Lab 17

Instructions: Complete the steps below. Be sure to upload a copy of all your source code (.java) files to the link on Brightspace by its deadline, so that you can receive credit for this lab.

1. Write a method to sort a two-dimensional array using the following header:

```
public static void sort(int[][] m)
```

The method performs a primary sort on rows, and a secondary sort on columns.
For example, the following array

```
{{4, 2}, {1, 7}, {4, 5}, {1, 2}, {1, 1}, {4, 1}}
```

Will be sorted to:

```
{{1, 1}, {1, 2}, {1, 7}, {4, 1}, {4, 2}, {4, 5}}.
```

2. Design a class named `MyInteger`. The class contains :
   - An int data field named value that stores the int value represented by this object.
   - A constructor that creates a `MyInteger` object for the specified int value.
   - A getter method that returns the int value.
   - The methods `isEven()`, `isOdd()`, and `isPrime()` that return true if the value in this object is even, odd, or prime, respectively.
   - The static methods `isEven(MyInteger)`, `isOdd(MyInteger)`, and `isPrime(MyInteger)` that return true if the specified value is even, odd, or prime, respectively.
   - The methods `equals(int)` and `equals(MyInteger)` that returns true if the value in this object is equal to the specified value.

   Write a client program that tests all the methods in the class.

Grading Guidelines: This lab is graded on a scale of **0-3 points**, assigned as follows:

- **0 -** The student did not attend the lab,
- **3 -** The solutions are complete OR the student spent the entire lab solving the required lab problems (in this case, the students may not arrive at the lab after the lab started and may not leave until the lab ends).