**FINDING TIME COMPLEXITY OF ALGORITHMS**

PROBLEM 2:

Finding complexity using counter method

AIM:

Convert the following algorithm into a program and find its time complexity using the counter method.

void func(int n)

{

if(n==1)

{

printf("\*");

}

else

{

for(int i=1; i<=n; i++)

{

for(int j=1; j<=n; j++)

{

printf("\*");

printf("\*");

break;

}

}

}

}

CODE:

#include<stdio.h>

int main()

{ int counter=0;

int n;

scanf("%d",&n);

if(n==1)

{counter++;

}

else

{

counter++;

for(int i=1; i<=n; i++)

{

counter++;

for(int j=1; j<=n; j++)

{

counter++;

counter++;

counter++;

break;

}counter++;

}counter++;

}

printf("%d",counter);

}

INPUT:

2 1000 143

OUTPUT:

12 5002 717