1. In a given list of elements, all elements are equal except the one. Write a code to find the odd man out?

input=[1,1,1,1,1,2]  
 for i in input:  
 if(input.count(i)==1):  
 print(i)  
 break

1. In a given list of elements, find the element which is close to its mean?

l=[2,5,3,9]

m=sum(l)//len(l)

l.sort()

**for** i **in** range(len(l)):

**if**(l[i]>=m):

print(l[i-1])

**break**

1. Find the average speed of vehicle, given the distance travelled for fixed time intervals, e.g. [0,0.1,0.25,0.45,0.55,0.7,0.9,1.0]?

t=20

l=[0,0.1,0.25,0.45,0.55,0.7,0.9,1.0]

t=20/60

**for** i **in** range(len(l)):

l[i]=l[i]/t

avg=sum(l)/len(l)

print(**"The average speed is {:.2f}"**.format(avg))

1. Find the no.of people in a bus, given the data of people onboarding & alighting at each station?

n=4

onboarding=[40,30,20,10]

alighting= [8,7,6,5]

s=0

**for** i **in** range(n):

s=s+onboarding[i]-alighting[i]

print(s)

1. Find the missing number, given the original list and modified one?

l\_original=[1,2,3,4,5]  
 l\_modified=[1,2,4,5]  
 **for** i **in** l\_original:  
 **if** i **not in** l\_modified:  
 print(i)  
 **break**

1. Find the difference between two lowest numbers in the list?

l=[2,5,4,9,6]

l.sort()

d=abs(l[0]-l[1])

print(d)

1. In a given list, count no.of elements smaller than their mean?

l=[2,5,4,9,6]

m=sum(l)//len(l)

**for** i **in** l:

**if**(i<m):

print(i,end=” “)

1. Correct the malformed time string?

time=**"5:70:65"**

hours,minutes,seconds=map(int,time.split(**":"**))

**if** seconds>60:

minutes1=seconds//60

seconds=seconds%60

minutes+=minutes1

seconds=str(seconds)

**if** minutes>60:

hours1=minutes//60

minutes=minutes%60

hours+=hours1

minutes=str(minutes)

**if** hours>23:

hours=hours-23

hours=str(hours)

print(**"{}:{}:{}"**.format(hours.zfill(2),minutes.zfill(2),seconds.zfill(2)))

1. Correct the malformed date?

d=**"45/8/2018"**da,mo,ye=map(int,d.split(**"/"**))  
if mo>12:  
 ye+=1  
 mo=mo-12  
if mo==2:  
 if da>28:  
 da-=28  
 mo=3  
  
elif mo in [4,6,9,11]:  
 if da>30:  
 mo+=1  
 da=da-30  
elif mo in [1,3,5,7,8,10,12]:  
 if da>31:  
 da-=31  
 if mo>12:  
 mo-=12  
 ye+=1  
 else:  
 mo+=1  
da=str(da)  
mo=str(mo)  
ye=str(ye)  
print(**"{}/{}/{}"**.format(da.zfill(2),mo.zfill(2),ye.zfill(4)))

1. Convert ip address from “a.b.c.d” format to integer and vice versa?

address=input()

f=address[0]

if f.isdigit()==True: #given input has integers

l=list(map(int,address.split(".")))

l=[chr(i) for i in l]

s=".".join(l)

print(s)

else:

#given input contain characters

l=list(address.split("."))

s=""

for i in l:

s+=str(ord(i))+"."

s=s[:-1]

print(s)

1. Check whether the string is isograms or not?

s=input()

s=s.lower()

l=list(s)

f=0

l1=[]

**for** i **in** l:

**if** i **not in** l1:

l1.append(i)

**else**:

print(**"String is not an isogram"**)

f=1

**break**

**if** f==0:

print(**"String is isogram"**)

1. Given a string, find the Mexican wave?

ip=input(**"Enter input in lower case:"**)  
 l=[]  
 for i in range(len(ip)):  
 k=ip[i].upper()  
 x=**""** x=ip[0:i]+k+ip[i+1:len(ip)]  
 l.append(x)  
 print(l)

1. Given a number find the largest number by deleting single digit(order of digits is remain same)?

n=input()

l=[]

for i in range(len(n)):

s=""

s=s+n[0:i]+n[i+1:]

l.append(int(s))

print(max(l))

1. Given a number, find the largest number by shuffling digits?

n=int(input())

n1=n

l=[]

**while**(n>0):

r=n%10

l.append(r)

n=n//10

l.sort(reverse=**True**)

**for** i **in** l:

print(i,end=**""**)

1. Compute the word frequency in message?

l=list(input().split())

l1=[]

**for** i **in** l:

**if** i **not in** l1:

l1.append(i)

**for** i **in** l1:

cnt=0

**for** j **in** range(len(l)):

**if**(i==l[j]):

cnt+=1

print(i+**"="**,cnt)

1. RGB to HEX conversion and vice versa

rgb=list(map(int,input(**"enter RGB"**).split()))

rgb=tuple(rgb)

print(**"HEX is:"**,end=**""**)

print(**'%02x%02x%02x'** % rgb)

val=input(**"enter Hex"**)

val=val.lstrip(**'#'**)

lv = len(val)

print(tuple(int(val[i:i+lv//3], 16) **for** i **in** range(0, lv, lv//3)))

1. Generate accumulated string?

s=**"abcde"** l=list(s)  
 s1=**""  
 for** i **in** range(len(l)):  
 **if**(i==len(l)-1):  
 s1=s1+l[i].upper()+l[i]\*i  
 **else**:  
 s1=s1+l[i].upper()+l[i]\*i+**"-"** print(s1)