

FINDING TIME COMPLEXITY OF ALGORITHMS

PROBLEM 5:

Finding Complexity using Counter Method

AIM:

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);
}
```

CODE:

```
#include<stdio.h>

int main(){
    int count=0;

    int n;

    scanf("%d",&n);

    int rev = 0, remainder;

    count++;
```

```
while (n != 0)
{
    count++;
    remainder = n % 10;
    count++;
    rev = rev * 10 + remainder;
    count++;
    n /= 10;
    count++;

}
count++;
//printf("%d",rev);
count++;
printf("%d",count);
}
```

INPUT:

12 1234

OUTPUT:

11 19