Problem 1: Finding Complexity using Counter Method

Started on	Wednesday, 6 August 2025, 8:09 AM
State	Finished
Completed on	Wednesday, 6 August 2025, 8:39 AM
Time taken	30 mins
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 Correct Mark 1.00 out of 1.00 Flag question

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 function (int n)
{   int count = 0;
    int i= 1;
    count++;
    int s =1;
    count++;
    count++;
    while(s <= n)
    {
        i++;
        count++;
        s += i;
        count+=2;
    }


    return count;

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

    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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