

CHANDRU G S 2024-CSE ▾**C2****Started on** Monday, 18 August 2025, 11:28 AM**State** Finished**Completed on** Monday, 18 August 2025, 11:39 AM**Time taken** 11 mins 13 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 );
3 int main(){
4     int n;
5     scanf("%d",&n);
6     function(n);
7
8 }
9 void function (int n)
10 {
11     int c=0;
12     int i= 1;c++;
13     int s =1;c++;
14
15     while(s <= n)
16     {
17         i++;c++;
18         s += i;c++;
19         c++;
20     } c++;
21     printf("%d",c);
22 }
```

	Input	Expected	Got	
✓	9	12	12	✓
✓	4	9	9	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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