

#Q1: Write a Python program to map two lists into a dictionary.

```
L1 = [1,2,3,4]
L2 = ['a','b','c','d']
newDict = {}
for i in range(len(L1)):
    newDict[L1[i]] = L2[i]
print(newDict)
```

#Q2: Write a Python program that accepts a string and calculate the number of digits and letters

```
userString = input("Enter the string: ").replace(" ", "").replace(",","").replace(".", "")
baseList = list(userString)
charCount = 0
intCount = 0
for i in range(len(baseList)):
    flagChar = True
    for j in range(10):
        if baseList[i] == str(j):
            intCount += 1
            flagChar = False
            break
    if(flagChar == True):
        charCount += 1
print("Letters", charCount)
print("Digits", intCount)
```

#Q3: Write a Python function that takes a list of words and returns the length of the longest one.

```
numberOfValues = int(input("Enter number of words in list: "))
checkList = []
while (numberOfValues > 0):
    listValue = input("Enter the word you want to add in list: ")
    checkList.append(listValue)
    numberOfValues -= 1
maxLengthString = max(checkList, key=len)
```

```
print("Longest word:",maxLengthString)
print("Length of the longest word:",maxLengthString,len(maxLengthString))
```

#Q4: Write a Python program to construct the following pattern, using a nested loop number.

```
def printPattern(rows):
    for i in range(rows+1):
        for k in range(i):
            print(i,end=" ")
        print("")
numOfRows = int(input("Enter number of rows: "))
printPattern(numOfRows)
```

#Q5: Check whether a number is russian prime or not.

```
def isRussianPrime(rpnum):
    varLength = len(rpnum)
    newList = []
    while varLength>0:
        listItem = rpnum[:varLength]
        newList.append(int(listItem))
        varLength -= 1
    flagPrime = True
    for i in range(len(newList)):
        for j in range(2,newList[i]):
            if newList[i]%j == 0:
                flagPrime = False
                break
    if(flagPrime == True):
        print("{} is Russian Prime".format(rpnum))
    else:
        print("{} is not Russian Prime".format(rpnum))
newInput = input("Enter the number to check whether it's Russian Prime or Not: ")
isRussianPrime(newInput)
```