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Started on	Friday, 9 August 2024, 2:37 PM
State	Finished
Completed on	Friday, 9 August 2024, 2:40 PM
Time taken	3 mins 20 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 reverse(int n)
{
    int rev = 0, remainder;
    while (n != 0)
    {
        remainder = n % 10;
        rev = rev * 10 + remainder;
        n/= 10;
    }
    print(rev);
}
```

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 reverse(int n)
3  {
4      int c=0;
5      int rev = 0, remainder;
6      c++;
7      c++;
8      while (n != 0)
9      {
10         c++;
11         remainder = n % 10;
12         c++;
13         rev = rev * 10 + remainder;
14         c++;
15         n/= 10;
16         c++;
17     }
18     c++;
19     printf("%d",c);
20 }
21
22 int main()
23 {
24     int n;
25     scanf("%d",&n);
26     reverse(n);
27 }
```

	Input	Expected	Got	
✓	12	11	11	✓
✓	1234	19	19	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ Problem 4: Finding Complexity using Counter Method

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1-G-Coin Problem ▶