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// recursive eight queens
#include <iostream>
#include <cmath>
using namespace std;

bool ok(int * q, int i)
{
	for (int k=0; k <i; k++)
		if((q[k]==q[i]) || (abs(q[k]-q[i])==i-k))
			return false; //conflict, go back and try next row
	return true; //this one's ok, return and move on to next column
}

void print(int * q)
{	static int count =0;
   cout<<++count<<endl;

	for (int k=0; k<8; k++)
		cout<< q[k];cout<<endl;

}

void move(int* q, int i) // try place in col i
{
	if(i==8)
	{
		print(q);
		return;
	}

	for(int j=0;j<8;j++)  // j is the row value
	{	q[i]=j;
		if(ok(q,i)) // try and place a queen in row j of col i,if yes
			move(q,i+1); // go to next column otherwise try next j
	}

	// no value of j worked so return;
};



int main()
{
	int q[8];
	move(q,0);
	system("pause");
}
```