**Python Assignment 01**

**Marks**

**Problem - 1**

* Write Python program to solve [Max Split](https://codeforces.com/group/MWSDmqGsZm/contest/219856/problem/S?fbclid=IwAR1qi6o8WBDOrdzcZ--U5YO_40SSQmmLbZ8jggB6CFIRqog1ukVL_Z2wK2s) 20

def fun(s):

store=[]

count\_s=0

string=""

for char in s:

if char=='L':

string+=char

count\_s+=1

else :

string+=char

count\_s-=1

if count\_s==0:

store.append(string)

string=""

return store

s=input()

result=fun(s)

print(len(result))

# print(result)

for r in result:

print(r)

**Problem - 2**

* Write Python program to solve [Good Sequence](https://atcoder.jp/contests/arc087/tasks/arc087_a)

n = int(input())

freq = {}

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

for i in items:

if i in freq:

freq[i] += 1

else:

freq[i] = 1

result = 0

for key, value in freq.items():

if key < value:

result += value-key

elif key > value:

result+= value

print(result)

**Problem - 3**

**a**

* Write the difference between List and Dictionary of Python.

**List:**

List is a collection of items. Here elements are indexed starting from 0.

elements can be of any data type. Each element can be accessed by their index.

**Ex:** list = [1, 2, 3, 4, 5]

**Dictionary:**

Dictionary in Python is a collection of unordered keys and values. Each value can be accessed by using its key. key and value can be any data type. We can get values by using its key, not an index.

**Ex:** dict = {"name": "Saiful", "age": 23, "city": "Khulna"}

**b**

Write about \*args and \*\*kwargs of Python with proper examples.

**\*args**: it accepts any number of arguments that are sent to it. These arguments are made a tuple.

Ex:

def all(\*numbers):

print(numbers)

total = all(1,2,3,4,5)

**\*\*kwargs: it** accepts any number of keyword arguments and the arguments are packed Into a dictionary.

ex:

def info(\*\*all):

print(all)

info(name='Auny', age='24')

**Problem - 4**

* Write Python program to solve [Minimize Number](https://codeforces.com/group/MWSDmqGsZm/contest/219774/problem/P)

n = int(input())

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

count=0

flag=1

while True:

for i in range(n):

if(numbers[i]%2!=0):

print(count)

flag=0

break

else:

numbers[i]=numbers[i]/2

count+=1

if(flag==0):

break

**Problem - 5**

* Take a number from the user and draw a pyramid using PyAutoGUI

import pyautogui

n = int(input())

for i in range(n):

for j in range(i+1):

pyautogui.write("\* ", interval=0.10)

pyautogui.press('enter')