



DEVISHREE J 2024-CSE ▾

**D2****Started on** Wednesday, 20 August 2025, 8:24 AM**State** Finished**Completed on** Wednesday, 20 August 2025, 8:40 AM**Time taken** 16 mins 1 sec**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,count=0;
4      int s=1;count++;
5      int i=1;count++;
6      scanf("%d",&n);
7      while(s<=n){
8          count++;
9          i++;
10         count++;
11         s+=i;
12         count++;
13     }
14     count++;
15     printf("%d",count);
16 }
```

	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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