**/\*Write a recursive program to solve Tower of Hanoi. \*/**

**#include<iostream>**

**#include <cmath>**

**using namespace std;**

**void TowerOfHanoi(int num,char A,char B,char C)**

**{**

**if(num>0)**

**{**

**TowerOfHanoi(num-1, A, C, B);**

**cout<<"Move a disk "<<num<<" from "<<" "<<A<<" to"<<" "<<C<<endl;**

**TowerOfHanoi( num-1, B, A, C);**

**}**

**}**

**int main()**

**{**

**int numOfDisk;**

**cout<<"Enter the no. of disks: ";**

**cin>>numOfDisk;**

**cout<<endl;**

**cout<<"Number of steps = "<<pow(2,numOfDisk)-1;**

**cout<<endl<<endl;**

**TowerOfHanoi(numOfDisk,'A','B','C');**

**cout<<endl;**

**}**

**/\*Write a recursive program to solve Tower of Hanoi\*/**

**#include<bits/stdc++.h>**

**using namespace std;**

**void tower(int n,string s,string a, string d)**

**{**

**if(n==1)**

**{**

**cout<<s<<" to "<<d<<endl;**

**return;**

**}**

**tower(n-1,s,d,a);**

**cout<<s<<" to "<<d<<endl;**

**tower(n-1,a,s,d);**

**}**

**int main()**

**{**

**int n;**

**cout<<"enter no. of disks ";**

**cin>>n;**

**tower(n,"source","auxillary","destination");**

**}**

**/\*Write a recursive program to solve Tower of Hanoi. \*/**

**#include <iostream>**

**using namespace std;**

**void towerOfHanoi(int n, char from\_rod, char to\_rod, char aux\_rod)**

**{**

**if (n == 1)**

**{**

**cout << "Move disk 1 from rod " << from\_rod <<" to rod " << to\_rod<<endl;**

**return;**

**}**

**towerOfHanoi(n - 1, from\_rod, aux\_rod, to\_rod);**

**cout << "Move disk " << n << " from rod " << from\_rod << " to rod " << to\_rod << endl;**

**towerOfHanoi(n - 1, aux\_rod, to\_rod, from\_rod);**

**}**

**int main()**

**{**

**int n;**

**cout<<"Enter the num of discs"<<endl;**

**cin>>n; // Number of disks**

**towerOfHanoi(n, 'A', 'C', 'B'); // A, C and B are rods a->source c->destination b->aux**

**return 0;**

**}**

**/\*Write a recursive program to solve Tower of Hanoi. \*/**

**#include <iostream>**

**using namespace std;**

**void Hanoi(int n, char from, char to, char aux)**

**{**

**if (n == 1)**

**{**

**cout << "Move Disk 1 from " << from << " to " << to <<endl;**

**return;**

**}**

**Hanoi(n - 1, from, aux, to);**

**cout << "Move Disk " << n << " from " << from << " to " << to << endl;**

**Hanoi(n - 1, aux, to, from);**

**}**

**int main()**

**{**

**int no\_of\_discs;**

**cout << "Enter number of discs : ";**

**cin >> no\_of\_discs;**

**cout << endl;**

**Hanoi(no\_of\_discs, 'A','C', 'B');**

**}**