

Aim:

Write a C program to evaluate $1 + 1/2 + 1/3 + \dots + 1/n$.

At the time of execution, the program should print the message on the console as:

Enter n value :

For example, if the user gives the **input** as:

Enter n value : 2

then the program should **print** the result as:

Result : 1.500000

Source Code:

SumOfSeries10.c

```
#include<stdio.h>
void main()
{
    int n,i=1;
    float sum=0;
    printf("Enter n value : ");
    scanf("%d",&n);
    while(i<=n)
    {
        sum=sum+(float)1/i;
        i++;
    }
    printf("Result : %f\n",sum);
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter n value : 2
Result : 1.500000
Test Case - 2
User Output
Enter n value : 10
Result : 2.928968
Test Case - 3

User Output
Enter n value : 25
Result : 3.815958

Test Case - 4
User Output
Enter n value : 30
Result : 3.994987

Test Case - 5
User Output
Enter n value : 99
Result : 5.177378

Test Case - 6
User Output
Enter n value : 999
Result : 7.484478

Test Case - 7
User Output
Enter n value : 1
Result : 1.000000

Test Case - 8
User Output
Enter n value : 5
Result : 2.283334