1. Write a method `public static int max(int[][] a)`
   that returns the maximum value in the 2d parameter array `a`.

2. Write a method `public static int rowSum(int[][] a, int x)`
   that returns the sum of the elements in Row `x` of `a`.

3. Write a method `public static int columnSum(int[][] a, int x)`
that returns the sum of the elements in Column `x` of `a`.

4. Write a method `public static int[] allRowSums(int[][] a)`
that calculates the row sum for *every* row and returns *each* of the values in an array. Index i of the return array contains the sum of elements in row i. You should assume that rowSum is working as intended.

5. Write a method `public static boolean isRowMagic(int[][] a)`
that checks if the array is row-magic (this means that every row has the same row sum). You should assume that allRowSums is working as intended.

6. Write a method `public static boolean isColumnMagic(int[][] a)`
that checks if the array is column-magic (this means that every column has the same column sum). You should assume that columnSum is working as intended.

7. Write a method `public static boolean isSquare(int[][] a)`
that checks if the array is square (i.e. number of cols is the same as the number of rows).

8. Write a method `public static boolean isMagic(int[][] a)`
that checks if the array is a *magic square*. This means that it must be square, and that all row sums, all column sums, and the two diagonal-sums must all be equal. You should assume that all methods that you can use to help you are working as intended.