

CSA0888-PYTHON PROGRAMMING FOR NATURAL LANGUAGE PROCESSING

IMPORTANT QUESTIONS BY DR E ANBALAGAN, PROFESSOR/CSE

1) WRITE A PYTHON PROGRAM TO LEAP YEAR OR NOT?

SOLUTION:-

```
n=int(input("enter the year:"))  
(n%400==0) and (n%100==0):  
    print("leap year")  
elif(n%4==0)and(n%100!=0):  
    print("leap year")  
else:  
    print("not a leap year")
```

```
>> enter the year:2020  
leap year  
=> RESTART: C:/Users/  
>> enter the year:2024  
leap year  
=> RESTART: C:/Users/  
>> enter the year:2003  
not a leap year  
=>
```

2) WRITE A PYTHON PROGRAM TO PRINT AREA OF THE CIRCLE AND TRIANGLE?

SOLUTION: -

```
r=int(input("enter the radius value:"))
area_circle=3.14*r*r
print("Area of circle:",area_circle)
base=int(input("enter the base of the triangle:"))
height=int(input("enter the height of the triangle:"))
area_triangle=0.5*base*height
print("Area of triangle:", area_triangle)
```

```
enter the radius value:8
Area of circle: 200.96
enter the base of the triangle:6
enter the height of the triangle:8
Area of triangle: 24.0
|
```

3) WRITE A PYTHON PROGRAM TO PRINT SIMPLE INTREST AND COMPOUND INTREST?

SOLUTION:-

```
p=int(input("enter the principle amount:"))
r=int(input("enter the rate:"))
t=int(input("enter the time:"))
simple=int(p*(r/100)*t)
compound=round((p*(1+r/100)**t)-p)
print("simple:",simple)
print("compound:", compound)
```

```
enter the principle amount:80000
enter the rate:10
enter the time:5
simple: 40000
compound: 48841
|
```

4) WRITE A PYTHON PROGRAM TO CHECK WHETHER THE GIVEN NUMBER IS ODD OR EVEN?

SOLUTION: -

```
n=int(input("enter the number:"))
if(n%2==0):
    print("even number")
else:
    print("odd number")
```

```
= RESTART: C:/Users,
enter the number:5
odd number
```

```
= RESTART: C:/Users,
enter the number:63
odd number
```

```
= RESTART: C:/Users,
enter the number:88
even number
```

|

5) WRITE A PYTHON PROGRAM TO CHECK WHETHER THE GIVEN NUMBER IS POSITIVE OR NEGATIVE?

SOLUTION:-

```
n=int(input("enter n: "))
if n>0:
    print("positive")
else:
    print("negative")
```

```
>>> enter n: -9
negative
= RESTART:
enter n: 6
positive
|
```

6) WRITE A PYTHON PROGRAM TO CONVERT DECIMAL NUMBER TO BINARY?

SOLUTION: -

```
n=float(input("enter the decimal number:"))
```

```
binary=0
```

```
j=1
```

```
while(n!=0):
```

```
    i=n%2
```

```
    binary=binary+(i*j)
```

```
    n=n//2
```

```
    j *=10
```

```
print("binary:",binary)
```

```
b=input("enter binary number:")
```

```
decimal=0
```

```
power=0
```

```
for i in reversed(b):
```

```
    decimal+=int(i)(2*power)
```

```
    power+=1
```

```
print(decimal)
```

```
Python 3.12.0 (tags/v3.12.0:010100
Type "help", "copyright", "credits" o
>>
= RESTART: C:/Users/likit/OneDriv
enter the decimal number:5.6
binary: 101.6
enter binary number:
```

7) WRITE A PYTHON PROGRAM TO PRINT THE GRADE SYSTEM?

SOLUTION: -

```
m1=int(input("enter the mark1:"))
m2=int(input("enter the mark2:"))
m3=int(input("enter the mark3:"))
total=m1+m2+m3
average=total/3
if(average>=90 and average<=100):
    print("Average:",average)
    print("you got S grade")
elif(average>=80 and average<90):
    print("Average:",average)
    print("you got A grade")
elif(average>=70 and average<80):
    print("Average:",average)
    print("you got B grade")
elif(average>=60 and average<70):
    print("Average:",average)
    print("you got C grade")
elif(average>=50 and average<60):
    print("Average:",average)
    print("you got D grade")
elif(average<50 and average>0):
    print("please enter valid input")
```

File Edit Shell Debug Options Window Help

Python 3.12.0 (tags/v3.12.0
Type "help", "copyright", "c

>>>

===== RESTART'

enter the mark1:90

enter the mark2:89

enter the mark3:85

Average: 88.0

you got A grade

>>>

8) WRITE A PYTHON PROGRAM TO FIND ALL PERMUTATION OF GIVEN NUMBER?

