

Started on Monday, 4 August 2025, 3:12 PM

State Finished

Completed on Monday, 4 August 2025, 3:40 PM

Time taken 27 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 %)

Reset answer

```

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

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.