**Algorithm\_balanced\_parenthesis()**

***Input:*** An arithmetic expression, say E.

***Output:*** E is balanced in terms of parenthesis or suitable message.

***Data structure used:*** A stack, say EXP

STEPS:

Begin

TOP=L-1 // L specifying the lower index of the stack A

While (Stack EXP not empty)

Begin

Set ITEM=E.scan\_symbol() //scan\_symbol() is a procedure that scans a symbol from the expression at a time from left to right.

If ( ITEM = '(' Or '{' Or '[' )

Then

Push ITEM to A

Set TOP=TOP+1

Else If

If (ITEM = ')' Or '}' OR ']')

Then

If(A is empty) OR (TOP does not pair with ITEM)

Then

Print "Expression is not balanced"

Else

Set TOP=TOP-1

End If

End If

End If

End While

If (A is empty)

Then

Print "Expression is balanced."

Else

Print "Expression is not balanced."

End If

End