```
/*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');
}
```