SOLUTION: -

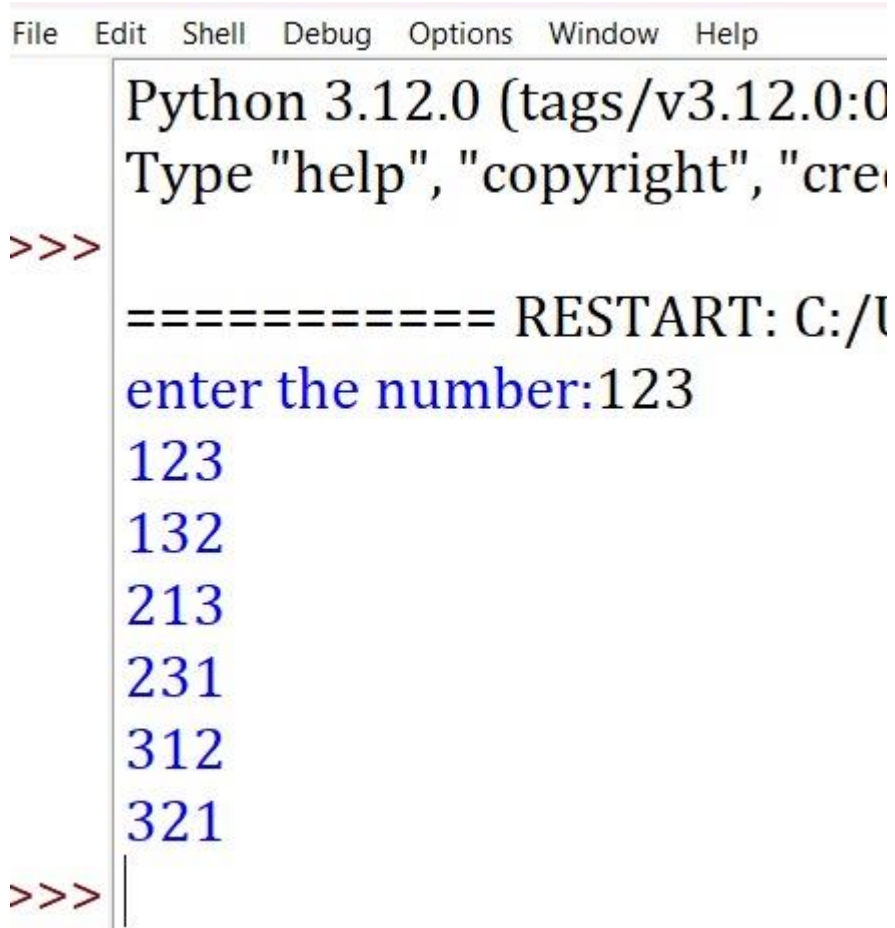
```
import itertools

n=input("enter the number:")

res=list(itertools.permutations(n))

for i in res:

    print(".".join(i))
```



The screenshot shows a Python 3.12.0 IDLE shell window. The menu bar at the top includes File, Edit, Shell, Debug, Options, Window, and Help. The shell displays the following text:

```
Python 3.12.0 (tags/v3.12.0:0
Type "help", "copyright", "cre
>>>
===== RESTART: C:/I
enter the number:123
123
132
213
231
312
321
>>> |
```

9) WRITE A PYTHON PROGRAM TO PRINT SUM OF THE SERIES?
(1+2+3+4+....+n)

SOLUTION: -

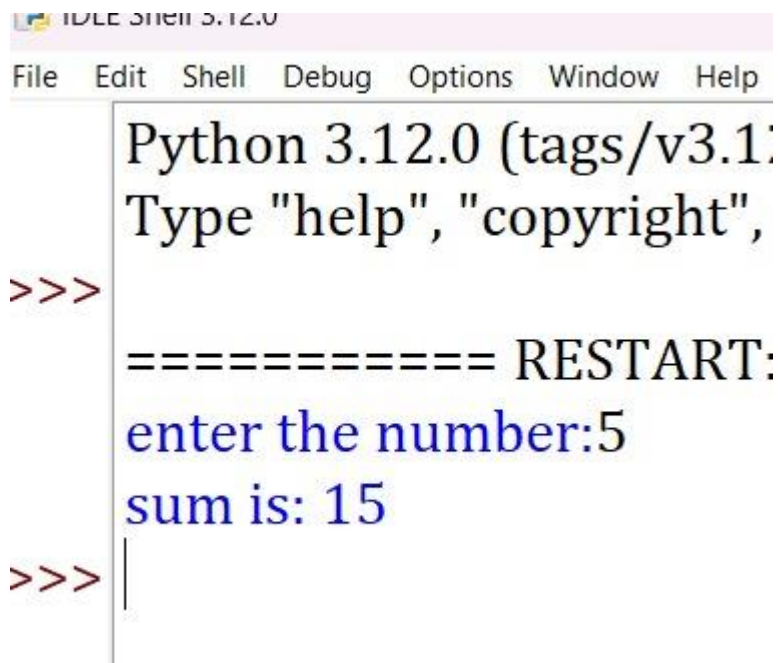
```
n=int(input("enter the number:"))
```

```
sum=0
```

```
for i in range(n+1):
```

```
    sum+=i
```

```
print("sum is:", sum)
```



The screenshot shows the Python IDLE Shell 3.12.0 interface. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell window displays the following text:

```
Python 3.12.0 (tags/v3.12.0:
Type "help", "copyright",
>>>
===== RESTART:
enter the number:5
sum is: 15
>>> |
```

10) WRITE A PYTHON PROGRAM TO PRINT SUM OF SQUARE OF THE SERIES? (1 2+2 2+3 2+4 2+..+n 2)

SOLUTION: -

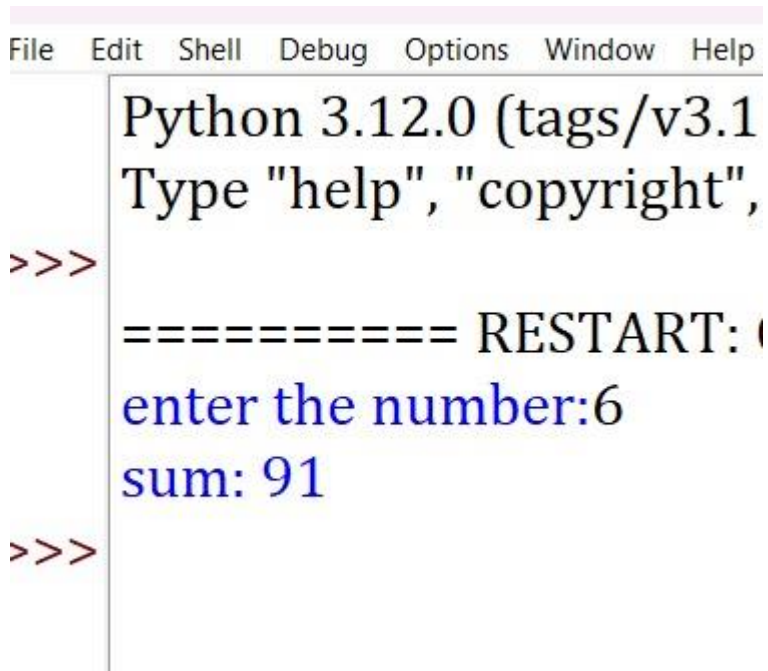
```
n=int(input("enter the number:"))
```

```
sum=0
```

```
for i in range(n+1):
```

```
    sum+=i**2
```

```
print("sum:" , sum)
```



```
File Edit Shell Debug Options Window Help
Python 3.12.0 (tags/v3.1
Type "help", "copyright",
>>>
===== RESTART: (
enter the number:6
sum: 91
>>>
```

