**FINDING TIME COMPLEXITY OF ALGORITHMS**

PROBLEM 1:

Finding Complexity using Counter Method

AIM:

Coverting 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