

# PROBLEM 5

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

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

Passed all tests! ✓