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 $\char`\^{}$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