S.No: 6	Exp. Name: ***Implement the C program which computes the sum of the first n terms of the series***	Date:2023-04-01

Aim:

Implement the C program which computes the sum of the first n terms of the series

Sum = 1 - 3 + 5 - 7 + 9 + ...

Sample Input and Output - 1:

```
Enter the value of n: 99
The sum of first 99 terms of the series is: 99
```

Source Code:

sum.c

```
#include<stdio.h>
void main()
{
   int n,i,sum=0,sump=0,sumn=0;
   printf("Enter the value of n: ");
   scanf("%d",&n);
   for(i=0;i<n;i++)
   {
      if(i%2==0)
      {
         sump+=2*i+1;
      }
      else{
         sumn+=-(2*i+1);
      }
   }
   sum=sump+sumn;
   printf("The sum of first %d terms of the series is: %d\n",n,sum);
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the value of n: 789
The sum of first 789 terms of the series is: 789

Test Case - 2
User Output
Enter the value of n: 76
The sum of first 76 terms of the series is: -76

Test Case - 3

User Output
Enter the value of n: 99
The sum of first 99 terms of the series is: 99