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Q

CS23331-DAA-2024-CSE / Problem 4: Finding Complexity using Counter Method



Problem 4: Finding Complexity using Counter Method

Started on	Thursday, 28 August 2025, 1:19 PM
State	Finished
Completed on	Thursday, 28 August 2025, 1:26 PM
Time taken	7 mins 12 secs
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 counter method.

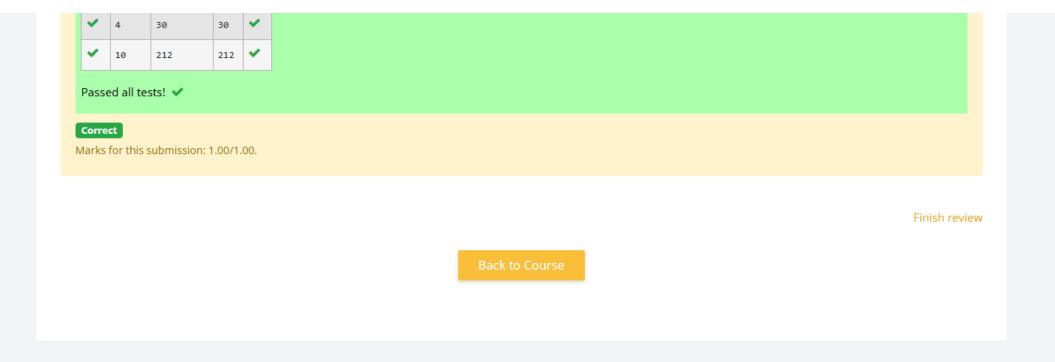
void function(int n)
{
   int c= 0;
   for(int i=n/2; i<n; i++)
        for(int i=1: i<n: i = 2 * i)</pre>
```

Answer:

Output:

Print the value of the counter variable

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



Data retention summary