

SRIRAM S (12/08/2006) 2024-IT**S2****Started on** Tuesday, 19 August 2025, 8:41 AM**State** Finished**Completed on** Thursday, 21 August 2025, 10:39 AM**Time taken** 2 days 1 hour**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     int rev=0,remainder;
4     int count=1;
5     while(n!=0){
6         count++;
7         remainder=n%10;
8         count++;
9         rev=rev*10+remainder;
10        count++;
11        n/=10;
12        count++;
13    }
14    count++;
15    count++;
16    printf("%d\n",count);
17 }
18 int main(){
19     int n;
20     scanf("%d",&n);
21     reverse(n);
22     return 0;
23 }
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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