**Requirements: "1. Write programs to find the sum of the given series:**

**(a) 1 + (1/2!) + (1/3!) + (1/4!) + .......... + (1/n!)**

**import java.util.Scanner;**

**public class seriesassignment2 {**

**public static void main(String[] args) {**

**Scanner sc=new Scanner(System.*in*);**

**int n=sc.nextInt();**

**double num=1.0,sum=0.0;**

**for(int i=1;i<=n;i++)**

**{**

**for(int j=1;j<=i;j++)**

**{**

**num\*=j;**

**}**

**sum+=1/num;**

**num=1.0;**

**} System.*out*.println(sum);**

**}**

**}**

**Output:**

**4**

**1.7083333333333335**

**b)1 + (1+2) + (1+2+3) + .......... + (1+2+3+ ...... + n)**

**import java.util.Scanner;**

**public class seriesassignment1 {**

**public static void main(String[] args) {**

**Scanner sc=new Scanner(System.*in*);**

**int n=sc.nextInt();**

**int num=1;**

**for(int i=2;i<=n;i++)**

**{**

**for(int j=1;j<=i;j++)**

**{**

**num+=j;**

**}**

**} System.*out*.println(num);**

**}**

**}**

**output:**

**6**

**56**

**2) Write a program to print the binary number pattern.**

**Enter the number of rows: 5**

**10101**

**01010**

**10101**

**01010**

**10101**

**public class pattern01 {**

**public static void main(String[] args) {**

**int n=5;**

**for(int i=0;i<n;i++)**

**{**

**for(int j=0;j<n;j++) {**

**if((i+j)%2==0){**

**System.*out*.print("1");}**

**else{**

**System.*out*.print("0");**

**}**

**}System.*out*.println(" ");**

**}**

**}**

**}**

**output:**

**10101**

**01010**

**10101**

**01010**

**10101**