Problem 1: Finding Complexity using Counter Method

Started on	Friday, 10 October 2025, 2:02 PM
State	Finished
Completed on	Friday, 10 October 2025, 2:13 PM
Time taken	11 mins 10 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 1.00 out of 1.00 Remove flag

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 %)

```c
#include <stdio.h>

int main(void) {
    long long n, cnt = 0;
    if (scanf("%lld", &n) != 1) {
        return 0;
    }
    long long i = 1, s = 1;
    cnt += 2;
    while ((cnt++, s <= n)) {
        i++;
        cnt++;
        s += i;
        cnt++;
    }
    printf("%lld", cnt);
    return 0;
}
```

	Input	Expected	Got	
✔	9	12	12	✔
✔	4	9	9	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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