

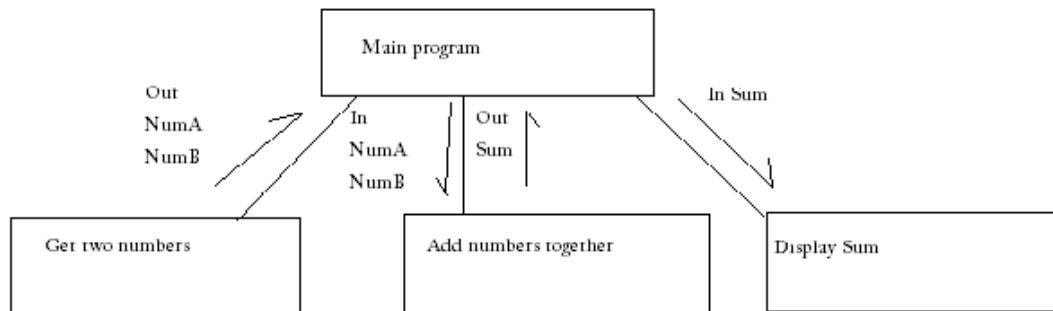
## Data in/out in programs

There is a lot of confusion over input and output (ByVal/ByRef).

Consider the following example.

Write a program using procedures that gets 2 numbers, adds them together before displaying the answer.

## Structure diagram



## Algorithm

1. Get 2 numbers  
*Out NumA, NumB*
2. Add the numbers together  
*In NumA, NumB*  
*Out Sum*
3. Display the answer  
*In Sum*

Code

```
Private Sub Main()  
Dim NumA as Integer  
Dim NumB as Integer  
Dim NumSum as Integer
```

```
Call GetTwoNumbers(NumA,NumB)  
Call AddTwoNumbers(NumA,NumB,NumSum)  
Call DisplayAnswer(NumSum)  
End Sub
```

```
Private Sub GetTwoNumbers(ByRef NumA as Integer, ByRef NumB as Integer)  
NumA=inputbox("Please enter the first number")  
NumB=inputbox("Please enter the second number")  
End Sub
```

```
Private Sub AddTwoNumbers(ByVal NumA as Integer, ByVal NumB as Integer,  
ByRef NumSum as Integer)  
NumSum=NumA+NumB  
End Sub
```

```
Private Sub DisplayAnswer(ByVal NumSum as Integer)  
Msgbox("The sum of the two numbers is " & NumSum)  
End Sub
```