

Write a recursive program to

a. Solve Towers-of-Hanoi problem

Program:

```
#include<stdio.h>
void toh(int n,char src,char dest,char temp){
if(n==1){
printf("move disk 1 from  %c to %c \n",src,dest);
}
else {
toh(n-1,src,temp,dest);
printf("move disk %d from %c to %c\n",n,src,dest);
toh(n-1,src,dest,temp);
}
}

void main(){
int n;
printf("enter the value of n\n");
scanf("%d",&n);
toh(n,'S','D','T');
}
```

Output screenshot:

b. To find GCD

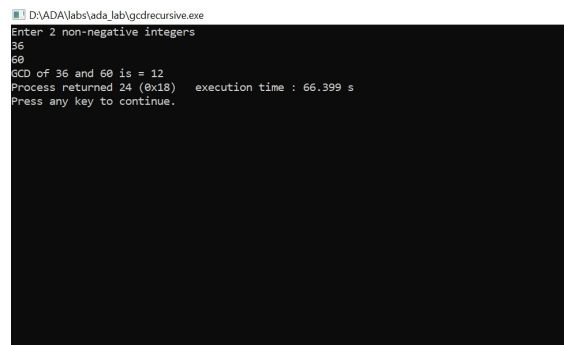
Program

```
#include<stdio.h>

int gcd(int m,int n){
if(n==0)
return m;
else
return gcd(n,m%n);
}

void main(){
int m,n;
printf("Enter 2 non-negative integers\n");
scanf("%d %d",&m,&n);
printf("GCD of %d and %d is = %d",m,n,gcd(m,n));
}
```

OUTPUT SCREENSHOT:



```
D:\ADA\labs\ada_lab\gcdrecursive.exe
Enter 2 non-negative integers
36
60
GCD of 36 and 60 is = 12
Process returned 24 (0x18)   execution time : 66.399 s
Press any key to continue.
```