

SRIRAM S (12/08/2006) 2024-IT**S2****Started on** Thursday, 21 August 2025, 10:28 AM**State** Finished**Completed on** Thursday, 21 August 2025, 10:43 AM**Time taken** 15 mins 25 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 int main(){
3     int n;
4     int count=0;
5     scanf("%d",&n);
6     int i=1;
7     count++;
8     int s=1;
9     count++;
10    while(s<=n){
11        count++;
12        i++;
13        count++;
14        s+=i;
15        count++;
16    }
17
18    count++;
19    printf("%d\n",count);
20
21 }
```

	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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