Improved Algorithm For Bubble Sort

For I = 0 to I < N-1 do

Set Counter to 0 /\*Set counter to 0 at the start of

For j = 0 to j < N-1 do each outer loop increment\*/

If A[j] > A[j + 1]

Temp = A[j]

A[j] = A[j+1]

A[j + 1] = temp

ELSE

Set Counter to Counter + 1 /\*If all of array is sorted, Counter

End If will be incremented n-1 times

End For

If Counter == n -1 /\*If counter == n-1, array is sorted

Return 0 as explained in step 2

End For

Call Stack for (1,2,4,3) Without improvement

First Result: (1,2,3,4)

Second Result: (1,2,3,4)

Third Result: (1,2,3,4)

Fourth Result: (1,2,3,4)

Finished

Call Stack for (1,2,4,3) With improvement

First Result: (1,2,3,4), Counter is not n -1

Second Result: (1,2,3,4) Counter is n-1

Finished