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

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

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