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Started on	Friday, 9 August 2024, 2:34 PM
State	Finished
Completed on	Friday, 9 August 2024, 2:37 PM
Time taken	2 mins 52 secs
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 counter method.

```
void function(int n)
{
    int c= 0;
    for(int i=n/2; i<n; i++)
        for(int j=1; j<n; j = 2 * j)
            for(int k=1; k<n; k = k * 2)
                c++;
}
```

**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:**

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

	Input	Expected	Got	
✓	4	30	30	✓

	Input	Expected	Got	
✓	10	212	212	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ Problem 3: Finding Complexity using Counter Method](#)

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[Problem 5: Finding Complexity using counter method ▶](#)