**Day 2 python programming**

**1.sum of series 1^2+2^2+3^2+----------+n^2**

def square(num) :

sum = 0

for i in range(1, num+1) :

sum= sum + (i \*\*2)

return sum

num = 6

print("Sum of squares is:",square(num))

**output:**sum of squares is:91

**2.Lcm and Gcd**

import math

a=4

b=6

v=3

print(math.gcd(a,b,c))

print(math.lcm(a,b,c))

**output:**1

12

**3.length of the last word**

S=”ravi is playing”

Length=len(s.split()[-1])

Print(length)

**Output:**7

**4.composite numbers b/w 2 numbers**

m=30

n=35

for i in range(m,n+1):

factorial=0

for j in range(1,i):

if i%j==0:

Factor=j

if factorial>1:

Print(i)

**Output:** 30

32

33

34

35

**5.squar,cube,sqrtroot**

Import math

a=4

b=3.5

square=a\*\*2,b\*\*2

cube=a\*\*3,b\*\*3

print(square)

print(cube)

print(math.sqrt(a))

print(math.sqrt(b))

**output:**16 12.25

64 42.875

2.0 1.8708

**6.combination of the given numbers**

a=1

b=2

c=3

d=[1,2,3]

d.append(a)

d.append(b)

d.append(c)

**for** i **in** range(0,3):

**for** j **in** range(0,3):

**for** k **in** range(0,3):

**if**(i!=j&j!=k&k!=i):

**print**(d[i],d[j],d[k])

**output:**1 2 3

1 3 2

2 1 3

2 3 1

3 1 2

3 2 1

**7.prime numbers b/w 2 numbers**

m=900

n=937

For i in range (m,n+1):

If i>1:

for j in range(2,i):

if(i%j==0):

break

else:

Print(i)

**Output:**9 0 7

9 1 1

9 1 9

9 2 9

9 3 7

**8.leap year or not**

Year=2000

If(year%4==0 and year%100!=0) or (year%400==0):

Print(“leap year: “,+str(year))

else:

Print(“not a leap year: “,+str(year))

**Output:** leap year:2000

**9.palindrome or not**

def is\_palindrome(num):

return str(num)==str(num)[::-1]

number=123

if is palindrome(num):

Print(num,”is a palindrome”)

else:

Print(num,”is a not a palindrome”)

**Output:**121 is a palindrome

**10.sum of sqrt of even and odd numbers**

num=[1,2,3,4,5]

sum\_even=sum(x\*\*2 for x in num if x%2==0)

sum\_odd=sum(x\*\*2 for x in num if x%2!=0)

Print(“even”,sum\_even,”odd”,sum\_odd)

**Output:** even 20 odd 35