



DEVISHREE J 2024-CSE ▾

**D2****Started on** Wednesday, 20 August 2025, 9:07 AM**State** Finished**Completed on** Wednesday, 20 August 2025, 9:31 AM**Time taken** 23 mins 11 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;count++;
6      for(int i=n/2; i<n; i++){
7          count++;
8          for(int j=1; j<n; j = 2 * j){
9              count++;
10             for(int k=1; k<n; k = k * 2){
11                 count++;
12                 c++;count++;
13             } count++;
14         } count++;
15     } count++;
16     printf("%d",count);
17 }
18 int main(){
19     int n;
20     scanf("%d",&n);
21     function(n);
22 }
```

	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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