



**Started on** Monday, 18 August 2025, 8:55 AM

**State** Finished

**Completed on** Monday, 18 August 2025, 9:00 AM

**Time taken** 4 mins 2 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 func(int n){
3      int count=0;
4      int i=1;
5      count++;
6      int s=1;
7      count++;
8      while(s<=n){
9          count++;
10         i++;
11         count++;
12         s+=i;
13         count++;
14     }
15     count++;
16     printf("%d",count);
17 }
18 int main(){
19     int n;
20     scanf("%d",&n);
21     func(n);
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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