

```

/*****
Online C Compiler.
Code, Compile, Run and Debug C program online.
Write your code in this editor and press "Run" button to compile and execute it.
*****/

```

```

#include <stdio.h>
#include <time.h>

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);
}

int main()
{
    int num;
    clock_t start, end;
    double time_taken;

    printf("Enter the number of disks : ");
    scanf("%d", &num);
    printf("The sequence of moves involved in the Tower of Hanoi are :\n");

    start = clock();
    towers(num, 'A', 'C', 'B');
    end = clock();
    time_taken = ((double)(end-start))/CLOCKS_PER_SEC;
}

```

input

ENTER to exit console.

```

7 *****
8
9 #include <stdio.h>
10 #include <time.h>
11
12 void towers(int num, char frompeg, char topeg, char auxpeg)
13 {
14     if (num == 1)
15     {
16         printf("\n Move disk 1 from peg %c to peg %c", frompeg, topeg);
17         return;
18     }
19     towers(num - 1, frompeg, auxpeg, topeg);
20     printf("\n Move disk %d from peg %c to peg %c", num, frompeg, topeg);
21     towers(num - 1, auxpeg, topeg, frompeg);
22 }
23
24
25 int main()
26 {
27     int num;
28     clock_t start,end;
29     double time_taken;
30
31     printf("Enter the number of disks : ");
32     scanf("%d", &num);
33     printf("The sequence of moves involved in the Tower of Hanoi are :\n");
34
35     start = clock();
36     towers(num, 'A', 'C', 'B');
37     end = clock();
38     time_taken = ((double)(end-start))/CLOCKS_PER_SEC;
39
40     printf("\n\nTime taken: %f s",time_taken);
41
42     return 0;
43 }

```

input

Press ENTER to exit console.



Enter the number of disks : 2

The sequence of moves involved in the Tower of Hanoi are :

Move disk 1 from peg A to peg B

Move disk 2 from peg A to peg C

Move disk 1 from peg B to peg C

Time taken: 0.000023 s

...Program finished with exit code 0

Press ENTER to exit console.