

```

1  Attribute VB_Name = "Módulo1"
2  Option Explicit
3
4  Sub Newton_v1()
5  ' implementação essencial do método Newton-Raphson
6  Dim xk As Single, xk1 As Single
7  Dim NDS_est As Integer, NDS_des As Integer
8  Dim EAR As Double
9  Dim Iter As Integer
10 NDS_des = 4
11 Iter = 1
12 xk = 1036.23
13 Do While (NDS_est < NDS_des)
14     xk1 = xk - Fx(xk) / DFx(xk)
15     EAR = Abs((xk1 - xk) / xk1)
16     If (EAR > 1 * 10 ^ -6) Then
17         NDS_est = Application.Floor(-Log(EAR / 0.5) / Log(10), 1)
18     Else
19         NDS_est = 6
20     End If
21     xk = xk1
22     Iter = Iter + 1
23 Loop
24 MsgBox ("A raiz é " & xk)
25 End Sub
26 Function Fx(x)
27 Fx = x ^ 2 + x - 6
28 End Function
29 Function DFx(x)
30 DFx = 2 * x + 1
31 End Function
32

```