

1)  
2) solve Towers-of-Hanoi

```
#include <stdio.h>
void towers (int, char, char, char);
int void main ()
{
    int num;
    printf ("Enter the number of disks : ");
    scanf ("%d", &num);
    printf ("The sequence of moves involved in the  
Towers of Hanoi are: \n");
    towers (num, 'A', 'C', 'B');
    return 0;
}
```

```
void towers (int num, char frompeg, char topeg,
             char auxpeg)
{
    if (num == 1)
    {
        printf ("\n move disk 1 from peg %c to peg  
peg %c", from, topeg);
        return;
    }
    towers (num - 1, frompeg, auxpeg, topeg);
}
```

```
printf("Move disk %d from peg %c to peg %c",
    num, frompeg, topeg);
towers (num-1, auxpeg, topeg, frompeg);
}
```

⑥ GCD

```
#include <stdio.h>
int gcd (int, int);
int gcd
```

```
{ int main()
```

```
{
    int n1, n2, num;
```

```
    printf("Enter two positive integers: ");
```

```
    scanf("%d %d", &n1, &n2);
```

```
    printf("G.C.D of %d and %d is %d.", n1, n2,
        gcd (n1, n2));
```

```
    return 0;
```

```
    system("pause");
```

```
}
```

```
int gcd (int n1, int n2)
```

```
{
```

```
    if (n2 != 0)
```

```
        return gcd (n2, n1 % n2);
```

```
    else
```

```
        return n1;
```

```
}
```

→ modification of obtained GCD.

int lcm (int n1, int n2)

temp = n1 \* n2

temp = temp / gcd (n1, n2);

return temp;

y