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\* C program for Tower of Hanoi using Recursion

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#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');

system("pause");

}

void towers(int num, char A, char C, char B)

{

printf("\n %d,%c,%c,%c\n",num,A,C,B);

if (num == 1)

{

printf("\n 1. Move disk 1 from %c to %c", A, C);

return;

}

towers(num - 1, A, B, C);

printf("\n 2. Move disk %d from %c to %c", num, A, C);

towers(num - 1, B, C, A);

}

**Output:**

Enter the number of disks : 3

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

3,A,C,B

2,A,B,C

1,A,C,B

1. Move disk 1 from A to C

2. Move disk 2 from A to B

1,C,B,A

1. Move disk 1 from C to B

2. Move disk 3 from A to C

2,B,C,A

1,B,A,C

1. Move disk 1 from B to A

2. Move disk 2 from B to C

1,A,C,B

1. Move disk 1 from A to C

Press any key to continue . . .