11) WRITE A PYTHON PROGRAM TO FIND THE FACTORIAL OF GIVEN NUMBER?

SOLUTION:

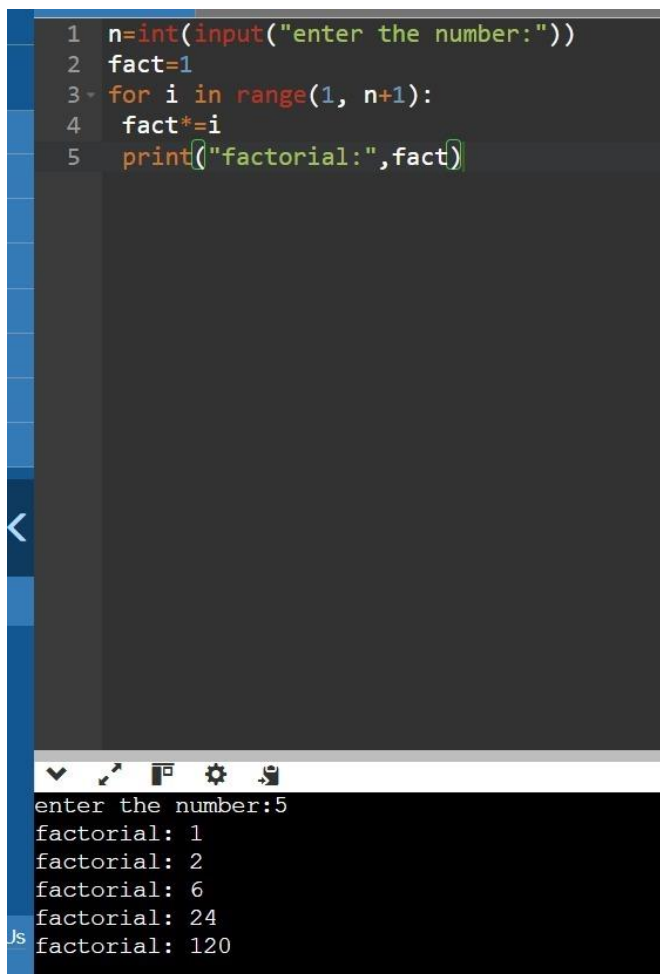
```
n=int(input("enter the number:"))
```

```
fact=1
```

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

```
    fact*=i
```

```
print("factorial:",fact)
```



The screenshot shows a Python IDE with a dark theme. The editor window displays the following code:

```
1 n=int(input("enter the number:"))
2 fact=1
3 for i in range(1, n+1):
4     fact*=i
5 print("factorial:",fact)
```

Below the editor, the output console shows the results of running the program for different inputs:

```
enter the number:5
factorial: 1
factorial: 2
factorial: 6
factorial: 24
factorial: 120
```

12) WRITE A PYTHON PROGRAM TO FIND SUM OF THE SERIES OF FACTORIAL? ($1!+2!+3!+4!+...+n!$)

SOLUTION:-

```
n=int(input("enter the number:"))
```

```
fac=1
```

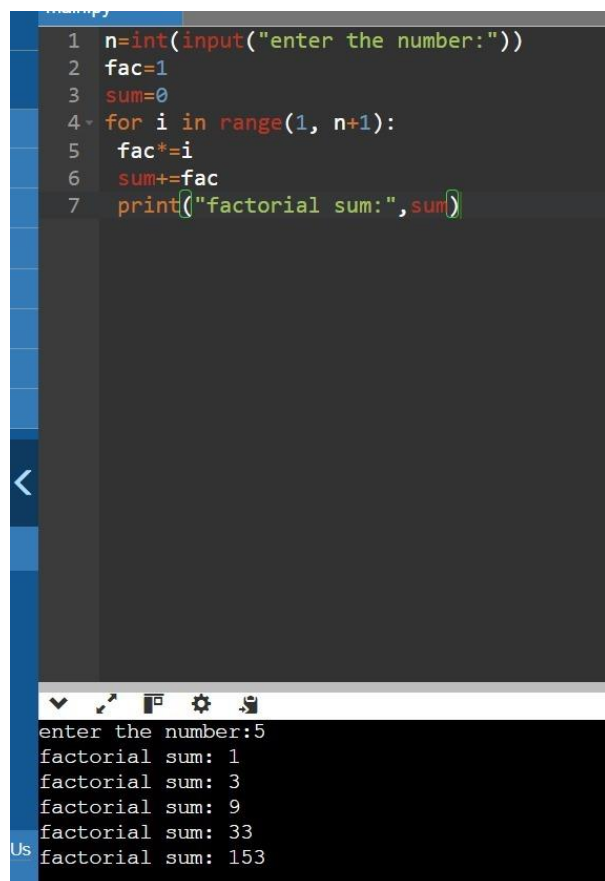
```
sum=0
```

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

```
    fac*=i
```

```
    sum+=fac
```

```
print("factorial sum:",sum)
```



