1:

﻿def is\_sorted(s):

if len(s)<=1:

return 1

for i in range(0,len(s)-2):

if s[i]>s[i+1]:

return -1

return 1

def qsort(s):

if len(s)<=1:

return s

s\_less=[];s\_greater=[];s\_equal=[]

for k in s:

if k<s[0]:

s\_less.append(k)

elif k>s[0]:

s\_greater.append(k)

else:

s\_equal.append(k)

return qsort(s\_less)+s\_equal+qsort(s\_greater)

def binary\_search(s,low,high,k):

if low>high:

return -1

if low==high-1 and k!=s[low] and k!=s[high]:

return -1

mid=int((low+high)/2)

if k==s[mid]:

return mid

if k>s[mid]:

return binary\_search(s,mid+1,high,k)

if k<s[mid]:

return binary\_search(s,low,mid-1,k)

s=[5,6,21,32,51,60,67,73,77,99]

if not is\_sorted(s):

s=qsort(s)

print(binary\_search(s,0,len(s)-1,5))

print(binary\_search(s,0,len(s)-1,31))

print(binary\_search(s,0,len(s)-1,99))

print(binary\_search(s,0,len(s)-1,64))

print(binary\_search(s,0,len(s)-1,51))

输出结果：

﻿0

-1

9

-1

4