



The screenshot shows the OnlineGDB website interface. On the left is a sidebar with navigation links like 'My Projects', 'Classrooms', and 'Learn Programming'. The main area contains a C code editor with the following code:

```
1 #include <stdio.h>
2
3 int GCD(int m,int n)
4 {
5     if(n==0)
6         return m;
7     else
8         return GCD(n,m%n);
9 }
10
11 int main()
12 {
13     int m,n,g=1;
14     printf("Enter two integers to find GCD:\n");
15     scanf("%d%d",&m,&n);
16     g=GCD(m,n);
17     printf("GCD of %d, %d is: %d",m,n,g);
18     return 0;
19 }
```

Below the code editor is an input/output console. It shows the prompt 'Enter two integers to find GCD:', followed by the input '12 34', and the output 'GCD of 12, 34 is: 2'. The console also indicates that the program finished with exit code 0.

code for gcd:

```
#include <stdio.h>
```

```
int GCD(int m,int n)
```

```
{ if(n==0)
```

```
    return m;
```

```
    else
```

```
        return GCD(n,m%n);
```

```
}
```

```
int main()
```

```
{ int m,n,g=1;
```

```
    printf("Enter two integers to find GCD:\n");
```

```
    scanf("%d%d",&m,&n);
```

```
    g=GCD(m,n);
```

```
    printf("GCD of %d, %d is: %d",m,n,g);
```

```
    return 0;
```

```
}
```

The image displays two screenshots of the OnlineGDB IDE, which is a web-based environment for writing, compiling, and debugging C code. The interface includes a sidebar with navigation links, a central code editor, and a bottom console for input and output.

**Top Screenshot:** Shows the C code for the Tower of Hanoi problem. The code defines a recursive function `towers` and a `main` function that prompts the user for the number of disks and then calls `towers` with three pegs (A, C, B). The code is as follows:

```
#include <stdio.h>

void towers(int, char, char, char);

int main()
{
    int num;

    printf("Enter the number of disks : ");
    scanf("%d", &num);
    printf("The sequence of moves involved in the Tower 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 %c", frompeg, topeg);
        return;
    }
    towers(num - 1, frompeg, auxpeg, topeg);
    printf("\n Move disk %d from peg %c to peg %c", num, frompeg, topeg);
    towers(num - 1, auxpeg, topeg, frompeg);
}
```

The console output shows the sequence of moves for 3 disks:

```
Move disk 1 from peg A to peg C
Move disk 2 from peg A to peg B
Move disk 1 from peg C to peg B
Move disk 3 from peg A to peg C
Move disk 1 from peg B to peg A
Move disk 2 from peg B to peg C
Move disk 1 from peg A to peg C
...Program finished with exit code 0
Press ENTER to exit console.
```

**Bottom Screenshot:** Shows the same code after execution. The console output now includes the sequence of moves for 5 disks:

```
Enter the number of disks : 5
The sequence of moves involved in the Tower of Hanoi are :

Move disk 1 from peg A to peg C
Move disk 2 from peg A to peg B
Move disk 1 from peg C to peg B
Move disk 3 from peg A to peg C
Move disk 1 from peg B to peg A
Move disk 2 from peg B to peg C
Move disk 1 from peg A to peg C
Move disk 4 from peg A to peg B
Move disk 1 from peg C to peg B
Move disk 2 from peg C to peg A
Move disk 1 from peg B to peg A
Move disk 3 from peg C to peg B
Move disk 1 from peg A to peg C
Move disk 2 from peg B to peg A
Move disk 1 from peg C to peg B
Move disk 5 from peg A to peg C
Move disk 1 from peg B to peg A
Move disk 2 from peg B to peg C
Move disk 1 from peg A to peg C
Move disk 3 from peg B to peg A
Move disk 1 from peg C to peg B
Move disk 2 from peg C to peg A
Move disk 1 from peg B to peg A
Move disk 4 from peg B to peg C
Move disk 1 from peg A to peg C
Move disk 2 from peg A to peg B
Move disk 1 from peg C to peg B
Move disk 3 from peg A to peg C
Move disk 1 from peg B to peg A
Move disk 2 from peg B to peg C
Move disk 1 from peg A to peg C
...Program finished with exit code 0
Press ENTER to exit console.
```

## Code for tower of Hanoi:

```
#include <stdio.h>
```

```
void towers(int, char, char, char);
```

```
int main()
```

```
{
```

```
    int num;
```

```
printf("Enter the number of disks : ");

scanf("%d", &num);

printf("The sequence of moves involved in the Tower 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 %c", frompeg, topeg);
        return;
    }
    towers(num - 1, frompeg, auxpeg, topeg);
    printf("\n Move disk %d from peg %c to peg %c", num, frompeg, topeg);
    towers(num - 1, auxpeg, topeg, frompeg);
}
```