

CHRIST SCHOOL  
ICSE

COMPUTER  
ASSIGNMENT

*Blue J:Java*

**Submitted to,**  
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Computer Teacher .

**Submitted by,**  
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## ASSIGNMENT 1

### Question:

Write a menu driven program to find the sum of the following series depending on the user choosing 1 or 2

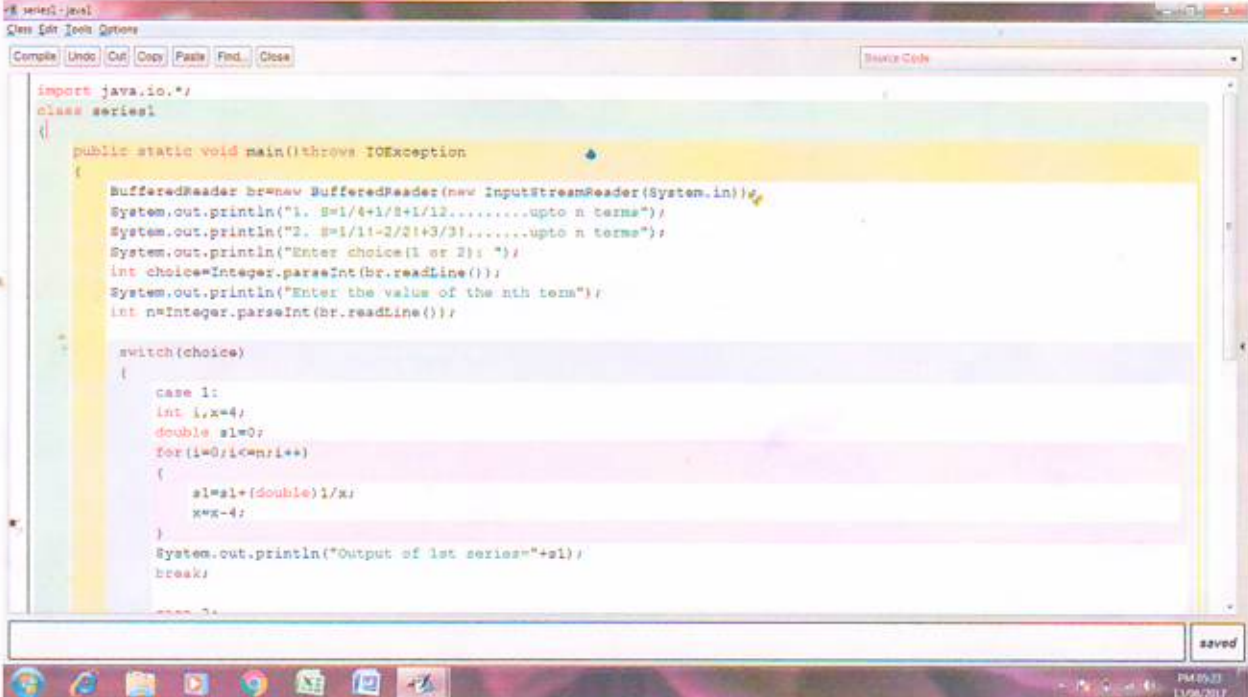
1.  $S=1/4+1/8+1/12.....$ upto n terms

2.  $S=1/1!-2/2!+3/3!.....$ upto n terms

where ! stands for factorial of the number and the factorial value of a number is the product of all integers from 1 to that number, e.g.  $5! = 1 \ 2 \ 3 \ 4 \ 5$ .

(use switch-case).

### Code:



```
import java.io.*;
class series1
{
    public static void main(throws IOException
    {
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        System.out.println("1. S=1/4+1/8+1/12.....upto n terms");
        System.out.println("2. S=1/1!-2/2!+3/3!.....upto n terms");
        System.out.println("Enter choice(1 or 2): ");
        int choice=Integer.parseInt(br.readLine());
        System.out.println("Enter the value of the nth term");
        int n=Integer.parseInt(br.readLine());

        switch(choice)
        {
            case 1:
                int i,x=4;
                double s1=0;
                for(i=0;i<n;i++)
                {
                    s1=s1+(double)1/x;
                    x=x-4;
                }
                System.out.println("Output of 1st series="+s1);
                break;
            case 2:
                int i=1;
                double s2=0;
                for(i=0;i<n;i++)
                {
                    s2=s2+(double)i/i;
                    i=i+1;
                }
                System.out.println("Output of 2nd series="+s2);
                break;
        }
    }
}
```

```
PS series1.java2
Class Edit Tools Options
Compile Undo Cut Copy Paste Fms... Close Source Code

for(i=0;i<=n;i++)
{
    a1=a1+(double)1/i;
    x=x-1;
}
System.out.println("Output of 1st series="+a1);
break;

case 2:
int j,k,z;
double a2=0;
for(j=1;j<=n;j++)
{
    f=1;
    for(k=2;k<=j;k++)
    f=f*j;
    a2=a2+(double)1/f;
}
System.out.println("Output of 2nd series="+a2);
break;

default:
System.out.println("Wrong choice.Enter 1or2");
}
```

saved

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### Output:

```
PS Dual.java2
Project Edit Tools View Help
New Class...
student.txt
series1.txt
Compile

PS Shell Terminal Window - java1
Options:
1. S=1/4+1/8+1/12.....upto n terms
2. S=1/1-2/2+3/3).....upto n terms
Enter choice(1 or 2):
2
Enter the value of the nth term
5
Output of 2nd series=1.6283361111111111
```

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