

CS23331-Design and Analysis of Algorithms-2023 Batch-CSE

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Started on	Friday, 9 August 2024, 1:36 PM
State	Finished
Completed on	Friday, 9 August 2024, 1:41 PM
Time taken	5 mins 14 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1
Correct
Mark 1.00 out of 1.00
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Convert the following algorithm into a program and find its time complexity using the counter method.

```
void func(int n)
{
    if(n==1)
    {
        printf("");
    }
    else
    {
        for(int i=1; i<=n; i++)
        {
            for(int j=1; j<=n; j++)
            {
                printf("");
                printf("");
                break;
            }
        }
    }
}
```

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

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2 void func(int n)
3 {
4     int c=0;
5     if(n==1)
6     {
7         c++;
8         printf("");
9         c++;
10    }
11    else
12    {
13        for(int i=1; i<=n; i++)
14        {
15            c++;
16            for(int j=1; j<=n; j++)
17            {
18                c++;
19                //printf("");
20                c++;
21                //printf("");
22                c++;
23                break;
24            }
25            c++;
26        }
27        c++;
28    }
29    printf("%d", ++c);
30 }
31 int main()
32 {
33     int n;
34     scanf("%d", &n);
35     func(n);
36 }
```

	Input	Expected	Got	
✓	2	12	12	✓
✓	1000	5002	5002	✓
✓	143	717	717	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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