

```
'PRIMEIRA FICHA
```

```
'1)
```

```
Public Function TotalNumeroColaboradores() As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        resultado += cFilial.NumeroColaboradores
    Next
    Return resultado
End Function
```

```
'2)
```

```
Public Function TotalNumeroColaboradores() As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.NumeroColaboradores > 50 Then
            resultado += cFilial.NumeroColaboradores
        End If
    Next
    Return resultado
End Function
```

```
'3)
```

```
Public Function TotalNumeroColaboradores(ByVal A As Integer) As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.NumeroColaboradores > A Then
            resultado += cFilial.NumeroColaboradores
        End If
    Next
    Return resultado
End Function
```

```
'4)
```

```
Public Function ContarFiliais() As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.NumeroColaboradores < 50 Then
            resultado += 1
        End If
    Next
    Return resultado
End Function
```

```
'5)
```

```
Public Function ContarFiliais(ByVal A As Integer) As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.NumeroColaboradores < A Then
            resultado += 1
        End If
    Next
    Return resultado
End Function
```

```
'6)
```

```
Public Function ContarFiliaisPar() As Integer
    Dim resultado As Integer = 0
```

```
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.NumeroColaboradores Mod 2 = 0 Then
            resultado += 1
        End If
    Next
    Return resultado
End Function

'7)

Public Function MaiorFilial() As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing
    Dim c1 As Integer = 0

    For Each cFilial In Me.cCollFiliais
        c1 += 1
        If c1 = 1 Then
            resultado = cFilial.NumeroColaboradores
        ElseIf cFilial.NumeroColaboradores > resultado Then
            resultado = cFilial.NumeroColaboradores
        End If
    Next
    Return resultado
End Function

'8)

Public Function MaiorFilial() As String
    Dim resultado As String
    Dim cFilial As ClassFilial = Nothing
    Dim c1 As Integer = 0
    Dim somacolab As Integer = 0

    For Each cFilial In Me.cCollFiliais
        c1 += 1
        If c1 = 1 Then
            somacolab = cFilial.NumeroColaboradores
            resultado = cFilial.Nome
        ElseIf cFilial.NumeroColaboradores > somacolab Then
            resultado = cFilial.Nome
        End If
    Next
    Return resultado
End Function

'9)

Public Function MaiorFilial() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim somacolab As Integer = 0
    Dim c1 As Integer = 0

    For Each cFilial In Me.cCollFiliais
        c1 += 1
        If c1 = 1 Then
            resultado = cFilial
            somacolab = cFilial.NumeroColaboradores
        ElseIf cFilial.NumeroColaboradores > somacolab Then
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'10)

Public Function MenorNomeFilial() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim caracteres As Integer = 0
```

```
    Dim c1 As Integer = 0

    For Each cFilial In Me.cCollFiliais
        c1 += 1
        If c1 = 1 Then
            caracteres = cFilial.Nome.Length
            resultado = cFilial
        ElseIf cFilial.Nome.Length < caracteres Then
            caracteres = cFilial.Nome.Length
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'11)

Public Function MenorFilial() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim contagem As Integer = 0
    Dim c As Integer = 0

    For Each cFilial In Me.cCollFiliais
        c += 1
        If c = 1 Then
            contagem = cFilial.cCollDepartamentos.Count
        End If
        If cFilial.cCollDepartamentos.Count < contagem Then
            contagem = cFilial.cCollDepartamentos.Count
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'12)

Public Function MediaColaboradores() As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing
    Dim soma As Integer = 0

    For Each cFilial In Me.cCollFiliais
        soma += cFilial.NumeroColaboradores
    Next
    If Me.cCollFiliais.Count <> 0 Then
        resultado = soma / Me.cCollFiliais.Count
    End If
    Return resultado
End Function

'13)

Public Function DesvioPadraoColaboradores() As Single
    Dim resultado As Single = 0
    Dim cFilial As ClassFilial = Nothing
    Dim Media As Single = 0
    Dim C As Single = 0

    Media = Me.MediaColaboradores
    For Each cFilial In Me.cCollFiliais
        C += Math.Abs(Media - cFilial.NumeroColaboradores)
    Next
    If Me.TotalNumeroColaboradores <> 0 Then
        resultado = C / Me.TotalNumeroColaboradores()
        Return resultado
    End If
End Function

'14)

Public Function MaiorOrcamento() As Single
```

```
    Dim resultado As Single = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me._cCollFiliais
        resultado += cFilial.ValorOrcamento
    Next
    Return resultado
End Function

'15)

Public Function FilialMenorOrcamento() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim min As Single = 0
    Dim c As Integer = 0

    For Each cFilial In Me.cCollFiliais
        c += 1
        If c = 1 Then
            min = cFilial.ValorOrcamento
            resultado = cFilial
        End If
        If cFilial.ValorOrcamento < min Then
            min = cFilial.ValorOrcamento
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'SEGUNDA FICHA

'1)*

Public Function MaiorProporcao() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim Proporcao As Single = 0

    For Each cFilial In Me.cCollFiliais
