Function ProgProd\_Ej10\_Cmax(a As Integer, b As Integer)

 Dim n As Integer

 Dim m As Integer

 n = 4

 m = 3

 Dim pij() As Integer

 ReDim pij(m - 1, n - 1) As Integer

 pij(0, 0) = 7

 pij(0, 1) = 1

 pij(0, 2) = 2

 pij(0, 3) = 4

 pij(1, 0) = 2

 pij(1, 1) = 4

 pij(1, 2) = a

 pij(1, 3) = 5

 pij(2, 0) = 4

 pij(2, 1) = b

 pij(2, 2) = 7

 pij(2, 3) = 6

 Dim d\_j() As Integer

 ReDim d\_j(n - 1) As Integer

 d\_j(0) = 15

 d\_j(1) = 2 \* a

 d\_j(2) = 5 \* b

 d\_j(3) = 25

 Dim Sec() As Integer

 ReDim Sec(n - 1) As Integer

 For j = 0 To n - 1

 Sec(j) = j

 Next j

 Dim Cmax As Integer

 Cmax = Fm\_Cmax(Sec, m, pij)

 'Debug.Print Cmax

 ProgProd\_Ej10\_Cmax = Cmax

End Function

Function ProgProd\_Ej10\_Cmax\_EDD(a As Integer, b As Integer)

 Dim n As Integer

 Dim m As Integer

 n = 4

 m = 3

 Dim pij() As Integer

 ReDim pij(m - 1, n - 1) As Integer

 pij(0, 0) = 7

 pij(0, 1) = 1

 pij(0, 2) = 2

 pij(0, 3) = 4

 pij(1, 0) = 2

 pij(1, 1) = 4

 pij(1, 2) = a

 pij(1, 3) = 5

 pij(2, 0) = 4

 pij(2, 1) = b

 pij(2, 2) = 7

 pij(2, 3) = 6

 Dim d\_j() As Integer

 ReDim d\_j(n - 1) As Integer

 d\_j(0) = 15

 d\_j(1) = 2 \* a

 d\_j(2) = 5 \* b

 d\_j(3) = 25

 Dim Sec() As Integer

 ReDim Sec(n - 1) As Integer

 Dim djAux() As Integer

 ReDim djAux(n - 1) As Integer

 Call copy\_vector(d\_j, djAux)

 Call sort\_vector(djAux, Sec, "A")

 Dim Cmax As Integer

 Cmax = Fm\_Cmax(Sec, m, pij)

 'Debug.Print Cmax

 ProgProd\_Ej10\_Cmax\_EDD = Cmax

End Function

Function ProgProd\_Ej10\_EjTj(a As Integer, b As Integer)

 Dim n As Integer

 Dim m As Integer

 n = 4

 m = 3

 Dim pij() As Integer

 ReDim pij(m - 1, n - 1) As Integer

 pij(0, 0) = 7

 pij(0, 1) = 1

 pij(0, 2) = 2

 pij(0, 3) = 4

 pij(1, 0) = 2

 pij(1, 1) = 4

 pij(1, 2) = a

 pij(1, 3) = 5

 pij(2, 0) = 4

 pij(2, 1) = b

 pij(2, 2) = 7

 pij(2, 3) = 6

 Dim d\_j() As Integer

 ReDim d\_j(n - 1) As Integer

 d\_j(0) = 15

 d\_j(1) = 2 \* a

 d\_j(2) = 5 \* b

 d\_j(3) = 25

 Dim Sec() As Integer

 ReDim Sec(n - 1) As Integer

 For j = 0 To n - 1

 Sec(j) = j

 Next j

 Dim sumEjTj As Integer

 sumEjTj = Fm\_sumTjEj(Sec, m, d\_j, pij)

 'Debug.Print sumEjTj

 ProgProd\_Ej10\_EjTj = sumEjTj

End Function

Function ProgProd\_Ej10\_maxLj(a As Integer, b As Integer)

 Dim n As Integer

 Dim m As Integer

 n = 4

 m = 3

 Dim pij() As Integer

 ReDim pij(m - 1, n - 1) As Integer

 pij(0, 0) = 7

 pij(0, 1) = 1

 pij(0, 2) = 2

 pij(0, 3) = 4

 pij(1, 0) = 2

 pij(1, 1) = 4

 pij(1, 2) = a

 pij(1, 3) = 5

 pij(2, 0) = 4

 pij(2, 1) = b

 pij(2, 2) = 7

 pij(2, 3) = 6

 Dim d\_j() As Integer

 ReDim d\_j(n - 1) As Integer

 d\_j(0) = 15

 d\_j(1) = 2 \* a

 d\_j(2) = 5 \* b

 d\_j(3) = 25

 Dim Sec() As Integer

 ReDim Sec(n - 1) As Integer

 For j = 0 To n - 1

 Sec(j) = j

 Next j

 Dim maxLj As Integer

 maxLj = Fm\_maxLj(Sec, m, d\_j, pij)

 'Debug.Print maxLj

 ProgProd\_Ej10\_maxLj = maxLj

End Function

Function ProgProd\_Ej10\_maxLj\_EDD(a As Integer, b As Integer)

