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:

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

    printf("%d",c);
}
```

	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 ►