Dashbo... / My cour... / CS23331-DAA-2023-... / Finding Time Complexity of Algorit... / Problem 1: Finding Complexity using Counter Me...

Started on	Tuesday, 13 August 2024, 2:19 PM
State	Finished
Completed on	Tuesday, 13 August 2024, 2:23 PM
Time taken	3 mins 42 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Convert the following algorithm into a program and find its time complexity using the counter method.
```
void function (int n)
{
    int i= 1;
```

```
    int s =1;
```

```
    while(s <= n)
    {
        i++;
        s += i;
    }
}
```
Note: No need of counter increment for declarations and scanf() and count variable printf() statements.

Input:
 A positive Integer n
Output:
Print the value of the counter variable

For example:

Input	Result
9	12

Answer: (penalty regime: 0 %)

```
1   #include<stdio.h>
2   void function (int n)
3   {
4       int c=0;
5       int i= 1; c++;
6       int s =1;c++;
7
8       while(s <= n)
9       {
10          c++;
11           i++;c++;
12           s += i;c++;
13        } c++;
14        printf("%d",c);
15
16  }
17  int main(){
18      int n;
19      scanf("%d",&n);
20      function(n);
21      return 0;}
```

	Input	Expected	Got	
✔	9	12	12	✔
✔	4	9	9	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ BASIC C PROGRAMMING-PRACTICE

Jump to...

Problem 2: Finding Complexity using Counter method ►