Solutions (PartII) Lab-session 1

1) Function CUBESUM1(n)

    a = 1

    Do Until a = n + 1

        CUBESUM1 = CUBESUM1 + (2 * a - 1) ^3

        a = a + 1

    Loop

End Function

Function CUBESUM2(n)

    a = 1

    Do While a < n + 1

        CUBESUM2 = CUBESUM2 + (2 * a - 1) ^3

        a = a + 1

    Loop

End Function

Function CUBESUM3(n)

    a = 1

    Do

        CUBESUM3 = CUBESUM3 + (2 * a - 1) ^3

        If a = n Then Exit Do

        a = a + 1

    Loop

End Function

Function CUBESUMRES(n)

    CUBESUMRES = n ^2 * (2 * n ^2 - 1)

End Function

2) Function LOGSUM(a, x)

  Const Error = "The series does not converge for this value of x"

  If x < -1 Or x >= 1 Then

        LOGSUM = Error

  Else

        n = 1

        Do While n < a + 1

            LOGSUM = LOGSUM + (-1) ^(n + 1) * x ^n / n

            n = n + 1

        Loop

  End If

End Function

3) Function NEST(p)

```
    k = 1
    Do While k < p + 1
        l = 1
        Do While l < k + 1
            m = 1
            Do While m < l + 1
                NEST = NEST + m ^2
                m = m + 1
            Loop
            l = l + 1
        Loop
        k = k + 1
    Loop
End Function
Function NESTRES(p)
    NESTRES = p * (1 + p) * (2 + p) * (3 + p) * (3 + 2 * p) / 120
End Function
```

4) Sub Fill()

```
    Range("A1").Select
    m = 0
    Do While m < 10
        n = 0
        Do While n < 10
            ActiveCell.Offset(m, n).Value = (n + 1) * (m + 1)
            n = n + 1
        Loop
        m = m + 1
    Loop
End Sub
```