

## 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; c++;
5      for(int i=n/2; i<n; i++){c++;
6          for(int j=1; j<n; j = 2 * j){c++;
7              for(int k=1; k<n; k = k * 2){c++;
8                  c++; }
9                  c++;}
10                 c++;}
11                 c++;
12                 printf("%d",c);
13             }
14         }
15     int main()
16     {
17         int n;
18         scanf("%d",&n);
19         function(n);
20     }

```

	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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