 Dim n As Integer

 Dim m As Integer

 n = 4

 m = 3

 Dim pij() As Integer

 ReDim pij(m - 1, n - 1) As Integer

 pij(0, 0) = 7

 pij(0, 1) = 1

 pij(0, 2) = 2

 pij(0, 3) = 4

 pij(1, 0) = 2

 pij(1, 1) = 4

 pij(1, 2) = a

 pij(1, 3) = 5

 pij(2, 0) = 4

 pij(2, 1) = b

 pij(2, 2) = 7

 pij(2, 3) = 6

 Dim d\_j() As Integer

 ReDim d\_j(n - 1) As Integer

 d\_j(0) = 15

 d\_j(1) = 2 \* a

 d\_j(2) = 5 \* b

 d\_j(3) = 25

 Dim Sec() As Integer

 ReDim Sec(n - 1) As Integer

 Dim djAux() As Integer

 ReDim djAux(n - 1) As Integer

 Call copy\_vector(d\_j, djAux)

 Call sort\_vector(djAux, Sec, "A")

 Call print\_vector(Sec)

 Dim maxLj As Integer

 maxLj = Fm\_maxLj(Sec, m, d\_j, pij)

 'Debug.Print maxLj

 ProgProd\_Ej10\_maxLj\_EDD = maxLj

End Function

Function Fm\_Cmax(Sec() As Integer, m As Integer, pij() As Integer) As Integer

 Dim sum, i, j As Integer

 Dim Cij() As Integer

 ReDim Cij(m - 1, UBound(Sec)) As Integer

 sum = 0

 'Primera máquina

 For j = 0 To UBound(Sec)

 sum = sum + pij(0, Sec(j))

 Cij(0, j) = sum

 Next j

 'Primer trabajo

 sum = pij(0, Sec(0))

 For i = 1 To m - 1

 sum = sum + pij(i, Sec(0))

 Cij(i, 0) = sum

 Next i

 For i = 1 To m - 1

 For j = 1 To UBound(Sec)

 If Cij(i, j - 1) > Cij(i - 1, j) Then

 Cij(i, j) = Cij(i, j - 1) + pij(i, Sec(j))

 Else

 Cij(i, j) = Cij(i - 1, j) + pij(i, Sec(j))

 End If

 Next j

 Next i

 Fm\_Cmax = Cij(m - 1, UBound(Sec))

End Function

Function Fm\_maxLj(Sec() As Integer, m As Integer, dj() As Integer, pij() As Integer) As Integer

 Dim sum, i, j As Integer

 Dim Cij() As Integer

 ReDim Cij(m - 1, UBound(Sec)) As Integer

 sum = 0

 'Primera máquina

 For j = 0 To UBound(Sec)

 sum = sum + pij(0, Sec(j))

 Cij(0, j) = sum

 Next j

 'Primer trabajo

 sum = pij(0, Sec(0))

 For i = 1 To m - 1

 sum = sum + pij(i, Sec(0))

 Cij(i, 0) = sum

 Next i

 For i = 1 To m - 1

 For j = 1 To UBound(Sec)

 If Cij(i, j - 1) > Cij(i - 1, j) Then

 Cij(i, j) = Cij(i, j - 1) + pij(i, Sec(j))

 Else

 Cij(i, j) = Cij(i - 1, j) + pij(i, Sec(j))

 End If

 Next j

 Next i

 'Cálculo Función objetivo

 Fm\_maxLj = 0

 Dim Lj As Integer

 For j = 0 To UBound(Sec)

 Lj = Cij(m - 1, j) - dj(Sec(j))

 If Lj > Fm\_maxLj Then

 Fm\_maxLj = Lj

 End If

 Next j

End Function

Function Fm\_sumTjEj(Sec() As Integer, m As Integer, dj() As Integer, pij() As Integer) As Integer

 Dim sum, i, j As Integer

 Dim Cij() As Integer

 ReDim Cij(m - 1, UBound(Sec)) As Integer

 sum = 0

 'Primera máquina

 For j = 0 To UBound(Sec)

 sum = sum + pij(0, Sec(j))

 Cij(0, j) = sum

 Next j

 'Primer trabajo

 sum = pij(0, Sec(0))

 For i = 1 To m - 1

 sum = sum + pij(i, Sec(0))

 Cij(i, 0) = sum

 Next i

 For i = 1 To m - 1

 For j = 1 To UBound(Sec)

 If Cij(i, j - 1) > Cij(i - 1, j) Then

 Cij(i, j) = Cij(i, j - 1) + pij(i, Sec(j))

 Else

 Cij(i, j) = Cij(i - 1, j) + pij(i, Sec(j))

 End If

 Next j

 Next i

 'Cálculo Función objetivo

 Fm\_sumTjEj = 0

 For j = 0 To UBound(Sec)

 If Cij(m - 1, j) > dj(Sec(j)) Then

 Fm\_sumTjEj = Fm\_sumTjEj + Cij(m - 1, j) - dj(Sec(j))

 Else

 Fm\_sumTjEj = Fm\_sumTjEj - Cij(m - 1, j) + dj(Sec(j))

 End If

 Next j

End Function