1)Number series

A.Write a program to find the sum of series 1+3+5+7..+N

PROGRAM:

n=int(input("enter the range of number:"))

sum=0

i=1

while(i<=n):

sum+=i

i+=2

print("the sum of the series=",sum)

OUTPUT:

enter the range of number:5

the sum of the series= 9

B.Write a program to find the sum of series 1+2+3..+N.

PROGRAM:

n=int(input("enter the range of number:"))

sum=0

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

sum+=i

print("the sum of the series=",sum)

OUTPUT:

enter the range of number:6

the sum of the series= 21

II. Number Pyramid - Alternate numbers pattern using while loop

PROGRAM:

numberarrows=5

f=1

while(f<=numberarrows):

g=1

while g<=f:

print((f\*2-1),end="")

g=g+1

f=f+1

print()

OUTPUT:

1

33

555

7777

99999

III. Pyramid Pattern - Equilateral triangle pattern of star

PROGRAM:

rows=5

for i in range(0,rows):

for j in range(0,i+1):

print("\*",end='')

print("\r")

OUTPUT:

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

IV. Print all the prime numbers from 1 -50

PROGRAM:

lower = 1

upper = 50

print("Prime numbers between",lower,"and", upper,"are:")

for num in range(lower, upper + 1):

# all prime numbers are greater than 1

if num>1:

for i in range(2, num):

if (num % i) == 0:

break

else:

print(num)

OUTPUT:

Prime numbers between 1 and 50 are:

2

3

5

7

11

13

17

19

23

29

31

37

41

43

47