```python
# 1.Write a function that takes a List of number and print each number in the
following way:  the value at index 0 is 5

'''list = [5,3,7,8,9,10]

def func(list):
    index = 0
    for l in list:
        print(index, l)
        index+=1
func(list)'''


# 2. Write a Python program that finds and returns the minimum value in a
list of integers.
#Example Input: [8, 3, 5, 1, 6]
#Example Output: 1
'''int = (5,3,7,1,9,4)
mini = min(int)
print(f"smallest number is {mini}")
'''

#

'''int = [8,3,5,1,0,-1,6]
def min(int):
    int.sort()
    print(f"Mininum Value in the list:", int[0])

min(int)'''


# 3.Write a function that should take a target and the function should create
a list of 10 numbers that can be divisible by the target.
  #Ex INPUT : target = 4
  #Output should be: [8,12,16,20,24 …..]
  #Explanation: you can see that each number can be divisible by 4.

'''def table(num):
    for i in range(1,11):
        divi = num*i
        print(divi)

table(4)
'''

# 4.Write a Python program that merges two lists into one.
#Example Input: List 1: [1, 2, 3], List 2: [4, 5, 6]
#Example Output: [1, 2, 3, 4, 5, 6]

'''List_1=  [1, 2, 3]
List_2=  [4, 5, 6]
print(List_1 + List_2)'''
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'''l1 = [1,2,3]
l2 = [4,5,6]
def joint(l1,l2):
    joint = l1+l2
    print(joint)
joint(l1,l2)'''


# 5.Write a Python program that finds and returns the largest number from a
list of integers.
#Example Input: [3, 8, 1, 5, 10]
#Example Output: 10

'''list = [3,8,1,5,10]
max = max(list)
print(f"Biggest number is {max}")'''

#or

'''list =[3,8,1,5,10]
def large(list):
    list.sort()
    print("Largest number from the list is ",list[-1])
large(list)'''


#6. Question: Write a Python program that reverses a given list of integers.
Example Input: [1, 2, 3, 4, 5]
#Example Output: [5, 4, 3, 2, 1]

'''def rev(list):
    new_list = list[::-1]
    return new_list

list = [1,2,3,4,5]
print(rev(list))'''

#or

''''''''''list = [1,2,3,4,5]

def rev(list):
    list2 = 0
    for i in list:
        list2 = (i + list2)

        print(list2)
rev(list)
''''''''''
#or

'''
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list = [1,2,3,4,5]
list.sort(reverse = True)
print(list)'''

# 7.Write a Python program that removes duplicate elements from a list and
  returns the new list.
#Example Input: [1, 2, 2, 3, 4, 4, 5]
#Example Output: [1, 2, 3, 4, 5]

'''list = set((1,2,2,3,4,4,5))
print(list)'''

#or

'''list = [1,2,2,3,4,4,5]
new_list = set()
l=0
def rd(list):
    for i in list:
        new_list.add(i)
    print(new_list)
rd(list)'''

#or
# removes duplicate alltogether

'''list = [1,2,2,3,4,4,5]
new_list = []
for i in list:
    if i in new_list:
        new_list.remove(i)
    else:
        new_list.append(i)
print(new_list)
    '''


# 8.Write a Python program that counts how many times a specific target
  appears in a list.
#Example Input: List: [1, 2, 2, 3, 4, 4, 4, 5], target: 4
#Example Output: 3

'''list = [1,9,2,2,9,9,3,9,4,4,4,9,5]
target = 4
def func(target):
    count = 0
    for i in list:
        if i ==target:
            count+=1
    print(f"{target} appears {count} times")
func(target)'''

# 9.Write a Python program that creates a multiplication table for a given
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number using a list.
#Example Input: 3
#Example Output: [3, 6, 9, 12, 15, 18, 21, 24, 27, 30]

'''def table(num):
    for i in range(1,11):
        product = num*i
        print(f"{num} * {i} = {product}")
table(3)'''


# 10.Write a Python program that checks if a given list of integers is sorted
in ascending order.