The screenshot shows a Python IDE with a dark theme. The code is written in a file named 'main.py'. The code is as follows:

```
1 n=int(input("enter the number:"))
2 fac=1
3 sum=0
4 for i in range(1, n+1):
5     fac*=i
6     sum+=fac
7 print("factorial sum:",sum)
```

The output of the program is shown in the console at the bottom:

```
enter the number:5
factorial sum: 1
factorial sum: 3
factorial sum: 9
factorial sum: 33
factorial sum: 153
```

13) WRITE A PYTHON PROGRAM TO PRINT PATTERN? 1 1 2 1 2 3 1 2 3
4 1 2 3 4 5

SOLUTION:-

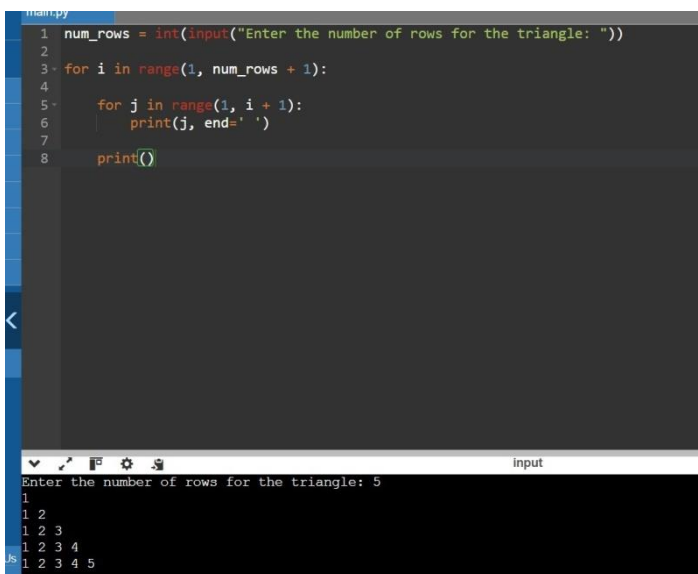
```
n=int(input("enter the number:"))
```

```
fact=1
```

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

```
    fact*=i
```

```
print("factorial:",fact)
```



The screenshot shows a Python IDE with a file named 'main.py'. The code in the editor is as follows:

```
1 num_rows = int(input("Enter the number of rows for the triangle: "))
2
3 for i in range(1, num_rows + 1):
4     for j in range(1, i + 1):
5         print(j, end=' ')
6     print()
```

The output window at the bottom shows the result of running the program with the input '5':

```
Enter the number of rows for the triangle: 5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

14) WRITE A PYTHON PROGRAM TO PRINT PATTERN? + + + + + + + +
+ + + + + + + +

SOLUTION:-

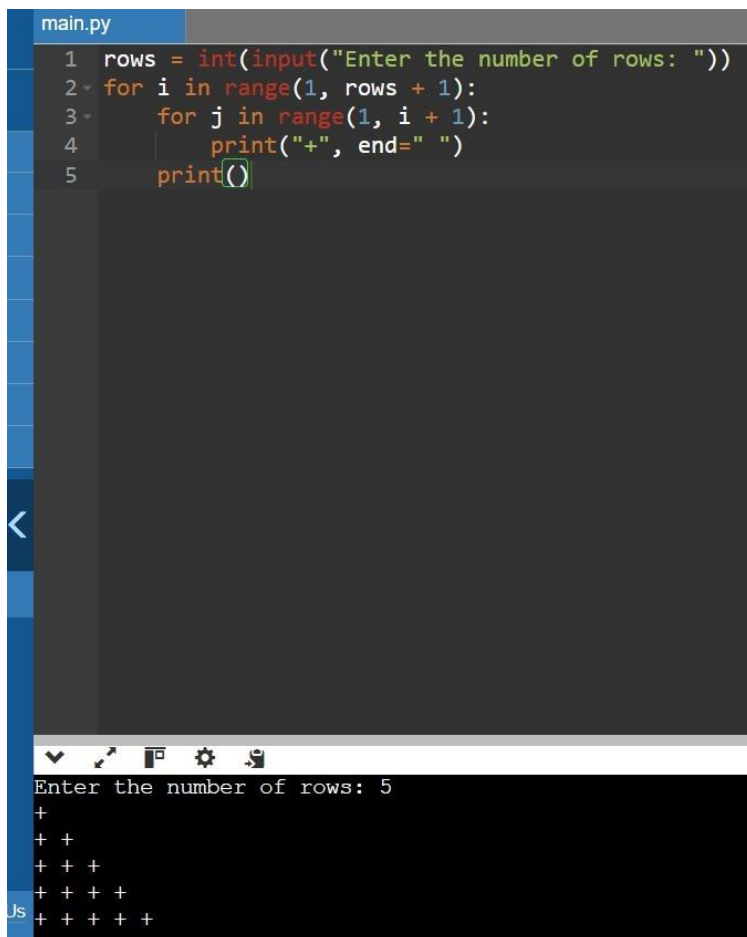
```
rows = int(input("Enter the number of rows: "))
```

