**ASSIGNMENT ANSWERS 1**

#QUESTION 1

public class Main{

public static void main(String[] args){

int nums[] = {-2,7,11,5,2};

int target = 9;

int output[] = new int[2];

for(int i=0; i<nums.length; i++){

for(int j=i+1; j<nums.length; j++){

if((nums[i]+nums[j])==target){

output[0] = i;

output[1] = j;

break;

}

}

}

System.out.println(output[0]+" "+output[1]);

}

}

#QUESTION 2

public class Main{

public static void main(String[] args){

int ar[] = {3,2,2,3};

int target = 3;

int n = remov(ar, target);

System.out.println(n);

for(int i=0; i<ar.length; i++){

System.out.print(" "+ar[i]);

}

}

public static int remov(int ar[], int target){

int c=0;

for(int i=0; i<ar.length; i++){

if(ar[i] == target){

shift(ar, i, ar.length-1-c);

ar[ar.length-1-c]=0;

c++;

}

}

return c;

}

public static void shift(int ar[],int from, int till){

for(int i=from; i<till; i++){

ar[i] = ar[i+1];

}

}

}

#QUESTION 3

def searchInsert(nums, target):

start = 0

end = len(nums) - 1

while start <= end:

mid = (start + end) // 2

if nums[mid] == target:

return mid

elif target < nums[mid]:

end = mid - 1

else:

start = mid + 1

return start

nums = [1, 3, 5, 6]

target = 5

print(searchInsert(nums, target))

#QUESTION 4

public class Main{

public static void main(String[] args){

int ar[] = {1,2,3,4};

ar[ar.length-1]=ar[ar.length-1]+1;

for(int i=0; i<ar.length; i++){

System.out.print(ar[i]+" ");

}

}

}

#QUESTION 5

public class Main {

public static int[] merge(int[] nums1, int m, int[] nums2, int n) {

int i = m - 1;

int j = n - 1;

int k = m + n - 1;

while (i >= 0 && j >= 0) {

if (nums1[i] > nums2[j]) {

nums1[k] = nums1[i];

i--;

} else {

nums1[k] = nums2[j];

j--;

}

k--;

}

while (j >= 0) {

nums1[k] = nums2[j];

j--;

k--;

}

return nums1;

}

public static void main(String[] args) {

int[] nums1 = {1, 3, 5, 0, 0, 0};

int m = 3;

int[] nums2 = {2, 4, 6};

int n = 3;

int[] merge = merge(nums1, m, nums2, n);

for(int i=0; i<merge.length; i++) {

System.out.print(merge[i]+" ");

}

}

}

#QUESTION 6

nums = [1,2,3,1]

n1 = list(set(nums))

n1 = len(n1)

n2 = len(nums)

print((n1!=n2))

#QUESTION 7

public class Main{

public static void main(String[] args){

int ar[] = {0,1,2,0,3,1,0,0,3,9};

int l = 0;

for(int i=0; i<ar.length; i++){

if(ar[i]!=0){

ar[l] = ar[i];

l++;

}

}

while(l<ar.length){

ar[l]=0;

l++;

}

for(int i=0; i<ar.length; i++){

System.out.print(ar[i]+" ");

}

}

}

#QUESTION 8

public class Main{

public static void main(String[] args){

int ar[] = {1,2,2,4};

for(int i=0; i<ar.length-1; i++){

if(ar[i]==ar[i+1]){

System.out.println(ar[i]+" "+(ar[i]+1));

break;

}

}

}

}