List Task

1.) How to find the missing number in integer array of 1 to 100? :=> {1,2,3,4,5,7,8,9,10}

2.) How to find duplicate number on Integer array in python? :=> {1,2,3,4,5,7,8,9,10,2,5 }

list=[1,2,3,4,5,7,8,9,10,2,5]  
  
for i in range(0,len(list)):  
 for j in range(i+1,len(list)):  
 if list[i]==list[j]:  
 print(list[j])

3.) How to check if array contains a number in python? :=>

4.) How to find largest and smallest number in unsorted array?

list1=[4,1,3,8,7,6,9,5,20,38,55,47,69]

max=0

min=0

for i in range(0,len(list1)):

if max<list1[i]:

max=list1[i]

print(max)

min=max

for j in range(0,len(list1)):

if min>list1[j]:

min=list1[j]

print(min)

5.) How to find repeated numbers in an array if it contains multiple duplicates?

list=[1,2,3,4,5,7,8,9,10,2,5]  
  
for i in range(0,len(list)):  
 for j in range(i+1,len(list)):  
 if list[i]==list[j]:  
 print(list[j])

6.) Write a program to remove duplicates from array in python?

list=[1,2,3,4,5,7,8,9,10,2,5]  
list1 = []  
for i in list:  
 if i not in list1:  
 list1.append(i)  
print(list1)

7.) How to sort an array in place using QuickSort algorithm?

8.) Write a program to find intersection of two sorted arrays in python? :=> Common Elements

9.) How to find  elements in Array in Binary Search ?

10.) How to find largest two numbers from an integer array?

11.) How to merge sorted array?

12.) How to find sub array with largest product in array of both positive and negative number?

13.) How to declare a Two-dimensional Array ?

14.) Write a python Code to print all negative elements in an array. :=> {1,-1,5,6,-7,4,-9,-10}

list={1,-1,5,6,-7,4,-9,-10,-53,6,8,-4}  
neg=0  
for i in list:  
 if i<0:  
 print(i)

15.) Write a python Code to find sum of all array elements. :=>  {1,2,3,4,5,6,7}

list=[1,2,3,4,5,7,8,9,10]  
total=0  
for i in list:  
 total+=i  
print(total)

16.) Write a python Code to find maximum and minimum element in an array. :=>  {1,2,3,4,5,6,7}

list1=[4,1,3,8,7,6,9,5,20,38,55,47,69]

max=0

min=0

for i in range(0,len(list1)):

if max<list1[i]:

max=list1[i]

print(max)

min=max

for j in range(0,len(list1)):

if min>list1[j]:

min=list1[j]

print(min)

17.) Write a python Code to find second largest element in an array. :=>  {1,2,3,4,5,6,7}

18.) Write a python Code to count total number of even and odd elements in an array. :=>  {1,2,3,4,5,6,7}

list=[1,2,3,4,5,7,8,9,10,12,14,13,15,18,19]  
odd=0  
even=0  
for i in list:  
 if i%2:  
 even+=1  
 else:  
 odd+=1  
print("even:",even)  
print("odd:",odd)

19.) Write a python Code to count total number of negative elements in an array. :=>  {1,2,3,4,5,6,7}

list={1,-1,5,6,-7,4,-9,-10,-53,6,8,-4}  
total=0  
for i in list:  
 if i<0:  
 total+=1  
print(total)

20.) Write a python Code to copy all elements from an array to another array. :=>  {1,2,3,4,5,6,7}

list=[1,2,3,4,5,7,8,9,10,12,14,13,15,18,19]  
list1=[]  
for i in range(0,len(list)):  
 list1=list[i]  
 print(list1)

21.) Write a python Code to find the average of elements inside an Array :=> {1,2,3,4,5,6,7}

list=[1,2,3,4,5,7,8,9,10,12,14,13,15,18,19]  
total=0  
m=0  
n=len(list)+1  
for i in list:  
 total +=i  
print(total)  
m=total+i  
print(m/n)