Q1. A superclass Number is defined to calculate the factorial of a number. Define a subclass Series to find the sum of the series S = 1! + 2! + 3! + 4! + ………. + n! [5]  
The details of the members of both classes are given below:  
Class name: Number  
Data member/instance variable:  
n: to store an integer number  
Member functions/methods:  
Number(int nn): parameterized constructor to initialize the data member n=nn  
int factorial(int a): returns the factorial of a number  
(factorial of n = 1 × 2 × 3 × …… × n)  
void display()  
Class name: Series  
Data member/instance variable:  
sum: to store the sum of the series  
Member functions/methods:  
Series(…) : parameterized constructor to initialize the data members of both the classes  
void calsum(): calculates the sum of the given series  
void display(): displays the data members of both the classes  
Assume that the superclass Number has been defined. Using the concept of inheritance, specify the class Series giving the details of the constructor(…), void calsum() and void display().  
The superclass, main function and algorithm need NOT be written.