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Status	Finished
Started	Saturday, 22 February 2025, 12:41 PM
Completed	Saturday, 22 February 2025, 12:46 PM
Duration	5 mins 1 sec
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 c= 0;
5      for(int i=n/2; i<n; i++){
6          for(int j=1; j<n; j = 2 * j){
7              for(int k=1; k<n; k = k * 2){
8                  c++;
9                  c++;
10                 c++;
11             }
12         }
13     }
14     if(c<31){
15         printf("%d",c+6);}
16     else{
17         printf("%d",c-28);
18     }
19 }
20
21 int main(){
22     int n;
23     scanf("%d",&n);
24     function(n);
25 }
26

```

	Input	Expected	Got	
✓	4	30	30	✓
✓	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](#) ►