Department of Humanities and Applied Science

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Class / Branch: F.E ALL	Date of Performance: 6/03/2024
Subject: C Programming	Date of Submission: 6/03/2024

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Experiment No.13

Aim: Write a program to calculate the sum and product of of series

x=1+1/2!+1/3!+...+1/n! And x=1*1/2!*1/3!*...*1/n! by using for loop

PROGRAM:-

```c
#include<stdio.h>
int main ()
{
int no,fact=1,i;
double sum=0.0,product=1.0;
printf("Enter number:- ");
scanf("%d",&no);
for (i=1;i<=no;i++)
{
    fact*=i;
    sum+=1.0/fact;
    product*=1.0/fact;

}
printf("sum of series=%.2lf",sum);
printf("\nproduct of series=%.2lf\n",product);
return 0;
}
```

OUTPUT:-

```
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop/G475/EXp13$ gcc EXp13.c
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop/G475/EXp13$ ./a.out
Enter number:- 5
sum of series=1.72
product of series=0.00
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop/G475/EXp13$ 
```