**Program to compute sum of series 1 + 1/2 + 1/3 + 1/4 + .. + 1/n**

n=int(input("enter the value of n"))

s=0

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

s=s+1/i

print(s)

**Program to compute sum of series 1/1! + 1/2! + 1/3! + 1/4! + .. + 1/n!**

import math

n=int(input("enter the value of n"))

s=0

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

s=s+1/math.factorial(i)

print(s)

or

import math

n=int(input("enter the value of n"))

s=0

fact=1

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

fact\*=i

s=s+1/fact

print(s)

**Program to compute sum of series 1/1! + 2/2! + 3/3! + 4/4! + .. + n/n!**

import math

n=int(input("enter the value of n"))

s=0

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

s=s+i/math.factorial(i)

print(s)

or

import math

n=int(input("enter the value of n"))

s=0

fact=1

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

fact\*=i

s=s+i/fact

print(s)

**Program to compute the Sum of the series 1^2 + 2^2 + …. + n^2 = n(n + 1)(2n + 1) / 6**

number=int(input("Enter the value of n"))

sum=0

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

sum = (number \* (number + 1) \* (2 \* number + 1 )) / 6

print(sum)

**Program to compute the Sum of the series 13 + 23+ 33 + … + n3 = (n (n+1)/2)2**

n=int(input("Enter the value of n"))

sum=0

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

sum = pow(((n \* (n + 1) ) / 2),2)

print(sum)

**Program to find the sum of the series x+x^2/2+x^3/3+…..+x^n/n**

import math

n=int(input("enter the value of n"))

x= int(input("enter the value of x"))

s=0

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

s=s+math.pow(x,i)

print(s)

**Program to find the sum of the series -1 +1/x -1/x^2 +1/x^3+……**

x=int(input("Enter the value of x"))

sum=0.0

t=x

j=1.0

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

sum = sum+j/t

j = -j

t = t\*x

print(sum)

**Program to find the sum of the sine series** http://2.bp.blogspot.com/-4FD4B0fSpB0/TxGe6K1rtwI/AAAAAAAAAEo/_D-ZbkbBcDc/s1600/f268a9caacc396c2c76657d99b719373.png

import math

x=float(input("enter the value of x"))

n=int(input("enter the value of n"))

x = x \* math.pi/ 180 ;

t = x ;

sum = x ;

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

t = (t \* pow((-1), (2 \* i - 1)) \* x \* x) / (2 \* i \* (2 \* i + 1))

sum = sum + t

print(sum)

**Program to find the sum of the cosine series**

http://3.bp.blogspot.com/-xGbqDZyYmwE/TxGdKf741vI/AAAAAAAAAEg/8MmoBqqO_Uo/s1600/f268a9caacc396c2c76657d99b719373.png

import math

x=float(input("enter the value of x"))

n=int(input("enter the value of n"))

x = x \* math.pi/ 180 ;

t = 1 ;

sum = 1 ;

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

t = t \* pow( (-1), (2 \* i - 1)) \* x \* x / (2 \* i \* (2 \* i - 1))

sum = sum + t

print(sum)

**Program to find the sum of the exponential series**

http://3.bp.blogspot.com/-n71ATpnWHhs/TxGhvXZEpZI/AAAAAAAAAEw/vvk8vL8gIqo/s1600/f268a9caacc396c2c76657d99b719373.png

x=int(input("Enter the value of x"))

n=int(input("Enter the value of n"))

sum=1

t=1

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

exp = i

t = t \* x / exp

sum = sum + t ;

print(sum)

**Write a program to find the sum of the series: 1/12+1/22+1/32+……….**

n=int(input("Enter the value of n"))

sum=0

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

sum = sum + 1/(10\*i+2)

print(sum)

**Assignments**

Write a Program to Print sum of series 1+x+x2+x3+......+xn

Write a program to find the sum of the series: 1 + 12 + 123 + 1234 + ..... + n terms.