Cautare binara pe biti

#citire  
f1= open("intrare.in","r")  
l=[]  
for linie in f1.readlines():  
 a=[int(x) for x in linie.split()]  
 l.extend(a)  
#x e elementul cautat  
x=l[0]  
l.pop(0)  
print(x)  
print(l)  
  
#n e lungimea listei  
n=len(l)  
  
#cea mai mica putere a lui doi mai mare ca n  
p=1  
while p<n:  
 p= p<<1  
  
i=0  
while p>0:  
 if(i+p<n):  
 if(l[i+p] <= x):  
 i+=p  
 p=p>>1  
  
if(l[i]==x):  
 print(i)  
else:  
 print(-1)

Cautare ternara

def caut\_ternara(x,l):  
 st = 0  
 dr = len(l) - 1  
 while st < dr:  
 m1 = st + (dr - st) // 3  
 m2 = dr - (dr -st) //3  
 if (x == l[m1]):  
 return m1  
 elif (x< l[m1]):  
 dr=m1-1  
 elif (x== l[m2]):  
 return m2  
 elif (x< l[m2]):  
 st = m1+1  
 dr = m2-1  
 else:  
 st = m2+1  
  
x=int(input("x="))  
l=[int(x) for x in input().split()]  
print(caut\_ternara(x,l))