实验二

堆排序

**def** big\_endian(arr,start,end):  
 root = start  
 **while True**:  
 child=root \* 2 + 1  
 **if** child > end:  
 **break  
 if** child+1 <= end **and** arr[child] < arr[child+1]:  
 child += 1  
 **if** arr[root] < arr[child]:  
 arr[root],arr[child] = arr[child],arr[root]  
 root=child  
 **else**:  
 **break  
def** heap\_sort(arr):  
 first = len(arr)  
 **for** start **in** range (first,-1,-1):  
 big\_endian(arr,start,len(arr)-1)  
 **for** end **in** range (len(arr)-1,0,-1):  
 arr[0],arr[end] = arr[end],arr[0]  
 big\_endian(arr,0,end-1)  
  
**def** main():  
 l = [3,1,4,9,6,7,5,8,2,0]  
 print(l)  
 heap\_sort(l)  
 print(l)  
  
  
**if** \_\_name\_\_ == **"\_\_main\_\_"**:  
 main()

结果：

