

# Functions and Sub Procedure coding

CSC 110

## 'How to call a Function WITH NO argument

```
Private Sub calculateButton_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles calculateButton.Click
```

```
code ...
```

```
'call Commission function to convert  
'sales into commission  
commDecimal = Commission()  
commissionLabel.Text = commDecimal
```

```
code ...
```

```
End Sub
```

```
Private Function Commission() As Decimal
```

```
Commission = CDec(salesTextBox.text) * 0.15D
```

```
End Function
```

---

## 'How to call a Function WITH an argument

```
Private Sub calculateButton_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles calculateButton.Click
```

```
code ...
```

```
'capture the sales into the variable  
salesDecimal = CDec(salesTextBox.Text)
```

```
'call Commission function to convert sales into commission  
commDecimal = Commission(salesDecimal)  
commissionLabel.Text = commDecimal
```

```
code ...
```

```
End Sub
```

```
Private Function Commission(ByVal salesDecimal As Decimal) As Decimal
```

```
Commission = salesDecimal * 0.15D
```

```
End Function
```

---

### **'How to call a Function WITH multiple arguments**

```
Private Sub calculateButton_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles calculateButton.Click
```

```
code ...
```

```
'capture the sales into the variable  
zoneInteger = CInt(zoneTextBox.text)  
salesDecimal = CDec(salesTextBox.Text)
```

```
'call Commission function to convert sales into commission  
commDecimal = Commission(salesDecimal, zoneInteger)  
commissionLabel.Text = commDecimal
```

```
code ...
```

```
End Sub
```

```
Private Function Commission(ByVal salesDecimal As Decimal, ByVal zoneInteger As Integer) As Decimal
```

```
If zoneInteger = 1 Then  
    Commission = salesDecimal * 0.15D  
Else  
    Commission = salesDecimal * 0.07D  
End If
```

```
End Function
```

---

### **'How to call a Function using one data type to send and receive another data type back**

```
Private Sub gradeButton_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles gradeButton.Click
```

```
code ...
```

```
'call Grade function to convert  
'numeric score into letter grade  
gradeLabel.Text = Grade(gradeInteger)
```

```
code ...
```

```
End Sub
```

```
Private Function Grade(ByVal gradeInteger As Integer) As String
```

```
'test to see if the grade was enough to pass  
If gradeInteger > 60 Then  
    Grade = "Pass"  
Else  
    Grade = "Fail"      'We return a STRING  
End If
```

```
End Function
```

---

### **'Alternative to Return coding for a Function**

```
Private Sub calculateButton_Click(ByVal sender As System.Object, ByVal e As
    System.EventArgs) Handles calculateButton.Click

    code ...

    'call Commission function to convert
    'sales into commission
    commDecimal = Commission()
    commissionLabel.Text = commDecimal

    code ...

End Sub

Private Function Commission() As Decimal

    Return CDec(salesTextBox.text) * 0.15D

    ' Instead of
    ' Commission = salesDecimal * 0.15D

End Function
```

---

### **'How to call a Sub Procedure**

```
Private Sub btnClear_Click(ByVal sender As System.Object, ByVal e As
    System.EventArgs) Handles btnClear.Click

    code ...

    'call Sub Procedure to clear out text box
    Clear()

    code ...

End Sub

Private Sub Clear()

    'clear out the textboxes and label
    gradeTextBox.Text = ""
    noticeTextBox.Text = ""
    warningLabel.Text = ""

End Sub
```

---

**'How to call a Sub Procedure WITH an argument**

```
Private Sub areaCommButton_Click(ByVal sender As System.Object, ByVal e As  
    System.EventArgs) Handles areaCommButton.Click
```

```
    code ...
```

```
    'call Sub Procedure to display  
    'commission based on Sales Area  
    AreaComm(salesAreaInteger)
```

```
    code ...
```

```
End Sub
```

```
Private Sub AreaComm(ByVal areaInteger As Integer)
```

```
    'display the commission for the area
```

```
    If areaInteger = 1 Then  
        commissionLabel.text = "15%"
```

```
    Else  
        commissionLabel.text = "5%"
```

```
    End If
```

```
End Sub
```