**Sorting an Array (Bubble Sort)**

```
Procedure BubbleSort(arr)
   n=Length(arr)
   For i from 0 to n-1 do
      For j from 0 to n-i-2 do
         If arr[j] > arr[j+1] then
            Swap arr[j] and arr[j+1]
         EndIf
      EndFor
   EndFor
EndProcedure
```

Find largest number

```
Procedure FindLargest(arr)
   max =arr[0]
   For each num in arr do
      If num > max then
         max = num
      EndIf
   EndFor
   Return max
EndProcedure
```

Palindrome

```
Procedure IsPalindrome(str)
   n =Length(str)
   For i from 0 to n/2 do
      If str[i] ≠ str[n-i-1] then
```

```
        Return False
    EndIf
  EndFor
  Return True
EndProcedure
```

Prime number

```
Procedure IsPrime(num)
  If num <= 1 then
    Return False
  EndIf
  For i from 2 to num do
    If num% i = 0 then
      Return False
    EndIf
  EndFor
  Return True
EndProcedure
```

Fibonacci Series

```
Procedure FibonacciSeries(N)
  a = 0
  b = 1
  Print a, b
  For i from 2 to N-1 do
    c = a + b
    Print c
    a = b
    b = c
```

```
    EndFor
EndProcedure
```

Basic Calculator

```
Procedure Calculator()
    Print "Enter first number:"
    num1 = Input()
    Print "Enter second number:"
    num2 = Input()
    Print "Enter operation (+, -, *, /):"
    op = Input()

    If op = "+" then
        result = num1 + num2
    ElseIf op = "-" then
        result = num1 - num2
    ElseIf op = "*" then
        result = num1 * num2
    ElseIf op = "/" then
        If num2 = 0 then
            Print "Error: Division by zero"
            Return
        Else
            result =num1 / num2
        EndIf
    Else
        Print "Invalid operation"
        Return
    EndIf
```

```
    Print "Result:", result
EndProcedure
```

factorial using recursion

```
Function Factorial(n)
    If n = 0 then
        Return 1
    Else
        Return n * Factorial(n-1)
    EndIf
EndFunction
```

Count vowels in string

```
Procedure CountVowels(str)
    vowels = "aeiouAEIOU"
    count = 0
    For each char in str do
        If char is in vowels then
            count = count + 1
        EndIf
    EndFor
    Return count
EndProcedure
```