_INT()**

**IF n > m THEN**

**temp = n**

**n = m**

**m = temp**

**END**

**temp = n**

**WHILE temp <= m THEN**

**IF temp % 2 == 0 THEN**

**suma = suma + temp**

**END**

**temp = temp + 1**

**END**

**PRINT("La suma entre " + n + " y " + m + "es: " + suma)**

**PROGRAMA 4. Celsius a Fahrenheit**

**FUNCTION convertirAFahrenheit(celsius)**

**RETURN (celsius\*9/5) + 32**

**END**

**PRINT("Ingrese la temperatura en grados centigrados: ")**

**VAR celsius = INPUT\_FLOAT()**

**VAR fahrenheit = convertirAFahrenheit(celsius)**

**PRINT(celsius + " grados celsius son equivalentes a " + fahrenheit + " fahrenheit")**