1.

def bubblesort(list):

# Swap the elements to arrange in order

for iter\_num in range(len(list)-1,0,-1):

for idx in range(iter\_num):

if list[idx]>list[idx+1]:

temp = list[idx]

list[idx] = list[idx+1]

list[idx+1] = temp

list = [19,2,31,45,6,11,121,27]

bubblesort(list)

print(list)

2.

def merge\_sort(unsorted\_list):

if len(unsorted\_list) <= 1:

return unsorted\_list

middle = len(unsorted\_list) // 2

left\_list = unsorted\_list[:middle]

right\_list = unsorted\_list[middle:]

left\_list = merge\_sort(left\_list)

right\_list = merge\_sort(right\_list)

return list(merge(left\_list, right\_list))

def merge(left\_half,right\_half):

res = []

while len(left\_half) != 0 and len(right\_half) != 0:

if left\_half[0] < right\_half[0]:

res.append(left\_half[0])

left\_half.remove(left\_half[0])

else:

res.append(right\_half[0])

right\_half.remove(right\_half[0])

if len(left\_half) == 0:

res = res + right\_half

else:

res = res + left\_half

return res

unsorted\_list = [64, 34, 25, 12, 22, 11, 90]

print(merge\_sort(unsorted\_list))