

Tower of Hanoi Problem using Recursion

```
#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);

}

```

OUTPUT :

```

Enter the number of disks : 3
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

```