# -\*- coding: utf-8 -\*-

"""

Created on Fri Dec 25 17:10:28 2020

@author: danny

"""

arr=[6, 7,1,5, 9,3, 8,4]

def merge(X, Y):

" merge two sorted lists "

p1 = p2 = 0

out = []

while p1 < len(X) and p2 < len(Y):

if X[p1] < Y[p2]:

out.append(X[p1])

p1 += 1

else:

out.append(Y[p2])

p2 += 1

out += X[p1:] + Y[p2:]

return out

def mergeSort(A):

if len(A) <= 1:

return A

if len(A) == 2:

return sorted(A)

mid = int(len(A)/2)

return merge(mergeSort(A[:mid]), mergeSort(A[mid:]))

arr=mergeSort(arr)

print(arr)

def binary\_search(arr,num):

if len(arr):

mid=int(len(arr)/2)

if num>arr[mid]:

binary\_search(arr[mid+1:],num)

elif num<arr[mid]:

binary\_search(arr[:mid],num)

else:

print(num,'存在')

return

else:

print(num,'不存在')

binary\_search(arr,2)

binary\_search(arr,8)

# -\*- coding: utf-8 -\*-

"""

Created on Fri Dec 25 17:53:19 2020

@author: danny

"""

def fib(num):

if num==0:

return 0

elif num==1:

return 1

else:

return fib(num-1)+fib(num-2)

for i in range(10):

print(fib(i))