Name : Dhanush U PS no. :99005005

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

element\_list=list(map(int,input().split()))

element\_dict={}

count=0

for i in element\_list:

if i in element\_dict.keys():

element\_dict[i]+=1

else:

element\_dict[i]=1

for key,value in element\_dict.items():

if value==1:

print(key)

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

mean\_list=sorted(list(map(int,input().split())))

mean\_num=sum(mean\_list)/len(mean\_list)

diff\_list=list(map(lambda x:x-mean\_num,mean\_list))

min\_num=min(list(map(abs,diff\_list)))

req\_num=int(mean\_num+min\_num)

print(req\_num,end=" ")

if(abs(mean\_list[mean\_list.index(req\_num)-1]-mean\_num)<=min\_num):

print(mean\_list[mean\_list.index(req\_num)-1])

1. Find the average speed of vehicle, given the distance travelled for fixed time intervals

distance\_covered=list(map(int,input().split()))

print(sum(distance\_covered)/len(distance\_covered))

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

station\_num=int(input())

onboarding=list(map(int,input().split()))

alighting=list(map(int,input().split()))

passengers=[0]\*len(onboarding)

passengers[0]=onboarding[0]-alighting[0]

for i in range(1,len(onboarding)):

passengers[i]=passengers[i-1]+onboarding[i]-alighting[i]

print(passengers[station\_num])

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

original\_list=list(map(int,input().split()))

modified\_list=list(map(int,input().split()))

check\_dict={}

for i in original\_list:

if i in check\_dict.keys():

check\_dict[i]+=1

else:

check\_dict[i]=1

for i in modified\_list:

if i in check\_dict.keys():

check\_dict[i]-=1

else:

check\_dict[i]=-1

for key,value in check\_dict.items():

if value==1:

print(key,end=" ")

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

list1=sorted(list(map(int,input().split())))

print(list[1]-list[0])

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

input\_list=list(map(int,input().split()))

mean\_of\_nums=sum(input\_list)/len(input\_list)

for i in input\_list:

if i<mean\_of\_nums:

print(i,end=" ")

1. Correct the malformed time string, for e.g "5:70:65" to "6:11:05”

hours,minutes,seconds=list(map(int,input().split(":")))

while(seconds>=60):

seconds-=60

minutes+=1

while(minutes>=60):

minutes-=60

hours+=1

print(str(hours)+":"+str(minutes)+":"+str(seconds))

1. Correct the malformed date string, for e.g. "45/8/2018" to "14/9/2018"

days,months,year=list(map(int,input().split("/")))

while(days>=30):

days-=30

months+=1

while(months>=12):

months-=12

year+=1

print(str(days)+"/"+str(months)+"/"+str(year))

1. Convert ip address from "a.b.c.d" format into integer and viceversa

ip\_address=list(map(int,input().split(".")))

ip\_int=(ip\_address[0] \* (256\*\*3)) + (ip\_address[1] \* (256\*\*2)) + (ip\_address[2] \* (256\*\*1)) + (ip\_address[3])

print(ip\_int)

1. Check whether given string is isogram or not

input\_string=str(input())

print(sorted(list(input\_string))==sorted(set(input\_string)))

1. Given a string, find the mexican wave

input\_string=str(input())

mexican\_wave=[]

for i in range(len(input\_string)):

mexican\_wave.append(input\_string[:i]+input\_string[i].upper()+input\_string[i+1:])

print(mexican\_wave)

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

input\_list=list(map(int,list(str(input()))))

input\_list.remove(min(input\_list))

print("".join(list(map(str,input\_list))))

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

input\_list=sorted(list(map(int,list(str(input())))))[::-1]

print("".join(list(map(str,input\_list))))

1. Compute the word frequency in given message

input\_string=str(input())

word\_freq={}

for i in input\_string:

if i in word\_freq.keys():

word\_freq[i]+=1

else:

word\_freq[i]=1

for key,value in word\_freq.items():

print("{} repeats {} times".format(key,value))

1. RGB to Hex conversion and vice versa, e.g. (255,0,255) into 0XFF00FF

RGB\_input=list(map(int,input().strip("()").split(",")))

HEXvalue="0x"

for i in RGB\_input:

HEXvalue+=hex(i)[2:]

print(HEXvalue)

1. Generate accumulated strings.e.g. abcd ==> A-Bb-Ccc-Dddd

input\_string=str(input()).upper()

acc\_list=[]

count=0

for i in input\_string:

acc\_list.append(i+chr(ord(i)+32)\*count)

count+=1

print("-".join(acc\_list))