

CS23331-DAA-2024-CSE / Problem 5: Finding Complexity using counter method



Problem 5: Finding Complexity using counter method

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|--------------|--------------------------------------|
| Started on | Tuesday, 30 September 2025, 12:42 PM |
| State | Finished |
| Completed on | Tuesday, 30 September 2025, 12:56 PM |
| Time taken | 13 mins 45 secs |
| Marks | 1.00/1.00 |
| Grade | 10.00 out of 10.00 (100%) |

Question 1 | Correct Mark 1.00 out of 1.00 [Flag 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:

```
1 #include <stdio.h>
2 int main(){
3     int count=0;
4     int rev = 0, remainder,n;
5     count++;
6     scanf("%d",&n);
7     count++;
8     while (n != 0)
9     {
10        count++;
11        remainder = n % 10;
12        count++;
13        rev = rev * 10 + remainder;
14        count++;
15        n/= 10;
16        count++;
17    }
18    count++;
19    printf("%d",count);
20 }
```

| | 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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