```
for i in range(1, rows + 1):
```

```
    for j in range(1, i + 1):
```

```
        print("+", end=" ")
```

```
    print()
```



The screenshot shows a Python IDE with a file named 'main.py'. The code is as follows:

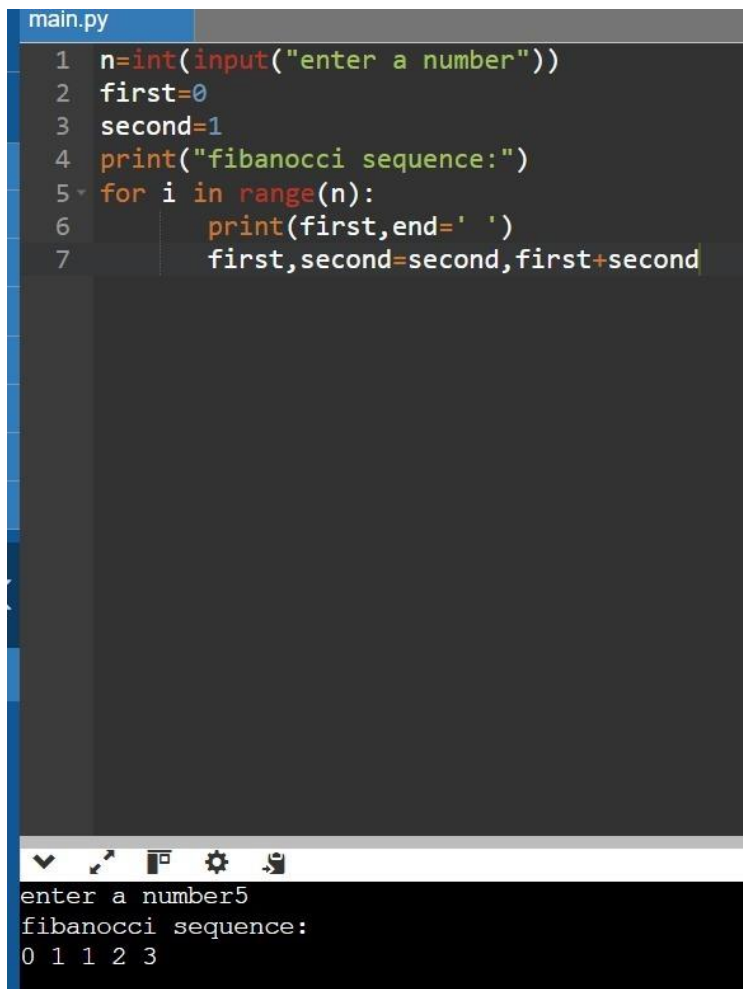
```
1 rows = int(input("Enter the number of rows: "))
2 for i in range(1, rows + 1):
3     for j in range(1, i + 1):
4         print("+", end=" ")
5     print()
```

The output of the program is displayed in the terminal window below the code editor. It shows the prompt 'Enter the number of rows: 5' followed by the pattern of plus signs:

```
Enter the number of rows: 5
+
+ +
+ + +
+ + + +
+ + + + +
```

15) WRITE A PYTHON PROGRAM TO PRINT FIBONACCI SERIES OF GIVEN NUMBER?

```
n=int(input("enter a number"))  
first=0  
second=1  
print("fibanocci sequence:")  
for i in range(n):  
    print(first,end=' ')  
    first,second=second,first+second
```



The screenshot shows a code editor window titled 'main.py' with the following Python code:

```
1 n=int(input("enter a number"))  
2 first=0  
3 second=1  
4 print("fibanocci sequence:")  
5 for i in range(n):  
6     print(first,end=' ')  
7     first,second=second,first+second
```

Below the code editor, the terminal output is displayed:

```
enter a number5  
fibanocci sequence:  
0 1 1 2 3
```


16. 16) WRITE A PYTHON PROGRAM TO EXECUTE ADDITION OF TWO MATRIX? SOLUTION:

```
a= [[1,2], [3,4]]
```

```
b= [[5,6], [7,8]]
```

```
res= [[0,0], [0,0]]
```

```
for i in range(len(a)):
```

```
    for j in range (len (a)):
```

```
        res[i][j] =a[i][j]+b[i][j]
```

```
print ("sum:", res)
```

```
Python 3.12.0 (tags/v3.12.0:0
Type "help", "copyright", "crec
.>>
===== RESTART
sum: [[6, 8], [10, 12]]
.>>
```

17. 17) WRITE A PYTHON PROGRAM TO EXECUTE MULTIPLICATION OF TWO MATRIX? SOLUTION:

```
a= [[1,2], [4,1]]
```

```
b= [[5,6], [7,8]]
```

```
res= [[0,0], [0,0]]
```

```
for i in range(len(a)):
```

```
    for j in range (len(b)):
```

```
        for k in range (len(res)):
```

```
            res[i][j]+=a[i][k]*b[k][j]
```

```
print ("product matrix:", res)
```

```
===== RESTART: C:/Users/likit/De  
product matrix: [[19, 22], [27, 32]]  
>
```

18) WRITE A PYTHON PROGRAM TO EXECUTE TRANSPOSE OF A MATRIX?

```
a= [[1,2], [3,4]]
```

```
res= [[0,0], [0,0]]
```

```
for i in range(len(a)):
```

```
    for j in range (len (res)):
```

```
        res[i][j] =a[j][i]
```

```
print ("Transpose matrix:", res)
```

```
>>> | ===== RESTART: C:/Users/|
    | Transpose matrix: [[1, 3], [2, 4]]
```

19) WRITE A PYTHON PROGRAM TO SUM OF DIAGONAL, ROW AND COLUMN? **

code:

```
a=[[1,2,3],[2,3,4],[3,4,5]]
```

```
rsum=0
```

```
csum=0
```

```
dsum=0
```

```
print(f"This is {len(a)}x{len(a)} matrix")
```

```
for i in range(len(a)):
```

```
    for j in range(len(a)):
```

```
        rsum+=a[i][j]
```

```
        print("the sum of",i,"th row is",rsum)
```

```
        rsum=0
```

```
for i in range(len(a)):
```

```
    for j in range(len(a)):
```

```
        csum+=a[j][i]
```

```
        print("the sum of",i,"th column is",csum)
```

```
        csum=0
```

```
for i in range(len(a)):
```

```
    for j in range(len(a)):
```

```
        if i==j:
```

```
            dsum+=a[i][j]
```

```
            print("the sum of diagonal: ",dsum)
```

= **RESTART: C:\Users\admin\Desktop\python\add_fu**

This is 3x3

the sum of 0 th row is 1

the sum of 0 th row is 2

the sum of 0 th row is 3

the sum of 1 th row is 2

the sum of 1 th row is 3

the sum of 1 th row is 4

the sum of 2 th row is 3

the sum of 2 th row is 4

the sum of 2 th row is 5

the sum of 0 th column is 1

the sum of 0 th column is 2

the sum of 0 th column is 3

the sum of 1 th column is 2

the sum of 1 th column is 3

the sum of 1 th column is 4

the sum of 2 th column is 3

the sum of 2 th column is 4

the sum of 2 th column is 5

the sum of diagonal: 1

the sum of diagonal: 4

the sum of diagonal: 9

>>> |

20) WRITE A PYTHON PROGRAM TO PERFORM LIST OPERATIONS?

