

# Towers of Hanoi

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#include <stdio.h>
#include <stdlib.h>

#define MAX 10

void printMove(int n, int start, int end)
{
    printf("move disk %d from rod %d to rod %d\n", n, start, end);
}

int hanoi(int n, int start, int end, int other)
{
    int moves = 0;
    if (n == 1)
    {
        printMove(n, start, end);
        return 1;
    }
    moves += hanoi(n - 1, start, other, end);
    printMove(n, start, end);
    moves++;
    moves += hanoi(n - 1, other, end, start);
    return moves;
}

int main()
{
    int n;
    printf("Enter number of disks: ");
    scanf("%d", &n);
    int start = 1;
    int end = 3;
    int aux = 2;
    int m = hanoi(n, start, end, aux);
    printf("Total moves: %d\n", m);
    return 0;
}
```