

'Gramática G0 = { {0,S0}, {0}, { S0 -> 0}, So }

Option Explicit

Public Function L0(sigma As String) As Boolean

 L0 = Q0L0("", sigma)

End Function

Public Function Q0L0(x As String, sigma As String) As Boolean

 If Len(sigma) = 0 Then

 Q0L0 = False

 Else

 x = Left(sigma, 1)

 If x = "0" Then

 Q0L0 = Q1L0(x, Right(sigma, Len(sigma) - 1))

 End If

 End If

End Function

Public Function Q1L0(x As String, sigma As String) As Boolean

 If Len(sigma) = 0 Then

 Q1L0 = True

 Else

 x = Left(sigma, 1)

 If x = "0" Then

 Q1L0 = Q2L0(x, Right(sigma, Len(sigma) - 1))

 End If

 End If

End Function

Public Function Q2L0(x As String, sigma As String) As Boolean

 If Len(sigma) = 0 Then

 Q2L0 = False

 Else

 x = Left(sigma, 1)

 If x = "0" Then

 Q2L0 = Q2L0(x, Right(sigma, Len(sigma) - 1))

 End If

 End If

End Function

'Gramática G1 = { {1,S0}, {1}, { S0 -> 1}, So }

Public Function L_1(sigma As String) As Boolean

 L_1 = Q0L1("", sigma)

End Function

```

Public Function Q0L1(x As String, sigma As String) As Boolean
    If Len(sigma) = 0 Then
        Q0L1 = False
    Else
        x = Left(sigma, 1)
        If x = "1" Then
            Q0L1 = Q1L1(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function

```

```

Public Function Q1L1(x As String, sigma As String) As Boolean
    If Len(sigma) = 0 Then
        Q1L1 = True
    Else
        x = Left(sigma, 1)
        If x = "1" Then
            Q1L1 = Q2L1(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function

```

```

Public Function Q2L1(x As String, sigma As String) As Boolean
    If Len(sigma) = 0 Then
        Q2L1 = False
    Else
        x = Left(sigma, 1)
        If x = "1" Then
            Q2L1 = Q2L1(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function

```

'Gramática G2 = { {0,S0}, {0}, { S0 -> 0S0, S0->}, So }

```

Public Function L_2(sigma As String) As Boolean
    L_2 = Q0L2("", sigma)
End Function

```

```

Public Function Q0L2(x As String, sigma As String) As Boolean
    If Len(sigma) = 0 Then
        Q0L2 = True
    Else
        x = Left(sigma, 1)
        If x = "0" Then

```

```

        Q0L2 = Q0L2(x, Right(sigma, Len(sigma) - 1))
    End If
End Function

```

```

'Gramática G3 = { {1,S0}, {1}, { S0 -> 1S0, S0->e, S0 }
Public Function L_3(sigma As String) As Boolean
    L_3 = Q0L3("", sigma)
End Function

```

```

Public Function Q0L3(x As String, sigma As String) As Boolean
    If Len(sigma) = 0 Then
        Q0L3 = True
    Else
        x = Left(sigma, 1)
        If x = "1" Then
            Q0L3 = Q0L3(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function

```

'Exercício 24/09

'Ler xml.

'Gramática G0 = { {0,S0}, {0}, { S0 -> 0}, So }

'Máquina de Moore

```

Public Function Moore1(sigma As String) As String
    Moore1 = Q0M1("", sigma)
End Function

```

```

Public Function Q0M1(x As String, sigma As String) As String
    If Len(sigma) = 0 Then
        Q0M1 = ""
    Else
        x = Left(sigma, 1)
        If x = "0" Then
            Q0M1 = "1" + Q0M1(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function

```

```
Public Function Moore2(sigma As String) As String
    Moore2 = Q0M2("", sigma)
End Function
```

```
Public Function Q0M2(ByVal x As String, ByVal sigma As String) As String
    If Len(sigma) = 0 Then
        Q0M2 = ""
    Else
        x = Left(sigma, 1)
        If x = "0" Then
            Q0M2 = "0" + Q1M2(x, Right(sigma, Len(sigma) - 1))
        End If
        If x = "1" Then
            Q0M2 = "0" + Q0M2(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function
```

```
Public Function Q1M2(ByVal x As String, ByVal sigma As String) As String
    If Len(sigma) = 0 Then
        Q1M2 = ""
    Else
        x = Left(sigma, 1)
        If x = "0" Then
            Q1M2 = "1" + Q1M2(x, Right(sigma, Len(sigma) - 1))
        End If
        If x = "1" Then
            Q1M2 = ""
        End If
    End If
End Function
```

```
Public Function Moore3(sigma As String) As String
    Moore3 = Q0M3("", sigma)
End Function
```

```
Public Function Q0M3(ByVal x As String, ByVal sigma As String) As String
    If Len(sigma) = 0 Then
        Q0M3 = ""
    Else
        x = Left(sigma, 1)
        If x = "a" Then
            Q0M3 = "1" + Q1M3(x, Right(sigma, Len(sigma) - 1))
        End If
    End If
End Function
```

```
Else
    Q0M3 = ""
End If
End If
End Function
```

```
Public Function Q1M3(ByVal x As String, ByVal sigma As String) As String
    If Len(sigma) = 0 Then
        Q1M3 = ""
    Else
        x = Left(sigma, 1)
        If x = "b" Then
            Q1M3 = Q1M3(x, Right(sigma, Len(sigma) - 1))
        End If
        If x = "c" Then
            Q1M3 = Q0M3(x, Right(sigma, Len(sigma) - 1))
        End If
        If x = "a" Then
            Q1M3 = ""
        End If
    End If
End Function
```