        If Proporcao < cFilial.Proporcao() Then
            Proporcao = cFilial.Proporcao()
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'2)*

Public Function RendimentoEmpresa() As Single
    Dim resultado As Single = 0

    If Me.TotalNumeroColaboradores() <> 0 Then
        resultado = Me.OrcamentoTotal() / Me.TotalNumeroColaboradores()
    End If
    Return resultado
End Function

Public Function OrcamentoTotal() As Single
    Dim resultado As Single = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        resultado += cFilial.ValorOrcamento
    Next
    Return resultado
End Function

'3)

Public Function NumeroFiliais(ByVal A As Integer) As Integer
```

```
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.NumeroColaboradores < A Then
            resultado += 1
        End If
    Next
    Return resultado
End Function

'4)

Public Function MediaOrcamento() As Single
    Dim resultado As Single = 0
    Dim cFilial As ClassFilial = Nothing
    Dim media As Single = 0
    Dim C As Integer = 0

    For Each cFilial In Me.cCollFiliais
        media += cFilial.ValorOrcamento
        C += 1
    Next
    If C <> 1 Then
        resultado = media / C
    End If
    Return resultado
End Function

'5)

' a mesma q a 5) da ficha 1 e 3 desta

'6)*

Public Function ContarFiliaisComLucro() As Integer
    Dim resultado As Integer = 0
    Dim cFilial As ClassFilial = Nothing
    Dim cDepartamento As ClassDepartamento = Nothing

    For Each cFilial In Me.cCollFiliais
        If cFilial.Lucro() > 0 Then
            resultado += 1
        End If
    Next

    Return resultado
End Function

'7)*

Public Function DepartamentoGastador() As ClassDepartamento
    Dim resultado As ClassDepartamento = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim maxCusto As Single = 0
    Dim d As ClassDepartamento = Nothing
    Dim valor As Single = 0
    Dim c As Single = 0
    For Each cFilial In Me.cCollFiliais
        valor = cFilial.MaxCusto(d)
        c += 1
        If c = 1 Then
            maxCusto = valor
            resultado = d
        ElseIf valor > maxCusto Then
            maxCusto = valor
            resultado = d
        End If
    Next
    Return resultado
End Function

'8)*
```

```

Public Function DepartamentoGastador() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim maxCusto As Single = 0
    Dim valor As Single = 0
    Dim c As Single = 0
    For Each cFilial In Me.cCollFiliais
        valor = cFilial.MaxCustoFilial()
        c += 1
        If c = 1 Then
            maxCusto = valor
            resultado = cFilial
        ElseIf valor > maxCusto Then
            maxCusto = valor
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'9)*

Public Function DepartamentoGastador() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim maxCusto As Single = 0
    Dim valor As Single = 0
    Dim c As Single = 0
    For Each cFilial In Me.cCollFiliais
        valor = cFilial.MaxCustov2()
        c += 1
        If c = 1 Then
            maxCusto = valor
            resultado = cFilial
        ElseIf valor > maxCusto Then
            maxCusto = valor
            resultado = cFilial
        End If
    Next
    Return resultado
End Function

'10)*

Public Function CustoColaborador() As Single
    Dim resultado As Single = 0
    Dim cFilial As ClassFilial = Nothing
    Dim custototal As Single = 0

    For Each cFilial In Me.cCollFiliais
        custototal += cFilial.CustoTotal()
    Next
    If Me.TotalNumeroColaboradores <> 0 Then
        resultado = custototal / Me.TotalNumeroColaboradores
    End If
    Return resultado
End Function

'11)

Public Function CustoColaborador() As Single
    Dim resultado As Single = 0

    resultado = Me.OrcamentoTotal

    Return resultado
End Function

'qual a filial com maior rendimento?
'r = orcamento - ( Custo x n° reclamações x 0,2 )

Private Function Rendimento() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing

```

```
Dim custo As Single = 0
Dim orcamento As Single = 0
Dim reclamacoes As Single = 0
Dim c1 As Integer = 0
Dim max As Single = 0
Dim valor As Single = 0

For Each cFilial In Me.cCollFiliais
    c1 += 1
    custo += cFilial.CustoTotal()
    reclamacoes += cFilial.TotalReclamaçõesFilial()
    valor = cFilial.ValorOrcamento - (custo * reclamacoes * 0.2)
    If c1 = 1 Then
        max = valor
        resultado = cFilial
    ElseIf max < valor Then
        max = valor
        resultado = cFilial
    End If
Next

Return resultado
End Function
```

```
'qual a filial com maior rendimento?
'r = orcamento - (Custo x nº reclamações x 0,2 )
'versao 2
```

```
Private Function Rendimentov2() As ClassFilial
    Dim resultado As ClassFilial = Nothing
    Dim cFilial As ClassFilial = Nothing
    Dim cDepartamento As ClassDepartamento = Nothing
    Dim custo As Single = 0
    Dim orcamento As Single = 0
    Dim reclamacoes As Single = 0
    Dim c1 As Integer = 0
    Dim max As Single = 0
    Dim valor As Single = 0

    For Each cFilial In Me.cCollFiliais
        c1 += 1
        orcamento = cFilial.ValorOrcamento
        For Each cDepartamento In cFilial.cCollDepartamentos
            custo += cDepartamento.Custo
            reclamacoes += cDepartamento.cCollReclamacoes.Count
        Next
        valor = orcamento - (custo * reclamacoes * 0.2)
        If c1 = 1 Then
            max = valor
            resultado = cFilial
        ElseIf max < valor Then
            max = valor
            resultado = cFilial
        End If
    Next

    Return resultado
End Function
```