```
public class SudokuChecker
{
   public static void main(String[] args)
   {
      int[][] array = {
                        {4,3,1,6,7,9,5,2,8},
                        {9,6,7,2,5,8,3,4,1},
                        {5,8,2,1,4,3,9,6,7},
                        {6,5,9,8,1,7,2,3,4},
                        {3,2,8,5,6,4,1,7,9},
                        {7,1,4,9,3,2,8,5,6},
                        {8,7,3,4,2,1,6,9,5},
                        {1,4,5,3,9,6,7,8,2},
                        {2,9,6,7,8,5,4,1,3}
                      };

      System.out.println(checkForSolution(array));
   }

   public static boolean checkForSolution(int[][]array)
   {
      //check rows
      for(int r=0;r<array.length;r++)
      {
         for(int c=0;c<array[r].length;c++)
         {
            for(int i=0;i<9;i++)
            {
               if(c != i && array[r][c] == array[r][i])
               {
                  System.out.println("row");
                  return false;
               }
            }
         }
      }

      //check columns
      for(int c=0;c<array.length;c++)
      {
```

```
         for(int r=0;r<array[c].length;r++)
         {
            for(int i=0;i<9;i++)
            {
               if(r != i && array[r][c] == array[i][c])
               {
                  System.out.println("columns");
                  return false;
               }
            }
         }
      }

      //check squares
      int x2 = 3;
      int y2 = 3;

      for(int y=0;y<9;y=y+3)
      {
         for(int x=0;x<9;x=x+3)
         {
            for(int r=y;r<y2;r++)
            {
               for(int c=x;c<x2;c++)
               {
                  for(int r2=y;r2<y2;r2++)
                  {
                     for(int c2=x;c2<x2;c2++)
                     {
                        System.out.println(r+" " + c + "    " + r2
+""+c2);
                        if(r != r2 && c != c2 && array[r][c] ==
array[r2][c2])
                        {
                           System.out.println("squares");
                           return false;
                        }
                     }
                  }
               }
```

```
            }
            x2 = x2 + 3;



        }
        y2 = y2 + 3;
    }

    return true;

  }
}
```