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Started on	Thursday, 8 August 2024, 11:35 AM
State	Finished
Completed on	Thursday, 8 August 2024, 11:37 AM
Time taken	2 mins 10 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
3  void reverse(int n)
4  {
5      int count=0;
6      int rev = 0, remainder;
7      count++;                //assignment
8      while (n != 0)
9      {
10         count++;            //while condition true
11         remainder = n % 10;
12         rev = rev * 10 + remainder;
13         n/= 10;
14         count+=3;           //while body
15     }
16     count++;                //while body false
17     //printf("%d",rev);
18     printf("%d",++count);    //printf
19 }
20
21 int main(){
22     int n;
23     scanf("%d",&n);
24     reverse(n);
25 }
```

	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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