#Sum of the Series

n=int(input('Enter number of terms : '))

i=2

j=0

sum=0

while(j<n):

sum+=i

i+=2

j+=1

print('The sum is',sum)

output:

Enter number of terms : 10

The sum is 110

# sum of series 1+11+111+1111+....+N

n=int(input('Enter number of terms : '))

i=1

j=1

sum=1

while(i<n):

j=j\*10+1

sum+=j

i+=1

print(sum)

output:

Enter number of terms : 6

123456

#II. Number Patterns - Inverted pyramid pattern of numbers

n=int(input('Enter a number : '))

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

print(str(i)\*n)

n-=1

output:

Enter a number : 5

11111

2222

333

44

5

#III. Pyramid Pattern - Downward full Pyramid Pattern of star

n=int(input('Enter number of rows : '))

a='\*'

s=0

for i in range(n,0,-1):

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

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

print(a,end=' ')

s+=1

print()

output:

Enter number of rows : 5

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

#Amstrong Number

num = int(input("Enter a number:"))

sum = 0

temp = num

while(temp>0):

rem = temp % 10

sum+=(rem\*\*3)

temp //= 10

if(num==sum):

print("Amstrong Number")

else:

print("Not Amstrong Number")

output:

Enter a number:153

Amstrong Number