

FINDING TIME COMPLEXITY OF ALGORITHMS

PROBLEM 1:

Finding Complexity using Counter Method

AIM:

Covertng a given algorithm into a program and finding its time complexity using the counter method.

```
void function (int n)
{
    int i= 1;
    int s =1;
    while(s <= n)
    {
        i++;
        s += i;
    }
}
```

CODE:

```
#include <stdio.h>

int main(){

    int n;

    scanf("%d",&n);

    int counter = 0;

    int i = 1;

    counter++;

    int s = 1;

    counter++;

    while (s <= n) {
```

```
    counter++;  
    i++;  
    counter++;  
    s += i;  
    counter++;  
}  
counter++;  
printf("%d",counter);  
return 0;  
}
```

INPUT:

9

OUTPUT:

12