import java.util.\*;

public class MyClass {

int finishedstate=(1<<8)-1; #n=8

public static void main(String args[])

{

int size=8; #noof nodes

Scanner sc=new Scanner(System.in);

int startindex=sc.nextInt(System.in);

double[][] memo=new [8][1<<8];

int[][] prev=new [8][1<<8];

int state=1<<startindex

int mincost=tsp(startindex,state,memo,prev);

int tempindex=startindex;

List<Integer> result=new ArrayList<>();

while(true)

{

result.add(tempindex);

int nextindex=prev[i][state];

int nextstate=state | (1<<nextindex);

state=nextstate;

tempindex=nextindex;

}

result.add(startindex);

}

public tsp(int i,int state,double[][] memo,int[][] prev)

{

if(state==finishedsate)

{

return memo[i][state];

}

if(memo[i][state]!=null)

{

return memo[i][state];

}

int index=-1;

int cost=Integer.MAX\_VALUE;

for(int next=0;next<8 ;next++)

{

if(state & (1<<next)!=0)

{

continue;

}

int nextstate=state | (1<<next);

double newcost=memo[i][state]+tsp(next,nextstate,memo,prev);

if(newcost<cost)

{

cost=newcost;

index=next;

}

}

prev[i][state]=index;

return memo[i][state]=cost;

}

}