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**Started on** Wednesday, 13 August 2025, 10:13 AM

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**State** Finished

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**Completed on** Wednesday, 13 August 2025, 10:17 AM

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**Time taken** 3 mins 58 secs

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**Marks** 1.00/1.00

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**Grade** **10.00** out of 10.00 (**100%**)

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### 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 c=0;
3
4  void function (int n)
5  {
6      int i= 1;
7      c++;
8      int s =1;
9      c++;
10     while(s <= n)
11     {
12         c++;
13         i++;
14         c++;
15
16         s += i;
17         c++;
18     }
19 }
20 int main(){
21     int n;
22     scanf("%d",&n);
23     c=0;
24     function(n);
25     printf("%d\n",c+1);
26     return 0;
27 }

```

	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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