```
a=[5,9,3,4,1,6]
```

```
print ("sort:",sorted(a) )
```

```
print("reverse:", a[::-1])
```

```
print("max:", max(a))
```

```
print("min:",min(a))
```

```
print("length:",len(a))
```

```
===== RES IAK
```

```
sort: [1, 3, 4, 5, 6, 9]
```

```
reverse: [6, 1, 4, 3, 9, 5]
```

```
max: 9
```

```
min: 1
```

```
length: 6
```

```
>> |
```

21) WRITE A PYTHON PROGRAM TO MERGE TWO LISTS?

SOLUTION:-

```
a=[1,2,3,4]
```

```
b=[9,7,8]
```

```
c=a+b
```

```
print(c)
```

```
[1, 2, 3, 4, 9, 7, 8]
```

```
PS C:\Users\Rahu1>
```

22)WRITE A PYTHON PROGRAM TO COUNT THE NUMBER
OF OCCURANCE OF AN ELEMENT?

```
a=[1,2,3,3,4,5,5]
```

```
n=int(input("Enter the value to count the occurance"))
```

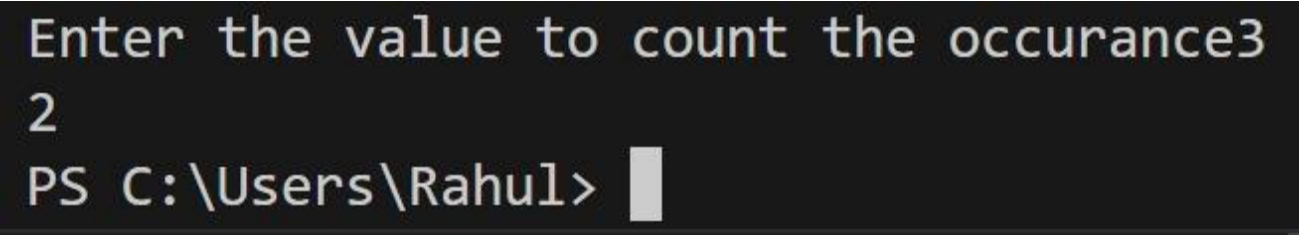
```
count=0
```

```
for i in a:
```

```
    if i==n:
```

```
        count=count+1
```

```
print(count)
```



```
Enter the value to count the occurance3
2
PS C:\Users\Rahul>
```


23) WRITE A PYTHON PROGRAM TO INSERT AN ELEMENT IN
A LIST?

```
a=[1,2,3,4]
```

```
a.append(9)
```

```
print(a,end=" ")
```

```
PS C:\Users\Rahul> & C:/Users/Rahul/AppData/Local/Programs/Python/Python312/python.exe c:/Users  
/Rahul/Desktop/Python/test/append.py  
[1, 2, 3, 4, 9]  
PS C:\Users\Rahul>
```

24) WRITE A PYTHON PROGRAM TO FIND INDEX OF AN ELEMENT IN A LIST?

```
a=[1,2,3,4,5,6]
```

```
n=int(input("enter an element to find its index value:"))
```

```
for i in range(len(a)):
```

```
    if n==a[i]:
```

```
        print(i)
```

```
enter an element to find its index value:3
2
PS C:\Users\Rahul>
```

25) WRITE A PYTHON PROGRAM TO FIND ODD AND EVEN
ELEMENTS OF A LIST?

```
a=[1,2,4,3]
even=[]
odd=[]
for i in a:
    if i%2==0:
        even.append(i)
    else:
        odd.append(i)
print("odd: ",odd)
print("even:",even)
```

```
s/Rahul/Desktop/Python/test/Even and odd in list.py"
odd number [1, 3, 5]
even number [2, 4, 6]
PS C:\Users\Rahul>
```

26) WRITE A PYTHON PROGRAM TO FIND DUPLICATE ELEMENTS IN A LIST

```
a=[1,2,2,3,4,5,5,6]
```

```
v=[]
```

```
for i in range(len(a)):
```

```
    for j in range(len(a)):
```

```
        if i!=j:
```

```
            if a[i]==a[j]:
```

```
                if a[i] in v:
```

```
                    break
```

```
    else:
```

```
        v.append(a[i])
```

```
print("duplicate elements are:",v)
```

```
===== RESTART: C:/US
```

```
duplicate elements are: [6]
```

27) WRITE A PYTHON PROGRAM FOR MULTIPLICATION TABLE?

$$1*5=5$$

$$2*5=10$$

$$3*5=15$$

$$4*5=20$$

SOLUTION:- `n=int(input("enter n: "))`

`for i in range(1,11):`

`print(i,"*",n,"=",n*i)`

=====

enter n: 3

$$1 * 3 = 3$$

$$2 * 3 = 6$$

$$3 * 3 = 9$$

$$4 * 3 = 12$$

$$5 * 3 = 15$$

$$6 * 3 = 18$$

$$7 * 3 = 21$$

$$8 * 3 = 24$$

$$9 * 3 = 27$$

28) WRITE A PYTHON PROGRAM TO CREATE A DICTONARY AND PRINT IT?

SOLUTION: -

