

S.No: 6	Exp. Name: <i>Implement the C program which computes the sum of the first n terms of the series</i>	Date:2023-04-01
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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,sumn=0,sump=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