

toh.c X fib.c X gcd.c X recursive\_linear\_search.c X recursive\_binary\_search.c X \*bubble\_sort.c X selection\_sort.c X

```
1  #include<stdio.h>
2  #include<conio.h>
3  void towers(int n,char src,char temp,char dest)
4  {
5      if(n==1)
6      {
7          printf("move disk 1 from %c to %c \n",src,dest);
8          return;
9      }
10     towers(n-1,src,dest,temp);
11     printf("move disk %d from %c to %c \n",n,src,dest);
12     towers(n-1,temp,src,dest);
13 }
14 main()
15 {
16     int n;
17     printf("enter the number of disks:\n");
18     scanf("%d",&n);
19     towers(n,'s','t','d');
20 }
21
```

enter the number of disks:

3  
move disk 1 from s to d  
move disk 2 from s to t  
move disk 1 from d to t  
move disk 3 from s to d  
move disk 1 from t to s  
move disk 2 from t to d  
move disk 1 from s to d

Process returned 0 (0x0) execution time : 2.285 s

Press any key to continue.

toh.c X \*fib.c X gcd.c X recursive\_linear\_search.c X recursive\_binary\_search.c X \*bubble\_sort.c X selection\_sort.c X

```
1  #include<stdio.h>
2  int fib(int n)
3  {
4      if(n==0)
5          return 0;
6      if(n==1)
7          return 1;
8      return fib(n-1)+fib(n-2);
9  }
10 void main()
11 {
12     int i,n;
13     printf("enter value of n:\n");
14     scanf("%d",&n);
15     printf("%d fib numbers are:\n",n);
16     for(i=0;i<n;i++)
17         printf("fib(%d)=%d \n",i,fib(i));
18 }
19
```

enter value of n:

5  
5 fib numbers are:

fib(0)=0

fib(1)=1

fib(2)=1

fib(3)=2

fib(4)=3

Process returned 5 (0x5)    execution time : 2.238 s

Press any key to continue.



```
1  #include<stdio.h>
2  int gcd(int m,int n)
3  {
4      if(n==0)
5          return m;
6      if(m<n)
7          return gcd(m,n);
8      return gcd(n,m%n);
9  }
10 void main()
11 {
12     int m,n,res;
13     printf("enter the values of m and n:\n");
14     scanf("%d %d",&m,&n);
15     res=gcd(m,n);
16     printf("gcd(%d,%d)=%d \n",m,n,res);
17 }
18
```

enter the values of m and n:

10

5

gcd(10,5)=5

Process returned 13 (0xD)    execution time : 3.485 s

Press any key to continue.