```
person={"name":"jeethu","age":22,"gender":"male","city":"chennai"}
```

```
print(person)
```

```
>>> |===== RESTART: C:/Users/likit/
      |{'name': 'jeethu', 'age': 22, 'gender': 'male', 'city': 'chennai'}
>>> |
```

29) WRITE A PYTHON PROGRAM TO COUNT THE NO OF VOWELS AND CONSONENTS IN A STRING? SOLUTION:-

```
a=input("enter a string: ")
b="aeiouAEIOU"
vow=0
const=0
space=0
for i in a:
    if i in b:
        vow+=1
    elif i.isspace():
        space+=1
    else:
        const+=1
print("no of vowels:",vow)
print("no. of consonants:",const)
```

```
enter a string: saveetha
no of vowels: 4
no. of consonants: 4
```

30) WRITE A PYTHON PROGRAM TO PERFORM STRING OPERATIONS?

SOLUTION:-

```
#concatination
```

```
a="hello"
```

```
b="world"
```

```
c= a+b
```

```
print(c)
```

```
#reverse
```

```
c=c[::-1]
```

```
print(c)
```

```
#length
```

```
length=len(c)
```

```
print("length:",length)
```

```
#slice
```

```
d=c[::2]
```

```
print(d)
```

```
=====
```

```
helloworld
```

```
dlrowolleh
```

```
length: 10
```

```
drwle
```


31) WRITE A PYTHON PROGRAM TO CHECK IT IS A SUBSTRING OR NOT?

SOLUTION:-

```
a=input("enter string: ")
```

```
b=input("enter substring: ")
```

```
if b in a:
```

```
    print("yes it is a substring")
```

```
else:
```

```
    print("not a substring")
```

```
=====
```

```
enter string: saveetha
```

```
enter substring: university
```

```
not a substring
```

```
>> |
```

32) WRITE A PYTHON PROGRAM TO CONVERT UPPERCASE AND LOWERCASE OF A STRING?

SOLUTION:-

```
a=input("enter string:")
```

```
print("uppercase:",a.upper())
```

```
print("lowercase:",a.lower())
```

```
enter string:saveetha
uppercase: SAVEETHA
lowercase: saveetha
```

33) WRITE A PYTHON PROGRAM TO CHECK IT A PALINDROME OR NOT?

SOLUTION:-

```
a=input("enter string:")
```

```
b=a[::-1]
```

```
if a==b:
```

```
    print("palindrome")
```

```
else:
```

```
    print("not a palindrome")
```

```
=====
enter string:saveetha
not a palindrome
>
=====
enter string:mom
palindrome
>|
```

34) WRITE A PYTHON PROGRAM TO FIND NUMBER OF WORDS IN A STRING?

SOLUTION:

```
n=input("enter string: ")  
b=n.split()  
print(b)  
print("no of words:",len(b))
```

```
=====
enter string: hello i m saveetha college
['hello', 'i', 'm', 'saveetha', 'college']
no of words: 5
```

35) WRITE A PYTHON PROGRAM TO CHECK PERFECT NUMBER OR NOT?

SOLUTION:-

```
n = int(input("Enter any Number: "))
```

```
Sum = 0
```

```
for i in range(1, n):
```

```
    if(n% i == 0):
```

```
        Sum = Sum + i
```

```
if (Sum == n):
```

```
    print("Perfect Number")
```

```
else:
```

```
    print(" not a Perfect Number" )
```

```
>> =====:
Enter any Number: 28
Perfect Number

>> =====:
Enter any Number: 145
not a Perfect Number
```

36) WRITE A PYTHON PROGRAM TO CHECK AMSTRONG NUMBER OR NOT?

SOLUTION:-

```
n=int(input("enter n: "))  
a=[int(i) for i in str(n)]  
sum=0  
for i in a:  
    sum+=i**3  
if sum==n:  
    print("amstrong number")  
else:  
    print("not a amstrong number")
```

```
=====:  
enter n: 371  
amstrong number  
>  
=====:  
enter n: 125  
not a amstrong number  
.
```

37) WRITE A PYTHON PROGRAM TO CHECK TECH NUMBER OR NOT?

SOLUTION:-

```
n = 3025
```

```
m = str(n)
```

```
a = m[:len(m)//2]
```

```
b = m[len(m)//2:]
```

```
c = int(a)+int(b)
```

```
d = c**2
```

```
if(d==n):
```

```
    print("Tech number")
```

```
else:
```

```
    print("Not a Tech number")
```

```
=====
Tech number
|
```

38) WRITE A PYTHON PROGRAM TO CHECK PRIME NUMBER OR NOT?

SOLUTION:

```
n=int(input("enter n:"))
```

```
flag=0
```

```
for i in range(2,n):
```

```
    if n%i==0:
```

```
        print("non prime")
```

```
        break
```

```
else:
```

```
    print("prime")
```

```
>>> enter n:9
      non prime
>>>
=====
>>> enter n:7
      prime
```


39) WRITE A PYTHON PROGRAM TO CHECK COMPOSITE NUMBER OR NOT?

SOLUTION:

```
n=int(input("enter n:"))
```

```
flag=0
```

```
for i in range(2,n):
```

```
    if n%i==0:
```

```
        print("composite")
```

```
        break
```

```
else:
```

```
    print("non composite")
```

```
=====
enter n:5
non composite
>>>
=====
enter n:8
composite
>>>

```

40) WRITE A PYTHON PROGRAM TO CHECK HARSHAD NUMBER OR NOT?

SOLUTION:-

```
num=int(input("Enter the number:"))
```

```
Sum=0
```

```
temp=num
```

```
while temp>0:
```

```
    digit=temp%10
```

```
    Sum+=digit
```

```
    temp=temp//10
```

```
if num%Sum==0:
```

```
    print("Harshad Number")
```

```
else:
```

```
    print("Not a Harshad Number")
```

```
=====
Enter the number:37
Not a Harshad Number
>
=====
Enter the number:157
Not a Harshad Number
>
=====
Enter the number:156
Harshad Number
.
```

41) WRITE A PYTHON PROGRAM TO FIND LSB AND MSB?

SOLUTION:-

