RAJALAKSHMI ENGINEERING COLLEGE

NEIL DANIEL A 2024-CSE

N2

Started on	Sunday, 17 August 2025, 7:48 PM
State	Finished
Completed on	Sunday, 17 August 2025, 7:54 PM
Time taken	6 mins 9 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:

```c
#include <stdio.h>
void function(int n)
{
    int c= 0;
    for(int i=n/2; i<n; i++){
        c++;
        c++;
        for(int j=1; j<n; j = 2 * j){
            c++;
            c++;
            for(int k=1; k<n; k = k * 2){
                c++;
                c++;
            }
        }
    }
    c++;
    c++;
    printf("%d",c);
}
int main(){
    int n;
    scanf("%d",&n);
    function(n);
}
```

	Input	Expected	Got	
✔	4	30	30	✔
✔	10	212	212	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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