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|---|---|
| **Started on** | Monday, 4 August 2025, 3:22 PM |
| **State** | Finished |
| **Completed on** | Monday, 4 August 2025, 3:43 PM |
| **Time taken** | 20 mins 31 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

```
#include<stdio.h>
int function(int n)
{
    int counter=0;
    int i=1,s=1;
    counter++;
    while(s <=n)
    {
        counter++;
        i++;
        counter++;
        s+=i;
        counter++;
    }
    counter++;
    counter++;
    return counter;

}
int main()
{
    int n;
    scanf("%d",&n);
    int ans = function(n);
    printf("%d",ans);
}
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.