```
n=int(input("enter a binary number:"))
```

```
b=str(n)
```

```
print("LSB:",b[-1])
```

```
print("MSB:",b[0])
```

```
=====
enter a binary number:0011
LSB: 1
MSB: 1
```

42) WRITE A PYTHON PROGRAM TO FIND MEAN,MEDIAN AND MODE?

SOLUTION:

```
import statistics
```

```
a=[1,2,3,4,5,5]
```

```
mean=statistics.mean(a)
```

```
print(mean)
```

```
median=statistics.median(a)
```

```
print(median)
```

```
mode=statistics.mode(a)
```

```
print(mode)
```

```
=====
```

```
3.3333333333333335
```

```
3.5
```

```
5
```

43) WRITE A PYTHON PROGRAM TO FIND LCM AND GCD?

SOLUTION:

```
import math

a=int(input("Enter the a value"))

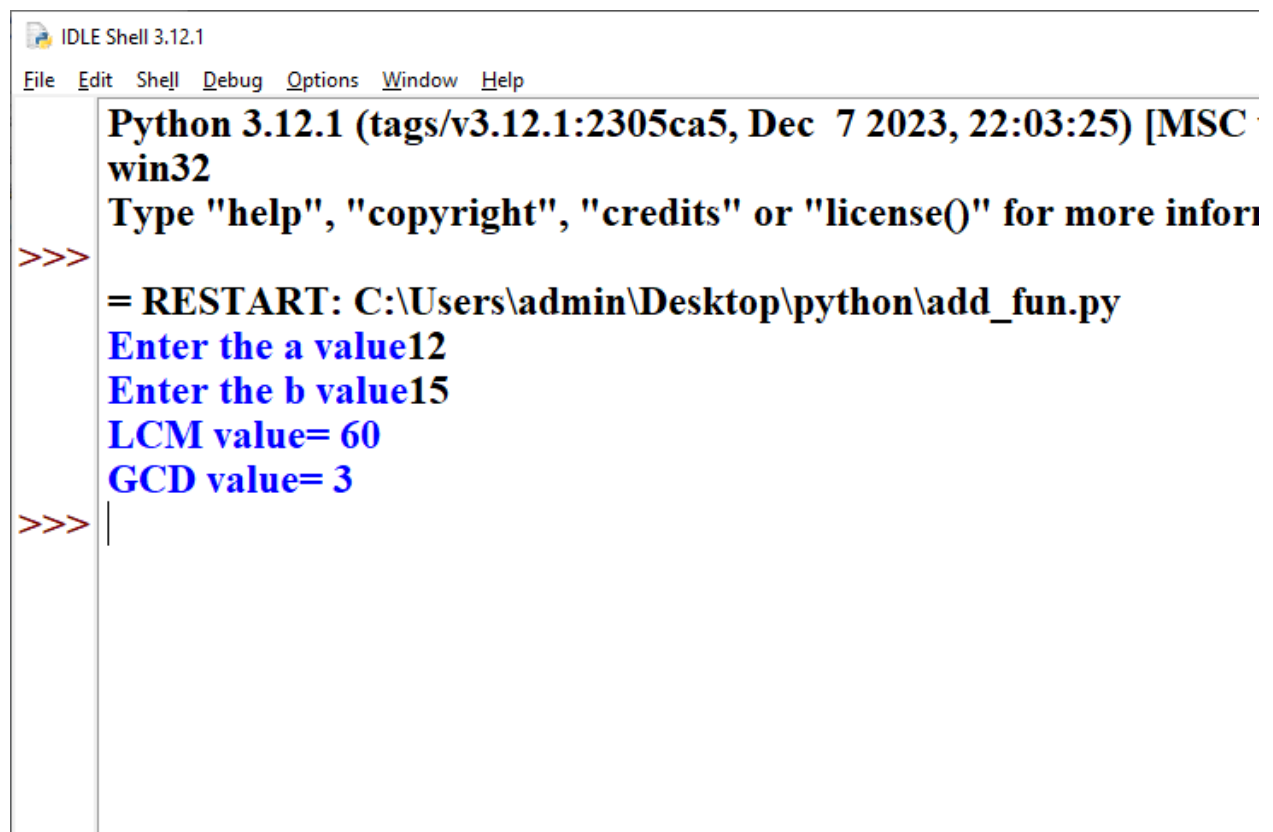
b=int(input("Enter the b value"))

c=math.lcm(a,b)

d=math.gcd(a,b)

print("LCM value=",c)

print("GCD value=",d)
```

A screenshot of the IDLE Shell 3.12.1 window. The title bar reads "IDLE Shell 3.12.1". The menu bar includes "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area shows the output of a Python program. It starts with "Python 3.12.1 (tags/v3.12.1:2305ca5, Dec 7 2023, 22:03:25) [MSC win32]" and "Type 'help', 'copyright', 'credits' or 'license()' for more information". Below this, it says ">>> = RESTART: C:\Users\admin\Desktop\python\add_fun.py". Then, it shows the input and output: "Enter the a value12", "Enter the b value15", "LCM value= 60", and "GCD value= 3". The prompt ">>>" is followed by a vertical line, indicating the program has finished execution.

```
IDLE Shell 3.12.1
File Edit Shell Debug Options Window Help
Python 3.12.1 (tags/v3.12.1:2305ca5, Dec 7 2023, 22:03:25) [MSC
win32
Type "help", "copyright", "credits" or "license()" for more infor
>>>
= RESTART: C:\Users\admin\Desktop\python\add_fun.py
Enter the a value12
Enter the b value15
LCM value= 60
GCD value= 3
>>> |
```