#Example Input: [1, 2, 3, 4, 5]
#Example Output: True
#Example Input: [1, 3, 2, 4, 5]
#Example Output: False
#list==sorted(list,reverse=True)

'''list1= [1, 3, 2, 4, 5]

if list1 == sorted(list1):

    print (True )
else:
    print(False)'''

#

'''list2 = [1,2,3,4,5]
def sort(list2):
    if list2 == sorted(list2):
        print(True)
    else:
        print(False)

sort(list2)'''

# 11.Write a Python program that counts the number of vowels in a given
string.
#Example Input: "hello world"
#Example Output: 3

'''list = "hello world"
vowels = ['a','e','i','o','u']
def func(vowels):
    count = 0
    for i in list:
        if i in vowels:
            count+=1
    print(f" The number of vowels in {list} is {count}")

func(vowels)'''
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# 12.Write a Python program to reverse a given string.
#Example Input: "hello"
#Example Output: "olleh"
'''reverse_string = ""
new_string = "hello"
for i in range (len(new_string)-1,-1,-1):
    reverse_string+= new_string[i]
print(reverse_string)'''

#or

'''string = "hello"
new_string = ""
#def rev(string):
for i in string:
    new_string = i + new_string
print(new_string)
#rev(string)'''

# 13. Remove spaces from a string
'''str = "    hello world  "
print(str.upper()) # upper
print(len(str)) #lenght of list
print(str.strip()) #white space removing in the begining or end
print(str.replace(" ","")) #remove spaces from a string
'''

# 14.Count the number of words in a string
'''s ="this is a treat"
print(len(s.split())) #count the number of words in a striing'''

# 15.Print Even Numbers in a Range
'''for i in range(1,11):
    if i %2 ==0:
        print(i)'''

# 16.Calculate the Sum of Digits in a Number
'''total =0
list = 1,2,3,4
for i in list:
    total = i+total
print(total)'''

# or

'''num = 128424
def func(num):
    sum = 0
    for i in str(num):
        sum = sum+int(i)
    print(sum)
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func(num)'''

# 17. Count Occurrences of Characters in a String
# Question: Write a Python program that counts the occurrences of each
character in a string and stores them in a dictionary.
# Example Input: "hello"
# Example Output: {'h': 1, 'e': 1, 'l': 2, 'o': 1}

'''str = "hello"

def func(str):

    for i in str:
        x = str.count(i)
        #print(f"{i} : {x}")
        my_dict = { f"{i} : {x}"}

        print(my_dict)
func(str)
'''

#18. Find the Key with the Maximum Value in a Dictionary
#Question: Write a Python program to find the key with the maximum value in a
dictionary.
# Example Input: {'a': 10, 'b': 20, 'c': 15}
# Example Output: 'b'

'''my_dict =  {
    "a" : 10,
    "b" : 20,
    "c" : 15
}
print(my_dict)
#print(max(zip(my_dict.values(), my_dict.keys())))


print(f"max value is in the key :",(max(my_dict, key = my_dict.get)))

#print(my_dict.get("c"))'''


# 19.Find the Intersection of Two Sets
# Question: Write a Python program to find the intersection of two sets.
# Example Input: Set 1: {1, 2, 3}, Set 2: {2, 3, 4} ● Example Output: {2, 3}

'''set1 = {1, 2, 3}
set2 = {2, 3, 4}
common_set = set1.intersection(set2)
print(common_set)'''

# 20. Remove Duplicates from a List Using a Set
#● Question: Write a Python program that removes duplicates from a list using
a set.
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#● Example Input: [1, 2, 2, 3, 4, 4, 5]
#● Example Output: [1, 2, 3, 4, 5]
'''list = [1, 2, 2, 3, 4, 4, 5]
no_dupe = set((list))
print(no_dupe)
'''
#or

'''list = [1,2,2,3,4,4,5]
new_list = set()
def func(list):
    for i in list:
        new_list.add(i)
    print(new_list)
func(list)
'''

''''''l = [1,2,3,4,5,6,7,8,3,2,4,5,6]
l2 = []
for i in l:
    if i in l2:
        l2.remove(i)
    else:
        l2.append(i)
    print(l2)''''''
```