

Learn how your code will be evaluated (https://helpcenter.mymapit.in/?ht_kb=things-to-know-before-attempting-the-test)Utility codes for quick start (https://helpcenter.mymapit.in/?page_id=871)

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Sum of series

Anil is wondering if he can find out the sum of series using loops in C. Help him write a C program to get the following sum of series up to 4 decimal places if 'N' is being provided.

$$1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{N}$$

Sample Input 1

2

Sample Output 1

0.5000

Sample Input 2:

4

Sample Output 2

0.5833

Input Explanation:

The first line contains the positive integer 'N', where N is the number of terms in the given series

C (gcc 4.8.3) ▼



▶ Compile & Run

O/P »

```

1  #include<stdio.h>
2
3  int main(){
4
5      // input
6      int n;
7      scanf("%d",&n);
8
9      // algo
10     float sum = 0;
11     int denominator = 1;
12     int sign = 1; // +1 means positive -1 means -ve
13
14     while(n != 0){
15
16         sum += (sign)*((float)1/(float)denominator); // formula
17
18         // updation
19         denominator++; // increment deno
20         sign *= -1; // reverse sign
21         n--;
22
23     }
24
25     printf("%.4f",sum); // to set decimal limit to 4
26
27 }
```

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