public class SudokuChecker{

static int[][] sMatrix={

{5,3,4,6,7,8,9,1,2},

{6,7,2,1,9,5,3,4,8},

{1,9,8,3,4,2,5,6,7},

{8,5,9,7,6,1,4,2,3},

{4,2,6,8,5,3,7,9,1},

{7,1,3,9,2,4,8,5,6},

{9,6,1,5,3,7,2,8,4},

{2,8,7,4,1,9,6,3,5},

{3,4,5,2,8,6,1,7,9}

};

static int rSum=0;

static int cSum=0;

static int[] rSumArray=new int[9];

static int[] cSumArray=new int[9];

static int[] boxSumArray=new int[9];

static boolean checkArrayStatus(int[] rSumArray,int[] cSumArray,int[] boxSumArray)

{

int i=0;

boolean sudukoStatus=true;

while(i<9){

if(rSumArray[i]!=45&&cSumArray[i]!=45&&rSumArray[i]!=45)

{

sudukoStatus=false;

break;

}

i++;

}

return sudukoStatus;

}

public static void main(String[] args) {

for(int i=0 ; i<sMatrix.length ; i++){

for(int j=0 ; j<sMatrix.length ; j++){

rSum+=sMatrix[i][j];

cSum+=sMatrix[j][i];

}

rSumArray[i]=rSum;

cSumArray[i]=cSum;

rSum=0;

cSum=0;

}

for(int i=0 ; i< sMatrix.length ; i++){

for(int j=0 ; j<sMatrix.length ; j++){

if(i<=2&&j<=2)

{

boxSumArray[0]+=sMatrix[i][j];

}

if(i<=2&&(j>=3&&j<=5))

{

boxSumArray[1]+=sMatrix[i][j];

}

if(i<=2&&(j>=6&&j<=8))

{

boxSumArray[2]+=sMatrix[i][j];

}

if((i>=3&&i<=5)&&(j<=2))

{

boxSumArray[3]+=sMatrix[i][j];

}

if((i>=3&&i<=5)&&(j>=3&&j<=5))

{

boxSumArray[4]+=sMatrix[i][j];

}

if((i>=3&&i<=5)&&(j>=6&&j<=8))

{

boxSumArray[5]+=sMatrix[i][j];

}

if((i>=6)&&(j<=2))

{

boxSumArray[6]+=sMatrix[i][j];

}

if((i>=6)&&(j>=3&&j<=5))

{

boxSumArray[7]+=sMatrix[i][j];

}

if((i>=6)&&(j>=6))

{

boxSumArray[8]+=sMatrix[i][j];

}

}

}

if(checkArrayStatus(rSumArray,cSumArray,boxSumArray))

{

System.out.println("The matrix is sudoku compliant");

}

else

{

System.out.println("The matrix is not sudoku compliant");

}

}

}