

**Started on** Monday, 4 August 2025, 3:11 PM

**State** Finished

**Completed on** Monday, 4 August 2025, 3:38 PM

**Time taken** 27 mins 3 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 %)

Reset answer

```

1 #include<stdio.h>
2
3 void function (int n)
4 {
5     int c=0;
6     int i= 1;
7     c++;
8     int s =1;
9     c++;
10    while(s <= n)
11    {
12        c++;
13        i++;
14        c++;
15        s += i;
16        c++;
17    }
18    c++;
19    printf("%d",c);
20 }
21 int main(){
22     int n;
23     scanf("%d",&n);
24     function(n);
25 }
```

|   | Input | Expected | Got |   |
|---|-------|----------|-----|---|
| ✓ | 9     | 12       | 12  | ✓ |
| ✓ | 4     | 9        | 9   | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.