Comparison between Function and Module

Examples: Calculate weekly gross pay

Module

```
//Declare a global constant
Constant Real PAY_RATE = 8.5
Module main()
    //Declare variables
    Declare Real hours
    Declare Real grossPay

    Call getInput(hours)
    Call calcuPay(hours, grossPay)
    Call output(hours, grossPay)
End Module

  //module for input; need a pass-
  //by-reference parameter
Module  getInput (Real Ref hours)
    Display "Please enter hours: "
     Input hours
End Module


  //module for calculation; need a pass-
       //by-reference parameter
Module  calcuPay (Real hours, Real
                          Ref grossPay)
    Set grossPay = hours * PAY_RATE
End Module

  //module for output
Module output(Real h, Real gp)
    Display "Hours worked:  ",  h
    Display "Pay Rate : ", PAY_RATE
    Display "Total Pay:  ",  gp
End Module
```

Module and Function

```
//Declare a global constant
Constant Real PAY_RATE = 8.5
Module main()
    //Declare variables
    Declare Real hours
    Declare Real grossPay

    Set hours = getInput()
    Set grossPay = calcuPay(hours)
    Call output(hours, grossPay)
End Module

  //function for input
Function Real getInput ()
    Declare Real hours
    Display "Please enter hours: "
     Input hours
     Return hours
End Function

  //function for calculation
Function Real calcuPay (Real hours)
    Declare Real grossPay
    Set grossPay = hours * PAY_RATE
    Return grossPay
End Function

//module for output
Module output(Real h, Real gp)
    Display "Hours worked:  ",  h
    Display "Pay Rate : ", PAY_RATE
    Display "Total Pay:  ",  gp
End Module
```

No need to pass an argument by reference

A returned value is either an input value by the user, or a result of processing.

A function only returns ONE value

Both solutions have the same **output()** module