Problem 5: Finding Complexity using counter method

Question:

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:

```c
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);

    int count = 2; // counter variable
    int rev = 0, remainder;

    while (n != 0) {
        count++; // while condition check

        remainder = n % 10;
        count++; // remainder assignment

        rev = rev * 10 + remainder;
        count++; // rev assignment

        n /= 10;
        count++; // n division and assignment
    }
    count++; // final failed while condition check

    printf("%d\n", count);
    return 0;
}

```

	Input	Expected	Got	
✔	12	11	11	✔
✔	1234	19	19	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.